The In-house Burials at the Late Ontario Iroquoian Draper Site (AlGt-2): A Multidirectional Approach to Interpretation

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Interments in longhouses have long represented an alternative to ossuary burial in the Ontario Iroquoian context, although they are less common in general. Beginning with Kapches (1976), researchers have made attempts to understand the impetus for in-house burials by making use of the ethnohistoric record. This article investigates the osteological and archaeological data pertaining to the in-house burials from the late fifteenth-century Draper site (AlGt-2) in the context of the ethnohistoric record from the early seventeenth century. In particular, the high proportion of infants interred at the Draper site, and in longhouses from other Iroquoian villages, is investigated by drawing on the writings of historic era missionaries and traders. While archaeologists have expressed concern regarding both the use of clearly biased ethnohistoric accounts and the utility of the direct historic approach to analogy, it is argued here that the construction of analogies through the use of ethnohistoric documents provides access to the cultural aspects of Iroquoian death and burial that are obscured by purely functional explanations. These include the importance of ideology and ceremonialism in the way in which death and burial are treated in Iroquoian communities.

Introduction

Most scholars investigating Ontario Iroquoian mortuary patterning have focused on ossuary interments, as this form of burial was the most common from the late fourteenth century until just after the arrival of Europeans two hundred years later. In the Ontario Iroquoian period, an ossuary can be defined as a burial pit in which multiple individuals are interred in a secondary context and in which the remains have been mixed so that most individuals are unrecognizable as such (Williamson and Steiss 2003). There is extensive archaeological evidence of ossuary burial, and this form of interment is described in great detail in several of the earliest ethnographic accounts on the Huron written in the early seventeenth century. Nevertheless, ossuary burial is not the only form of interment employed by the Ontario Iroquoians. Archaeological evidence suggests that there was at least one alternate form of interment: burial within the confines of settlements, particularly in longhouses. Kapches (1976) identified at least 12 sites at which burials were located, 8 of which had

burials within longhouses. Since 1976, 10 additional settlements with in-house burials have been excavated. In-house burials have now been recovered from the following sites: Crawford Lake, Antrex, Serena, Bennett, Myers Road, Dunsmore, Walkington 2, White, Draper, Mackenzie, Benson, MacPherson, Ball, Roebuck, Steward, Robitaille, Cahiague, and Hood (Table 1; see Forrest [2005] for additional details).

The earliest Iroquoian in-house burials have been recovered from Middle Ontario Iroquoian (MOI) sites (dating to 1350–1400 C.E.), and inhouse burial as a form of interment persisted for several decades after European contact in Ontario. Further, in-house burials are not restricted to a single Iroquoian subgroup: the Huron-Petun, Neutral, and St. Lawrence Iroquoian sub-groups all have at least one settlement from which inhouse burials were recovered (Table 1). Interest in in-house burials was initially piqued by Kapches' (1976) publication, but research regarding this burial form has remained relatively scarce since then. Kapches (1976) began to experiment with the idea that ethnography and ethnohistory might

Table 1. Ontario Iroquo.	ian In-house Burials.					
Site Name	Number of Burial Features/ Individuals in Houses	Adults (Male/Female/Indeterminate (M/F/I)	Adolescents	Juveniles	Infants	Researcher/Notes
		Middle Ontario 1	Iroquoian Period			
Crawford Lake	3/4	2 (1 F, 1 I)		2		Finlayson and Matson 1974, Finlayson 1998; cremated adult interred with one juvenile
Antrex	1/3	1	1	1		Thomas and Robertson 2010; commingled remains
Serena	1/2	2 (F)				Merrett 2004; both adults cremated and interred in same feature
Bennett	13/15	9 (4 M, 2 F, 3 I)		9		Wright and Anderson 1969; one adult interred with one juve- nile; one feature with two adults; two adult bundle burials
Myers Road	5/5	3		1	1	Williamson (ed.) 1998; one adult bundle
		Late Ontario Ir	oquoian Period			
Draper	14/15	2 (1 M, 1 F)	1	5	7	Forrest 2005; Huron
Dunsmore	5/1	3 (1 M, 1 F, 1 I)		2		Robertson and Williamson 2003; all commingled in same feature
Walkington 2	1/1				1	Crawford 2006; bone bead grave goods
White	5	3 (1 M, 2 F)	1		1	Hayden 1979; Huron; infant adjacent to female adult
Mackenzie-Woodbridge	2/2				2	Saunders 1986; buried adjacent to each other
Benson	3/3				3	Ramsden and Saunders 1987; Huron; separate interments
MacPherson	21/24	10 (4 M, 4 F, 2 I)		7		Saunders and Rogers, N.D.; Neutral; two possible infant- mother paired interments
Ball	9/9	3 (2 M, 1 F)		2	1	Knight and Melbye 1983; Huron; separate interments
Roebuck	?/20+	~	A.	~.	<u>~</u> .	Wintemberg 1936; St. Lawrence Iroquoian; 83 interments at the site; at least a quarter of these are in houses
Steward	3/3				ŝ	Wright 1972; St. Lawrence Iroquoian; two infants interred together in a single pit
Robitaille	2/2	2 I				Tyyska 1969; Huron; one possible torture case
		Historic	: Period			
Cahiague/Warminster	1/2				2	Kapches 1976; Huron; two infants interred together in a single pit
Hood	617	1 M		1	\$	Fitzgerald 1979; Neutral; two infants interred together in a single pit
TOTAL	100+ individuals	40+	3+	27+	33+	Data from Roebuck are excluded due to lack of detail provided

prove to be helpful in identifying the impetus for and characteristics of in-house burial among the Ontario Iroquoians. Later publications by Fitzgerald (1979) and Ramsden and Saunders (1987) attempted to use ethnohistoric observations to explain aspects of in-house burials at the Hood and Benson sites, respectively, but these represent the last published attempts to investigate in-house burials in the context of early historic ethnography.

This article will build on the above-mentioned analyses of the connection between ethnography and the archaeology and osteology of in-house burials by attempting to synthesize these lines of evidence from the Late Ontario Iroquoian (LOI) Draper site (AlGt-2). The object of this article is to augment our understanding of the practice of in-house burial through the use of ethnographic information in concert with archaeological and osteological information derived from the Draper site burials. The Draper site was a late fifteenthcentury Huron village located in what is now Pickering, Ontario. It began as a small, 1.2 hectare village of fewer than 400 people occupying seven longhouses, and underwent at least five expansions during the time it was occupied. The final size of the village is estimated to have been approximately 3.4 hectares, with a population of close to 2,000 people occupying 39 houses (Finlayson 1985:492). The portion of the village contained within the palisade wall was referred to as the "Main Village" in order to distinguish it from outlying structures also associated with the site. Eight houses were located outside the palisade, seven of these in the "South Field" area and one standing on its own to the southwest of the Main Village (Figure 1).

Burials were encountered at the Draper site in both the Main Village and the South Field. The 14 burial features found during the excavation of the site contained the remains of at least 15 individuals (Table 2). A preliminary, unpublished archaeological analysis of the burials, with some osteological analysis, was produced by Williamson in 1978. This was followed in 1979 by a preliminary published statement on the burials from the site, with some interpretive suggestions (Williamson 1979).

Table 2.	Draper	Burial	Summary.
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Burial	Provenience	Age	Sex
1	House 4	6-12 months old	-
2	House 10	25-34 years old	F
3	House 6	3-5 years old	-
4	House 2	birth ± 2 months old	-
5	House 2	birth ± 2 months old	-
6	House 6	50-60 years old	М
7	House 5	12 months old	-
8	House 6	birth ± 2 months old	-
9	House 29	3 years old	-
10	House 25	3 years old	-
11a	House 10	birth to 1 month old	-
11b	House 10	1-3 years old	-
12	House 29	3 years old	-
13	House 37	birth to 2 months old	
14	House 19	15 years old	-

The Draper site remains represent a unique opportunity to investigate the phenomenon of in-house burial in the Late Ontario Iroquoian period because the size of the sample is large in comparison with other sites from which in-house burials have been recovered (Table 1) and because the site dates to less than 200 years before the arrival of Europeans in southern Ontario.

Although in-house burials are not explicitly mentioned in the ethnographic literature, attitudes regarding death and burial expressed therein, as well as anecdotal evidence relating to burial of the deceased, can be useful in that they provide a point at which to begin investigating in-house burials. Specifically, the ethnographic literature identifies several segments of the Iroquoian population that were, in principle, actively excluded from ossuary burial: infants, children, the elderly, and victims of violent death. Subsequent research concerning Iroquoian cosmology has also resulted in the suggestion that chronically ill individuals and twins may also have been excluded from ossuary burial, and may therefore have been interred in longhouses (Fitzgerald 1979; Williamson 1978). It has been argued (Kapches 1976) that infants and young children are well represented in in-house burials, but that it is only possible to speculate concerning the presence of



Figure 1. Plan of the Draper site overlaid on the local topography (adapted from Finlayson [1985:Figure 3]).

victims of violent deaths, chronically ill individuals, twins, and the elderly.

This article will explore whether these segments of the population are represented at the Draper site and will draw comparisons to other Iroquoian villages from which in-house interments have been recovered.

Methodology

Ethnographic Analysis

This study relies on cross-disciplinary methodology drawn from the fields of ethnography (and ethnohistory); archaeology; and osteology. Researchers interested in the Ontario Iroquoians are extremely fortunate to have access to ethnohistoric documents produced during the time when contact first was made between Europeans and aboriginal peoples in Ontario. These are helpful resources; however, the biases inherent in these early accounts must be recognized in order for archaeologists to be able to use them to the fullest. The three accounts most useful for this analysis are those recorded by the explorer Samuel de Champlain, the Recollet priest Gabriel Sagard, and the Jesuits. These early sixteenth-century interlocutors were recording information selectively and for the purpose of either manipulating trade relations (as in the case of Champlain) or gathering sufficient data to begin the task of converting the Iroquoian people to Christianity (as in the case of the Recollets and Jesuits). In both cases, the ideological and political undercurrents running through their accounts can be a source of confusion for later researchers. Furthermore, these accounts were written in French and have subsequently been translated into English, which could distort the original meaning of the phrasing of the text. Also, these accounts have been edited extensively, which, depending on the motives and opinions of the editors, may have compromised their accuracy. Despite these problems, ethnohistoric accounts remain important resources for understanding Iroquoian life at the time of European contact. It is not unreasonable to assume that life just before contact may have been in many ways similar.

Archaeological Analysis

The archaeological methodology employed in this study relies, in part, on analogical interpretation, specifically the direct historic approach to analogy. In this formulation, non-observable behaviour is explained by referral to "relevant" observable behaviour (Ascher 1961). Much theoretical discussion has been devoted to weighing the merits and pitfalls of the direct historic approach, and to analogy in archaeology in general (see Wylie [1985] for an excellent summary of this discussion). In particular, it is important to recognize the potential danger of assuming that which one is attempting to discover. Furthermore, much of the interpretation based on analogy cannot be conclusively proven or disproven; there is no guarantee of the representativeness or the applicability of the source of the analogy to its subject (Wylie 1985). This aspect of historical analogy has caused some researchers to either advocate the abandonment of this technique in archaeology altogether or to advocate the extreme operationalization of analogy (as in the case of the "New Archaeology"). But, as Wylie (1988) argues, conventional historical analogy provides the potential to enhance the creativity of archaeological interpretation, leading to more thorough investigation. This creativity, however, is inherently political, and therefore subject to trends in archaeological theory. To this end, all conclusions should be treated as tentative, and, therefore, should be left open to subsequent reinterpretation based on revision of extant knowledge or the acquisition of new knowledge (Wylie 1985).

Osteological Analysis

The collection of the osteological data from the Draper remains was conducted in accordance with the protocol outlined by Buikstra and Ubelaker (1994). Since many of the individuals interred at the Draper site were infants and juveniles, additional osteological standards for the determination of age were used (Scheuer and Black 2000). It is easier to obtain more precise (narrower) age estimates from infant and juvenile remains than from adult remains. Dental formation and eruption as well as epiphyseal union were most often employed in determining age, as were long bone lengths, wherever possible. (Many of the infant long bones had already been sectioned before this analysis was undertaken; therefore, measurements of length could not be carried out on those bones.)

In this article, the term "infant" refers to those individuals under or at the age of 12 months, "juvenile" refers to pre-pubertal individuals older than 12 months, "adolescent" refers to individuals at the age of puberty or older who are still skeletally immature, and "adult" refers to skeletally mature individuals.

Ethnographic Evidence for In-house Burials

The Works of Samuel de Champlain

Samuel de Champlain's observations on the Ontario Iroquoians and neighbouring groups (Biggar [1922-36]) were written in the first two decades of the seventeenth century. Champlain was forced to winter with the Huron in 1615, and his account of his stay is largely focused on political structures and trade relations among the Huron and neighbouring groups. He provides very little information regarding Iroquoian mortuary behaviours; instead, he focuses on the various ways in which Iroquoians die or are killed. Champlain had the opportunity to accompany the Huron in their efforts at waging war against the Five Nations (New York) Iroquois, and deaths in combat as well as the torture of captives are well recorded. In particular, Champlain provides a detailed account of the torture of Etienne Brulé by the New York Iroquois, in which Brulé was burned and had his fingernails and part of his beard torn out (Biggar 1922-36:3:221-224). Unfortunately, injuries of this type would not be observable skeletally. Champlain's account is useful mainly as confirmation that torture was occurring among Iroquoian groups, and that it may not be altogether unexpected to encounter remains interred in a longhouse showing signs of torture in this context. Indeed, the remains of sacrificed prisoners have been found in fifteenth century ancestral Huron villages (Rainey 2002; Williamson 2007). The overlap between Champlain's accounts and those of the Jesuits (discussed below) regarding mortuary behaviours of neighbouring groups suggests accuracy in reporting and may point to regional similarities in mortuary behaviours.

Gabriel Sagard: The Long Journey to the Country of the Hurons

While Champlain's work is largely about trade and politics among the groups with which he had contact, Recollet priest Gabriel Sagard's 1632 account of his year living with the Huron reads more like an ethnography than any other account from this time period. Despite the obvious proselytizing tone, Sagard makes an effort to record even those aspects of Huron life that would have been considered unsavoury to most Europeans at the time. When he provides details regarding mortuary customs, Sagard's main focus is on ossuary burial; however, he does make mention of several other aspects of Iroquoian mortuary customs that are applicable to the study of in-house burials. Sagard notes that primary interments before ossuary burial generally involve the body being flexed and wrapped even before death. After death, the wrapped body is placed in a "tomb" raised on poles or interred in the ground with such a tomb erected over the grave (Sagard 1939[1632]:208).

Sagard also provides an account of the killing of a war captive by the Huron that more closely matches the archaeological and skeletal evidence than Champlain's description. Sagard notes that the Huron would first shoot an enemy dead with arrows and then carry away his head. He also describes a second option of leaving the head and simply taking the dead man's scalp as a trophy (Sagard 1939[1632]:153).

Lastly, Sagard discusses the existence of a ceremony performed in the longhouse at birth in which an infant's ears are pierced and he or she is made to consume some edible oil.

The Jesuit Relations and Allied Documents

The Jesuit Relations are by far the best source of information regarding Ontario Iroquoian mortuary patterning. Several Jesuits were recording data on the Huron contemporaneously; therefore, observations can be independently verified within the texts. However, caution is again required in interpreting these texts, because they have been subject to extensive editing.

One of the foundational concepts for interpreting Ontario Iroquoian in-house burials stems from descriptions of the Huron belief in the immortality of the soul as described by the Jesuits (Thwaites 1896-1901:10:141-143). These accounts suggest that the Huron believed that each person had two souls, one that stayed with the body and could be reincarnated in his or her descendants, and another that either made the journey to the village of the dead after ossuary burial, was reborn as a turtledove, or travelled via the Milky Way to live with the mythological "first woman" Aataentsic and her son Iouskeha (Thwaites 1896-1901:13:251). This journey was arduous and strewn with obstacles that had to be overcome, but, once they had arrived, the dead would find that the village of the dead was much the same as villages of the living (Thwaites 1896-1901:10:143).

The souls of certain segments of the population are recorded by the Jesuits as being unable to make the journey to the village of the dead, and it is these individuals that are potential candidates for in-house burial. The ability to reach the village of the dead appears to be less contingent upon behaviour during life (as it is in the Christian tradition) than upon bodily condition at death. Since the journey was difficult, the Huron believed that infants, children, and the elderly might be physically unable to make the trip (Thwaites 1896-1901:14:51); their souls were said to occupy abandoned villages, sowing corn in the adjacent fields and collecting the roasted corn of villages that had burnt down (Thwaites 1896-1901:10:143-145). The Jesuits observed that infants under the age of two months could be buried along paths in the hope that their souls would be taken up into the womb of a woman passing by, thus ensuring rebirth (Thwaites 1896-1901:10:273, 15:183). One Huron woman is reported to have kept the body of her young son in her house for years after his death (Thwaites 1896-1901:39:29).

In addition, those who had died violent deaths—including suicides, torture victims, casualties of warfare, and victims of drowning and freezing—were also excluded from ossuary burial (Thwaites 1896-1901:10:145, 39:31). Concerning violent deaths, there is extensive ethnographic documentation by the Jesuits of Iroquoian warfare and the torture of captives. Torture could include being burned; having fingernails torn out; having fingers cut off; or being beaten, scalped, and defleshed (Thwaites 1896-1901:15:17). There is unfortunately no mention of what happened to the bodies after such torture.

According to the Jesuits, twins held a special place in Iroquoian cosmology. The birth of the twins Iouskeha and Tawiscaron to Aataentsic figure centrally in the Iroquoian creation myth, and the exploits of the brothers are related in numerous subsequent myths (Thwaites 1896-1901:10:129, 163). It is, therefore, not surprising that twins may have been afforded a special burial form.

As long as the caveats about their reliability are kept in mind, the relations prepared by the Jesuits during their stay among the Huron in the first half of the seventeenth century provide a great deal of information that can be used to generate hypotheses concerning in-house burials.

The Archaeology and Osteology of the In-house Burials at the Draper Site

Burial 1

Burial 1 was located in unit 190N-190E, in the middle of the floor, near the centre of House 4 (Figure 2). No other interments were present in House 4. Burial 1 was a primary interment, and the individual was laid out in a loosely flexed position on his or her left side, oriented east-west, with the head at the west and facing north. The individual was interred in a pit measuring 58 cm long, 45 cm wide, and 38 cm deep, and was discovered during the excavation of a subsoil feature directly above it. The burial itself was located at the bottom of this pit, in a charcoal layer and above a layer of fired soil. Burial 1 was in good condition and is missing few elements. Several elements have been thermally altered, particularly those on the left side of the body (adjacent to the layer of fired soil). Those elements that are particularly affected by thermal alteration are the left ribs and the left cranial elements, including the mandible.

Examination of the osteological attributes indicates that this burial contained an infant of indeterminate sex between the ages of six months and one year. The metopic suture had yet to close; the occipital bone still consisted of three elements, with the basiocciput measuring 15 mm in length; and the incisors had just begun to form roots, while all other deciduous teeth were represented only by crowns. Since the long bones of this individual had been previously sectioned, postcranial metrics could not be used in the evaluation of age; however, the long bone epiphyses had not yet begun to unite with the diaphyses, nor had the segments comprising the vertebrae commenced fusing with each other. There were no other distinguishing features or pathological conditions that might aid in the description of lifestyle or the determination of the cause or manner of death of this individual.

Burial 2

Burial 2 was located in unit 220-230, in the northeast half of House 10, near the centre of the house (Figure 2). Burials 11a and 11b were also found in this house. Burial 2 was a primary burial, with the individual laid out in a flexed position on her right side in an east–west orientation, with the head to the west and facing south. The individual was interred in a pit measuring 166 cm long, 42 cm wide, and 42 cm deep. Pottery and bone fragments and firecracked rocks were recovered from the fill, as were carbonized plant remains. Despite some evidence of rodent activity within the burial pit, the bones were in good condition and were in articulation at the time of excavation (Williamson 1978).

The remains of this individual indicate that this was a female between the ages of 25 and 34 years. In the cranium, there was minimal expression of the nuchal crest of the occipital bone; the supraorbital margins of the frontal bone were moderately sharp; and the supraorbital ridges of the frontal bone were smooth, with little projection at the midline. These, in addition to a prominence of the ventral arc, a concave subpubic region, and a narrow and crest-like ischiopubic ramus ridge in the pelvis, are all female characteristics. The cranial sutures were open, the third molars had erupted, the dentition in general showed moderate wear, and the pubic symphysis and auricular surface retained youthful characteristics, indicating an age in the late twenties to early thirties.

In addition to determining the age and sex of the individual, aspects of pathological conditions, traumas, and occupational markers were also recorded. This individual displayed signs of exten-



Figure 2. Plan of the Draper site showing the locations of the burials (after Finlayson [1985]).

sive osteophytic lipping on several elements, including the lumbar vertebrae and sacrum as well as both innominates. Mann and Hunt (2005) argue that osteophytosis is a common condition in all populations and that in younger individuals it is often the result of trauma.

The teeth of this individual had been subject to severe attrition, particularly on the first and second maxillary molars, which is unusual for a young adult. Caries are commonly seen in Iroquoian remains, and this individual had several on her maxillary molars. All teeth present had moderate to severe dental calculus.

A close examination of the postcranial remains of this individual revealed several elements with plaque-like lesions. Those elements most affected by these lesions were the vertebral ends of the right and left ribs and the diaphyses of the phalanges and metacarpals. The long bones of the arms and legs were also affected, but to a lesser extent. Periostitic lesions of this type, concentrated on the ribs and hands, are often associated with respiratory infections (Mann and Hunt 2005; Rothschild and Rothschild 1998). These lesions appear to be a non-specific periosteal reaction; that is, the disorder underlying an inflammatory response of this type is extremely difficult if not impossible to identify. Rothschild and Rothschild describe a condition known as hypertrophic osteoarthropathy that is consistent with lesions of this type (plaque or "appliqué" lesions), that is, lesions that appear to be extensions of the cortical bone (1998:2224). The underlying cause of hypertrophic osteoarthropathy can be diseases such as tuberculosis and other chronic intrathoracic infections, intrathoracic cancer, and endocarditis. Pfeiffer (1991) describes three types of lesions that are often associated with tuberculosis: plaque-like lesions, lesions involving cortical expansion, and lesions involving cortical resorption or erosion. In addition to the plaque-like lesions, this individual displayed evidence of enlarged and thickened cortical bone at the vertebral ends of the ribs, giving the rib ends a "clublike" appearance (Figure 3). According to Mann and Hunt, this is consistent with tuberculosis (2005:114). It is therefore possible that this individual suffered from a chronic respiratory condi-



Figure 3. Ventral view of a left rib of Burial 2 displaying periosteal expansion at the sternal end.

tion, although indicators for the specific condition are inconclusive.

In summary, then, this individual had extensive osteophytosis in the pelvic area; dental pathological conditions including severe wear, caries, and calculus; and a respiratory infection serious enough to have caused bony involvement.

Burial 3

Burial 3 was located in unit 200-200, along the midline near the centre of House 6 (Figure 2). Two other burials, Burials 6 and 8, were also recovered from this house. Burial 3 was a primary burial of an individual interred in a flexed position on his or her left side with the head oriented to the south and facing west. The individual was interred in a rectangular pit with a bell-shaped profile, measuring 68 cm long, 42 cm wide, and 47 cm deep. The state of preservation of this individual's remains is excellent, and few elements are missing.

No attempt was made to determine the sex of this individual, because reliable measures have yet to be developed for the determination of the sex of infants and juveniles. The age of this individual was estimated to be between three and five years old. The metopic suture had been obliterated, the basiocciput measured 18 mm long by 22 mm wide, and the deciduous dentition was fully formed. The permanent dentition, represented by the crowns of the maxillary first incisors and the maxillary and mandibular first molars, had yet to erupt. The long bones of this individual had been sectioned, which means that postcranial metrics Ontario Archaeology

could not be applied. No epiphyseal union was present in the long bones, but the third and fourth sternebrae had fused, and in the vertebral column the neural arch halves had fused together but were only partially fused with the centra in most cases. There were no other distinguishing features or pathological conditions that might aid in the description of lifestyle or the determination of the cause or manner of death of this individual.

Burial 4

Burial 4 was located in unit 120-270, along the midline near the centre of House 2 (Figure 2). Directly adjacent to him or her in this house was Burial 5. Burial 4 was a primary interment, with the individual in a flexed position on his or her left side with the head to the northwest and facing north. The pit in which the individual was interred measured 37 cm long, 16 cm wide, and 34 cm deep and was basin-shaped in profile. The individual was exposed during the initial 1973 field survey, but was not disinterred until the 1975 complete excavation of the Draper village (Williamson 1978). As a result, the remains were in poor condition when they were excavated, although the elements were still in articulation. Several elements were, however, missing when the burial was finally disinterred. These included the scapulae and the right radius and ulna (Williamson 1978). The clavicles, patellae, and several cranial elements, including the basiocciput, were also found to be missing when an inventory was conducted in the summer of 2005 by this author.

An examination of the osteological attributes of this individual revealed that these were the remains of an infant of indeterminate sex aged at birth \pm two months. The two halves of the frontal bone had yet to unite; there was no union of the neural arches of the vertebrae; and, although the crowns of the anterior dentition had largely finished forming, the deciduous teeth had yet to erupt. The long bones of this individual had been sectioned, so that postcranial metrics could not be employed; there was no epiphyseal union present. There were no other distinguishing features or pathological conditions that might aid in the description of lifestyle or the determination of the cause or manner of death of this individual.

Burial 5

Burial 5 was located in unit 120-270 in House 2, approximately one metre northwest of Burial 4, in the centre of the house (Figure 2). This burial was a primary interment of an individual in an extended position on his or her back with the head to the northwest. The pit in which the individual was interred was basin-shaped and had dimensions of 26 cm long, 14 cm wide, and 34 cm deep. This burial was also originally exposed during the 1973 field survey and was subsequently disinterred during the 1975 excavation. Like Burial 4, it suffered from poor preservation, and the elements of the lower body, including the innominates, were entirely missing by the time it was excavated. The right humerus was also missing, as were portions of the elements of the lower limbs of both arms.

An examination of the remains of this individual indicated an infant of indeterminate sex aged at birth ± two months. The frontal bone was still represented by two segments; the basiocciput measured 13 mm in length by 13.5 mm in width; the neural arches of the vertebrae had yet to unite; and, although the crowns of the anterior dentition were largely fully formed, the deciduous dentition remained unerupted. The left humerus was the only long bone available for metric analysis; it measured 63 mm in length by 19.7 mm in width. No epiphyseal union had commenced. There were no other distinguishing features or pathological conditions that might aid in the description of lifestyle or the determination of the cause or manner of death of this individual.

Burial 6

Burial 6 was located in unit 190-200, along the midline and in the centre of House 6, approximately ten metres southeast of Burial 3 and five metres northwest of Burial 8 (Figure 2). It was a secondary interment of an individual in a bundle burial. The remains were arranged in an orderly fashion, with the vertebrae lying beneath the bones of the feet, on top of which were arranged

the ribs and the long bones of the lower body. The cranium was situated to the northwest, while the innominates, sacrum, sternum, and calcaneus were found in the southwest portion of the pit (Williamson 1978). The elements comprising the arms and the shoulder girdle were noted as missing during excavation. The pit in which the individual was interred was packed with loose sand and measured 50 cm long by 35 cm wide by 30 cm deep.

In order to determine the sex of the individual, both the cranium and the innominates were examined. The features of the cranium highlighted by Buikstra and Ubelaker (1994) were evaluated first and included rounded, blunt supraorbital margins and prominent suprarorbital ridges and mental eminence, indicating that this individual is male. Evaluation of the innominates, including the presence of a convex subpubic region, and narrow greater sciatic notch, and broad ischiopubic ramus ridge also indicated that this individual is male.

Since the cranial and postcranial skeletal remains were largely intact, these were evaluated in order to determine age. This individual was estimated to be between 50 and 60 years of age at the time of death. The cranial sutures had closed, indicating an "old adult." An examination of the dentition of this individual revealed that all teeth were worn extensively and that only one maxillary tooth and six mandibular teeth were present. The maxillary and mandibular molars had been lost and their alveolar sockets had been resorbed at some time prior to the death of the individual. Although no concrete estimate of age could be made according to these observations, it is likely that this person either consumed an extremely coarse diet or was of an advanced age. The pubic symphyses and auricular surfaces of the innominates showed signs of degeneration (erosion and irregular ossification), also indicating an age between 50 and 59 years old.

Aspects of pathological conditions, traumas, and occupational markers were also recorded. This individual displayed signs of extensive osteophytosis on several elements, including the vertebrae, vertebral ends of the ribs, and the innominates. In older individuals, osteophytosis is often the result of osteoarthritis or degenerative joint disease (Mann and Hunt 2005).

As noted above, the teeth of this individual had been subject to extensive attrition, and the posterior portions of the mandible and maxilla are edentulous. Caries were detected on several teeth, and abscesses were observed on the maxillary alveolus above the right first incisor and the right canine, as well as on the mandibular alveolus below the right first premolar. Angular attrition of the first premolar may also have been caused by pipe wear.

Like Burial 2, this individual also displayed signs of a respiratory infection that involved bony lesions. Plaque-like lesions were observed on the internal surface of some of the right and left ribs. In addition, the sternal end of the left clavicle had a porous, erosive appearance. This is consistent with a diagnosis of tuberculosis (Ortner and Putschar 1985:157). The costal facets of the sternum, instead of displaying a normal, smooth morphology, had deep pits in the centre. Further, the twelfth thoracic vertebra and the first and second lumbar vertebrae were fused together. While this fusion could be attributed to a compression fracture due to osteoporosis, the presence of both new bone formation as well as bone resorption are more consistent with a disease process than degenerative, age-related processes (Ortner and Putschar 1985:45). This individual thus displays several characteristics often associated with pulmonary tuberculosis (Pfeiffer 1991).

In addition, large pitting was observed on the interior surface of the cranial vault. Mann and Hunt (2005) note that enlargements of the pacchonian pits and arachnoid granulations are common in older individuals and are not necessarily pathological in nature. This could be the case for this individual.

Several elements of this individual displayed perimortem cut marks: the frontal, parietal, and temporal bones of the cranium; the right and left ribs; the medial portion of the right femoral neck; and the distal lateral shaft and medial proximal shaft of the right femur. The cranial cut marks may be indicative of scalping (Milner et al. 1991), while the other cut marks are consistent with defleshing (Williamson 1979). In addition, an Onondaga chert fragment was embedded in the posterior aspect of his left femoral neck. There is no sign of bony reaction that would indicate that the injury had begun to heal, indicating that the trauma had probably been incurred shortly before or after death. X-ray imagery of the chert fragment in situ demonstrates that it is consistent with the morphology of a projectile point tip (Williamson 2008 pers. comm.).

Fracturing was evident on one element only. The left temporal bone near the coronal suture displayed a depressed fracture (affecting the outer table only) measuring approximately 6 cm across (Figure 4). There is no evidence that this fracture had begun to heal at the time of death.

In summary, Burial 6 was a male individual in his fifties who had carious lesions on his teeth, extensive dental attrition, abscessing, and antemortem tooth loss. He displayed evidence of a respiratory infection that could be tuberculosis, as well as trauma to his head and hip. He also displayed cut marks on his cranium and on several postcranial elements.

Burial 7

Burial 7 was located in unit 110-215, in the southeastern half of House 5, along the midline, near the centre (Figure 2). The burial was a secondary interment, with the individual laid out in a flexed position with the head to the northeast and facing north. The measurements of the irregularly shaped pit in which the individual was buried are 130 cm long, 81 cm wide, and 31 cm deep. Several pottery sherds and carbonized plant remains were recovered from the fill. The skeletal remains were in fair condition and were still in articulation at the time of excavation.

This individual was a juvenile of indeterminate sex aged at approximately one year old. The frontal bone was still represented by two segments, the basiocciput measured 15 mm long by 17.5 mm wide, and the neural arches of the thoracic and lumbar vertebrae had begun to unite. Examination of the dentition revealed that only six teeth had been preserved and that all are mandibular. Several of the deciduous incisors have roots that were one-quarter to one-half complete,



Figure 4. Depression fracture on the left frontal and temporal bones of Burial 6.

while the second molar on the right side had a complete crown but no root. Since the long bones of this individual had been sectioned, postcranial metrics were not used in the determination of age. There were no other distinguishing features or pathological conditions that might aid in the description of lifestyle or the determination of the cause or manner of death of this individual.

Burial 8

Burial 8 was located in unit 185-200, along the midline, near the centre of House 6, approximately 5 metres southeast of Burial 6 and 15 metres southeast of Burial 3 (Figure 2). This was a primary interment of an individual laid out on his or her right side in a flexed position with the head to the south and facing west. The basinshaped pit in which the individual was interred measured 88 cm long, 60 cm wide, and 33 cm deep. The remains are generally in a good state of preservation, but evidence of rodent activity was noted during the excavation (Williamson 1978). Examination of the skeletal remains of this individual indicated an infant of indeterminate sex who died at birth ± two months. The two halves of the frontal bone had yet to fuse, the basiocciput measured 12 mm long by 15 mm wide, the neural arches of the vertebrae had yet to unite, and the tympanic ring portion of the temporal bone was still present and separate from the squamous and petrous portions. An examination of the dentition of the individual revealed that the crowns of the deciduous dentition had begun forming but were unerupted. The incisors were the most developed of the deciduous dentition, with crowns that were three-quarters complete. Since the long bones of this individual had been sectioned, postcranial metrics were not used in the determination of age; no epiphyseal union was observed.

This individual had a union of the first and second left ribs at the sternal end, which, given to his or her young age, is likely a congenital condition. Several publications have suggested that bicipital (merged) ribs like those of this individual may be indicative of segmental disturbance caused by malformed or absent sternebrae (Barnes 1994; Mann and Hunt 2005). In particular, merging of this sort most often affects the first and second ribs (Barnes 1994). Unfortunately, the sternebrae of this individual were not recovered from their archaeological context; however, the morphology of these ribs is consistent with congenital merging. This abnormality is relatively common and most often asymptomatic (Scheuer and Black 2000).

Burial 9

Burial 9 was located in unit 200-300, at the southeast end of House 29, along the midline of the structure (Figure 2). It was a primary burial of an individual laid out on his or her back but leaning to the right, with the head at the south. The rectanguloid pit in which the individual was interred was 90 cm long and 28 cm wide, with a depth of only 5 cm from the subsoil surface. The fill was mottled with topsoil, hard clay, and charcoal and had several root intrusions, which, combined with the shallow nature of the pit, resulted in poor preservation of the skeletal remains (Williamson 1978).

Examination of the remains of this individual revealed that Burial 9 represented a juvenile of indeterminate sex aged at approximately three years old. The cranial remains were extremely fragmentary, which meant that only the dentition could be evaluated in order to estimate age. All deciduous teeth had erupted and were in occlusion, while the crowns of the incisors, canines, and first molars had begun forming in the crypts. Postcranial metrics could not be used in the determination of age of this individual because the remains had been sectioned. The postcranial remains were very fragmentary, but it is nevertheless obvious that the epiphyses had yet to unite with the diaphyses of the long bones, while the neural arches of the cervical and thoracic vertebrae were completely fused but had not yet fused with the centra. There were no other distinguishing features or pathological conditions that might aid in the description of lifestyle or the determination of the cause or manner of death of this individual.

Burial 10

Burial 10 was located in unit 270-160, in House 25, at the southeast end, near the middle of the structure (Figure 2). It was a primary interment of an individual in a flexed position on his or her right side, with the head to the south and facing east. The pit in which the individual was interred was ovate and measured 97 cm long, 64 cm wide, and 34 cm deep. The fill was mottled with topsoil, subsoil, and clay, and root disturbance was evident in the pit. As a result of these conditions, the preservation of the skeletal remains was poor. Many of the skeletal elements had decomposed, leaving only a stain behind. Those elements that were recovered included most of the cranial bones and two ribs.

This individual was estimated to be a juvenile of indeterminate sex aged at three years old. Due to the poor preservation of this individual, only the cranial remains were examined in order to determine age-at-death. The metopic suture on the frontal bone had been completely obliterated; the lateral, squamous, and basioccipital portions of the occipital bone had yet to unite; and the basiocciput was 18 mm in length and 23 mm in width. All deciduous teeth had erupted and were in occlusion, while the crowns of the incisors, canines, and first molars had begun forming in the crypts. There were no other distinguishing features or pathological conditions that might aid in the description of lifestyle or the determination of the cause or manner of death of this individual.

Burial 11

Burial 11 was located in unit 205-250, in the eastern half of House 10, near the midline and approximately 25 metres from Burial 2 (Figure 2). Burial 11 is composed of two individuals (individual 11a and individual 11b) who were interred in the same pit and whose remains were commingled. It was difficult to infer body positioning due to the commingled nature of the remains. The remains were assessed according to the standards provided by Buikstra and Ubelaker (1994) for coding commingled remains. The pit in which the individuals were interred measured 60 cm long, 44 cm wide, and 20 cm deep; the sandy clay fill contained pottery and faunal remains (Williamson 1979).

Burial 11a. Burial 11a was represented by both cranial and postcranial remains. Both were examined in determining age and sex. This individual was an infant of indeterminate sex aged at birth but probably no older than one month. There had been no union of the lateral, squamous, and basioccipital portions of the occipital bone; the basiocciput was 11.5 mm long and 16 mm wide; and there was no union between the squamous and petrous portions of the temporal bone (the tympanic ring had not been preserved). Unusually for an archaeological context, the greater wings and body of the sphenoid of this individual had been preserved. The right greater wing had partially fused to the body, while the left greater wing remained unfused. Because this union generally occurs after birth (Scheuer and Black 2000), this means that the individual was likely not prenatal. Examination of the dentition revealed that the deciduous teeth were still unerupted buds embedded in their alveolar crypts. The long bones of this individual had been sectioned, which means that no postcranial metric analysis could be conducted. Data was collected from the vertebrae, however. There was neither union between the two halves of the neural arches nor union between the neural arches and the centra of the vertebrae. There were no other distinguishing features or pathological conditions that might aid in the description of lifestyle or the determination of the cause or manner of death of this individual.

Burial 11b. Burial 11b was determined to be a juvenile of indeterminate sex between the ages of one and three years old. It was represented only by post-cranial remains—either no cranial remains were preserved or no cranial remains were included in the interment of this individual. If the latter is true, then Burial 11b may have been a secondary burial. The

left ulna measured 102 mm in length, the left radius measured 90 mm in length, and the left femur measured 148 mm in length. These measurements all indicate that the individual was approximately 1.5 years old (Gindhart [1973] and Maresh [1970], cited in Scheuer and Black [2000]). The neural arches of the cervical and thoracic vertebrae were completely fused but were not yet fused with the centra. There were no other distinguishing features or pathological conditions that might aid in the description of lifestyle or the determination of the cause or manner of death of this individual.

Burial 12

Burial 12 was located in unit 210-220, in House 29, in the northeast half of the house and along the midline of the structure (Figure 2). It was a primary burial of an individual interred in a flexed position on his or her right side with the head facing to the left. The head was to the southeast facing northeast. The pit in which the individual was interred measured 70 cm long by 40 cm wide and was very shallow (Williamson 1978). The individual was interred with a marginella shell necklace around his or her neck, and several bone artifacts and pottery sherds were recovered from the fill. The marginella shells were recovered from under the mandible in the vicinity of the cervical vertebrae (Williamson 1978).

This individual was aged at approximately three years old and the sex could not be determined. The metopic suture of the frontal bone had been obliterated; the lateral, squamous, and basioccipital portions of the occipital bone had yet to unite; and the basiocciput yielded dimensions of 18 mm long by 24 mm wide. The deciduous teeth were all present and in occlusion, while the permanent teeth were present but remained unerupted; the first molars were just beginning to develop roots. The long bones of the postcranial skeleton had been sectioned, which means that metric analysis could not be conducted. The epiphyses and the diaphyses of the long bones had yet to unite, while the two halves of the neural arches of the vertebrae had fused together, although the neural arches had yet to unite with the centra. There were no other distinguishing features or pathological conditions

that might aid in the description of lifestyle or the determination of the cause or manner of death of this individual.

Burial 13

Burial 13 was located near the north wall in the eastern half of House 37, in the South Field portion of the Draper site environs (Figure 2). It was a primary burial of an individual in a flexed position on his or her left side with the head lying to the southeast. The ovate pit in which the individual was interred measured 64 cm long, 50 cm wide, and 14 cm deep. Fish bone was recovered from the fill. The burial had been disturbed during the excavation process, but most elements were recovered.

Examination of the remains indicated that this was an individual of indeterminate sex aged at between birth and two months old. The basiocciput measured 13.5 mm long and 12.5 mm wide, and all deciduous teeth were present but were unerupted. The neural arch halves of the vertebrae had yet to unite with each other.

The long bones of this individual had not been sectioned, so metric analysis was possible for those long bones that were complete. The right and left humeri measured 67.5 mm long, and the right and left radii measured 54 mm in length.

Examination of the lower limb bones of this individual revealed that the right and left femora, tibiae, and fibulae had reactive bone along the surface of the diaphyses (Figure 5). They exhibited a porous texture as well as a constricted appearance at the midshaft due to loss of cortical bone that is consistent with periostitis (Ortner



Figure 5. Left and right femora of Burial 13 with periositis. Note the loss of cortical bone at the midshafts.

and Putschar 1985). Ortner and Putschar (1985) identify two forms of periostitis: primary and secondary. While primary periostitis is a condition in itself and is uncommon, secondary periostitis is an inflammatory response due to an underlying condition and is extremely common. For example, in areas in which the bone lies close to the surface of the skin (as in the tibia), secondary periostitis can result from traumas involving a piercing of the periosteum and the introduction of foreign pathogens (Mann and Hunt 2005; Ortner and Putschar 1985). Alternatively, periostitis may also result from a prolonged febrile state, with the periostitic reaction being generalized rather than being localized, as in the case of trauma (Ortner and Putschar 1985). It was not possible in this case to determine whether the periostitis observed here was primary or secondary; however, since the periostitis was not localized, it was probably not caused by trauma.

Burial 14

Burial 14 was located at the southwestern end of House 19, along the midline of the structure (Figure 2). It was a primary burial of an individual in a tightly flexed position on his or her right side with the head at the west and facing south. The pit in which the individual was interred measured 20 cm in both length and width and was "deep" (Williamson 1978:33). The fill included pottery sherds, including a rim castellation fragment, and several faunal fragments, including a potentially worked mammal bone. Due to the clay subsoil conditions, the individual's skeletal remains were fragmentary.

This individual appears to have been a subadult of indeterminate sex approximately 15 years of age. The cranial remains were so fragmentary that no information on sutural closure could be obtained. The dentition was in good condition, though, and the deciduous dentition of this individual had been entirely replaced by permanent dentition. The permanent third molars were present in their crypts but were unerupted, and the teeth exhibited very few signs of wear, potentially indicating that this individual was young or ingested a non-abrasive diet. The long bones were too fragmentary to collect metric data, but information concerning epiphyseal union could be obtained. There was no evidence of a fused or fusing medial epiphysis on the clavicle, the acromial epiphysis of the scapula was present but unfused to the body of the scapula, and the head of the femur had yet to fuse to the diaphysis. The sacral laminae had fused, but the sacral segments had yet to fully fuse.

Several interesting pathological conditions that may be related to one another were observed on the lower limbs of this individual. The fibulae and the proximal end of the right tibial diaphysis appeared to have a layer of newly deposited bone on the surface of the diaphyses, as did the left femur. This new tissue was consistent with nonspecific, active periostitis (Ortner and Putschar 1985). The left tibia had a gnarled, rough, and uneven appearance (Figure 6). There were large cloacae for the drainage of infection on the surface of the shaft, and both the cancellous and cortical bone were affected. This appearance is consistent with osteomyelitis, although lesions of this type are also associated with tuberculosis and syphilis (Mann and Hunt 2005; Ortner and Putschar 1985).



Figure 6. Left tibia of Burial 14 with extensive osteomyelitis.

Discussion

Infants and Young Children

A review of the ethnographic record regarding inhouse burials reveals that certain segments of the Iroquoian population are more likely to have been excluded from ossuary burial than others. While cemetery burial was certainly a possible alternative, few cemeteries associated with settlements have been identified from this period, and in-house burial, while still relatively rare, could also have been an option for those excluded from the ossuaries. The ethnographic record is unfortunately silent concerning the age of individuals who may be represented in in-house burials, but the expectation is that, because of their rarity in ossuary settings, a higher proportion of infants and elderly individuals may have been interred intramurally.

An examination of the remains of individuals from the Draper site reveals that the most wellrepresented age group in the Draper in-house burials is infants between the ages of seven fetal months and 2 months postpartum (n=5) (Table 1). One-third of all the individuals represented at the Draper site are individuals aged at birth ± two months, and infants make up one-half of all in-house burials at Draper (n=7). Juveniles between the ages of one and five years old are the next best represented (n=5). Adolescents are represented by only a single individual. No adults between the ages of 16 and 24 years are represented. One individual is aged between 25 and 34 years. There are no individuals between the ages of 35 and 49 years. But there is one adult above the age of 50 years.

In absolute terms, the sample size of the Draper burials is small: only 15 individuals were recovered from burials within houses. Compared with other sites that have burials, however, the Bennett; Roebuck (potentially if not definitively); and MacPherson sites are the only ones to have the same number or larger numbers of in-house burials. Consistent with prior research on several other occupational sites (Fitzgerald 1979), almost one-half of those represented at Draper are infants.

The archaeological findings concerning the age groups represented at the Draper site fit a general pattern of infants being well represented, and, in several cases, disproportionately highly represented, in in-house burials at Iroquoian sites. The small sample sizes of the in-house burials at Iroquoian sites make it difficult to compare absolute numbers, but, at the very least, only one site, Robitaille, has only adults interred in houses. The Hood site matches the patterning at Draper most closely: infants and juveniles make up over half of all those interred at the Hood site. In addition, the Hood site also fits the pattern observed at Draper of lateterm and early post-partum infants making up the largest proportion of individuals. It is possible that these patterns may be affected by sample size because only seven individuals were interred at the Hood site. A Pearson's Chi-Squared test demonstrated that the similarities between the number of infant interments at the Draper and Hood sites is statistically significant ($x^2 = 10.8$, p = 0.05).

The low numbers of infants and children in ossuaries could reflect their interment intramurally. The description in the Jesuit Relations of a mother keeping the body of her dead young son in the longhouse in which she dwelt certainly seems to suggest that it was culturally acceptable for the bodies of the young dead to occupy the same space as the living. In addition, the ceremony performed at birth involving the consumption of edible oil and the piercing of ears suggests that the longhouse was considered a site suitable for ritual activities, perhaps burial. Ramsden and Saunders (1987) hypothesize that if an infant were to die shortly after birth, he or she might be interred in the longhouse (perhaps with the artifacts associated with that ceremony) for reasons of expediency. They argue that this might have been the case with a newborn infant interred in a longhouse at the Benson site, who was buried with a body sherd, a bone awl, a freshwater clam valve, and four articulated mustelid (likely marten) paws. These artifacts may also have been associated with the ceremony described by Sagard. The marten paws may have been attached to a skin in which the infant was wrapped; the clam valve may have held the oil that Sagard noted the infant was made to swallow after birth; and the bone awl may have been used to pierce the infant's ears (Ramsden and Saunders 1987).

If the interment of infants in the longhouse was considered appropriate, this could result in the observed patterning of high proportions of infants aged at around birth being interred inside houses. In addition, the evidence for the use of fire and the burning of food items such as maize as well as the (accidental?) burning of portions of infant remains may also be related to cosmological beliefs as mentioned in the ethnography (Ramsden and Saunders 1987). The infant remains from Burial 1 at the Draper site have several thermally altered elements, particularly those on the left side of the body, which was situated inferiorly and adjacent to a layer of charcoal in a shallow pit. Burial 7 and 9, also containing infant remains, had carbonized plant remains included in the burial pit, and similar charred organic material was also noted at the Benson and Hood sites. It is important here to note that, at the Draper site, only the infants had thermally altered floral or skeletal remains included in the burial pit. It is possible that a fire-related ceremony involving the interment of infants may have taken place at the Draper, Benson, and Hood sites, and the burning of maize could be associated with its ethnographic characterization as the food of the residents of the village of the dead (Ramsden and Saunders 1987). Even in instances in which no apparent ceremonialism is evident in longhouse burials of infants, cosmological beliefs regarding the nature of infant souls may still have been a factor in their interment in houses. As noted above, Kapches (1976) has suggested that the longhouse, being a well-trafficked area much like walking paths associated with settlements, may have been deemed suitable for infant interment so that, following the Huron belief recorded in the Jesuit Relations, their souls could be reincarnated in women walking by.

It has been suggested by others (Fitzgerald 1979), however, that in-house burials may simply have been the most expedient way in which to dispose of remains under certain circumstances. However, most arguments that emphasize that burial in longhouses would have been the most expedient way to dispose of dead neonates seem to be predicated upon the assumption that women gave birth inside the longhouse and not outside in the fields or in the woods (see, for example, Fitzgerald 1979). But assuming that some births did occur outdoors, away from the village, the expedient option would be to inter the child at

that location, rather than bringing him or her back to the longhouse.

Fitzgerald (1979) has argued that in-house interment would only be expedient in the winter, when women would be spending greater amounts of time in the longhouse and the frozen ground would be an impediment to burial outdoors. Palynological analysis may be able to identify the seasons in which the individuals from the Draper site were interred.

Fitzgerald (1979) has also suggested that some Iroquoian burials in houses may represent temporary, primary interments of individuals intended for ossuary burial. Indeed, in-house burials do tend to be flexed in the way described by Sagard, but his account suggests that these individuals were more likely to be interred in a cemetery context than within houses. This is not to say that in-house burial of these individuals could never have happened; rather, there is evidence that these individuals were often interred in cemeteries. The care taken in the interment of the adults at the Draper site also indicates the amount of ritual involved in their burial. Burial 6 is a secondary bundle burial that would have already have been exhumed and re-interred, and Burial 2 has large rocks placed directly above the burial and includes carbonized plant remains, which are suggestive of ritual.

The care taken in the interment of these individuals and their undisturbed, intact context stands in stark contrast to the fragmentary and incomplete nature of the human remains recovered from the recently reported Hutchinson site, a Middle Ontario Iroquoian site that appears to have been used primarily as a temporary cemetery associated with a village (Robertson 2004). The characteristics of the burials at the Draper site are not consistent with the temporary interment of individuals for later exhumation.

The Elderly

It could be argued that a relatively large proportion of individuals interred in longhouses should, in theory, be elderly, but this is not borne out by the evidence, nor does it make sense demographically. Only five skeletons recovered from longhouses and reported in the literature were identified as being over the age of 50 years: one such individual was encountered at MacPherson, Hood, and Draper, and two were encountered at Bennett (see Saunders and Rogers n.d., Fitzgerald 1979, Williamson 1978, Wright and Anderson 1969). From a paleodemographic perspective, the recovery of elderly individuals in any context would not be expected, because most individuals would be expected to die before reaching an "elderly" age. Therefore, the distribution observed in this case, in which few elderly individuals are recovered from in-house burials, should be considered normal.

Individuals Who Died Violently

The ethnographic record provides explicit details regarding violent deaths resulting from warfare and torture at the hands of Ontario Iroquoians. A notable torture candidate is an adult individual recovered from an in-house burial at the Robitaille site who displayed long bones that were split longitudinally and were "scratched," a cranium that was "pierced" and filled with phalanges, and missing ankle and foot bones (Tyyska 1969:81). Burial 6 from the Draper site is also a good candidate for a victim of violent death. Burial 6, a male in his 50s, was the only individual from the Draper site to display overt signs of trauma that were likely due to interpersonal violence. The most striking evidence of this violence is the chert fragment embedded perimortem in the femoral neck, which could be consistent with Sagard's account that enemies were often shot with arrows.

Burial 6 also displayed a depressed fracture on his left temporal bone. There is no evidence that this fracture had begun to heal at the time of death, and it is possible that it was incurred postmortem because there is no increased vascularity and no reactive bone. Burial 6 also displayed perimortem cut marks on several elements that had not begun to heal. Cut marks were encountered on the frontal, parietal, and temporal bones of the cranium; the external surface of the right and left ribs mid-thorax and running sagittally; the proximal portion of the right and left femora; and the proximal, medio-lateral portion of the left tibia. The cranial cut marks are consistent with Sagard's accounts of scalping methods.

However, the fact that the individual was interred in a secondary context leaves room for an alternate explanation. He may have simply been a casualty of warfare who was brought back to his own village for burial, and the scalping and defleshing may have been part of preparing the body for a secondary burial, in which the body is defleshed and bundled tightly.

While members of a community may not have provided an in-house burial for enemies that they had tortured, they may well have done so for one of their own. If the body of one of their comrades who had been tortured had been recovered, for example, from an enemy village, one might expect that this individual would have been given a proper burial in his home village. This could be the case for Burial 6. Whether this individual was a torture victim or a "fallen comrade," the coalescence between the ethnographic evidence and the archaeological and osteological evidence may indicate that in-house burial was a suitable form of burial for those having died violent deaths.

Individuals Who Were Chronically Ill

Recalling the mention in the *Jesuit Relations* that individuals who were not deemed fit to make the journey to the village of the dead were excluded from ossuary burial, Fitzgerald (1979) argued that the chronically ill also may have fallen into this category. This suggestion may be supported by data from the Draper site.

Several individuals interred in longhouses at the Draper site displayed skeletal abnormalities and pathological conditions. The most innocuous of these is the bicipital rib belonging to the infant interred in Burial 8, which would have gone unnoticed by the community. Periostitis, a non-specific skeletal reaction that can result from underlying conditions as diverse as trauma, infection, or fever, was observed on the skeletal remains of several individuals. Burial 13, an infant, displays signs of periostitis that had reached such an advanced state that the cortical bone of several long bones had begun to chip or flake away, resulting in a narrowed profile and a textured appearance to the surface. The generalized character of the periostitis in this individual is unlikely to have been the result of a specific, localized trauma; the underlying condition is more likely to have been febrile, resulting in the periosteal inflammation. The 15-year-old

interred in Burial 14 with mild periostitis in his or her lower limbs and extensive tibial osteomyelitis with large cloacae may have sustained trauma to the tibia and would have presented observable symptoms to the community. Blood poisoning is a possible cause of death. The conditions exhibited by both Burial 13 and Burial 14 were unlikely to have gone unnoticed in life, and may have marked them as unsuitable for ossuary interment.

Both of the adult individuals represented in the in-house burials display signs of extensive osteophytosis and arthritis and noticeable dental pathological conditions. These ailments would probably not have been debilitating, however, and the rest of the adult population living at the Draper site likely had these same conditions to similar degrees (see for example Patterson [1983]). What is interesting about the adults buried in longhouses at Draper is that they both display lesions on their ribs and bones of their fingers consistent with respiratory infection. Although individuals with tuberculosis and other respiratory infections are found in ossuaries (Pfeiffer 2003), if the condition was chronic and the person was severely disabled by it for a relatively extended period of time, he or she might have been deemed unable to make the journey to the village of the dead. Thus, the individuals from the Draper site with extensive periostitis, osteomyelitis, and debilitating respiratory conditions may have been classified as unsuitable for ossuary burial but suitable for burial within the settlement. There is little skeletal evidence to suggest that a high proportion of chronically ill individuals in relation to healthy individuals were interred in longhouses; however, it is possible that the individuals represented at Draper and elsewhere had chronic ailments that are not manifested skeletally, thus making them appear to be "healthier" than they actually were (Wood et al. 1992).

Twins

While no ethnographic observers noted the exclusion of twins from ossuary burial or their inclusion in in-house interments, several researchers have suggested the likelihood of infant twin burials in Iroquoian longhouses (Fitzgerald 1979; Kapches 1976; Williamson 1979). Indeed, because of the cosmological importance of twins, a theme that endured for centuries after the

Huron had dispersed from their historic-period settlements, it would be fitting that they receive a burial different from the general Iroquoian population. Twins are also much more likely to be recognized in the archaeological record when they have died and hence have been interred at approximately the same time and place. This would be more likely to occur with fetal or newborn twins than with older twins.

At the Draper site, Williamson (1979) postulated that burials 4 and 5, infants aged at around birth and interred with similar body positioning in adjacent pits in the same house, may be twins. At the time of European contact, longhouses were longitudinally bisected by a line of hearths spaced approximately five to seven metres apart, and two families shared a hearth, one on either side of the longhouse (Tooker 1964). If it can be presumed that it would be unlikely for one family to bury a member in another family's living space, then it is unlikely that those burials that are widely spaced but that are still in the same longhouse are from the same immediate family. It is possible, though, that a family would live in the same longhouse as other members of their extended family (and clan and so on), and that individuals within the same longhouse could be related, if distantly. The Steward, Cahiague, and Hood sites all contained burials with two infants interred in the same pit. These individuals were all interpreted as being related to each other on the basis of archaeological context. In addition, several sites contained interments of individuals in separate but adjacent pits. At the White site an infant and an adult female were recovered from adjacent pits, and at the Steward site an infant was interred in a pit next to another pit containing two infants. Both interments in adjacent pits were interpreted as containing the remains of individuals related to one another.

The sites potentially containing twin burials are the Draper, Steward, Cahiague, and Hood sites. All four sites contain two infants of the same age (approximately between birth and six months old) interred with similar bodily orientations. At the Draper site, the individuals (burials 4 and 5) are interred in separate but adjacent pits, while at the Steward, Cahiague, and Hood sites, the two infants are interred together in the same pit. It is impossible to definitively conclude that any of these interments contained twins, but it is possible that these interments contained relatives.

In order to further support the contention that burials 4 and 5 at the Draper site are twins, further exploration is required, in particular, dental histological investigation pinpointing the ages of these individuals to the day, comparison of non-metric traits, and comparison of heritable features of the cusps of the deciduous molars. These analyses are currently underway.

Conclusions

The ethnographic literature indicates that infants, juveniles, the elderly, the chronically ill, and victims of violence were candidates for exclusion from ossuary burial. It was postulated in this article and elsewhere in the literature that their exclusion from ossuary burial would instead make them likely candidates for in-house burial. The ethnographic sources suggest that infants and juveniles may have been buried in-house to facilitate the reincarnation of their souls in the wombs of women occupying the longhouses.

Infants and juveniles are indeed better represented at the Draper site than would have been expected considering the low proportion of infants in other burial contexts in Ontario. The elderly are not well represented in in-house burials for paleodemographic reasons. The chronically ill, victims of violence, and twins also appear to be represented at Draper, but the evidence regarding these classes of individuals is less conclusive.

In general, predictions regarding the composition of the in-house burials at the Draper site based on ethnographic accounts are borne out by the available evidence, bearing in mind caveats regarding the reliability of the ethnohistoric accounts and the degree of interpretation necessary in such an endeavour.

It is hoped that this article will result in the rejuvenation of interest in Iroquoian non-ossuary burials, because they are increasingly encountered today as a result of larger numbers of salvage excavations. In particular, the recognition of the utility of thorough osteological examination in concert with ethnographic evidence and archaeological interpretation is vital as long-term access to Iroquoian osteological collections becomes less tenable.

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Les enterrements à l'intérieur des maisons au site Draper (AlGt-2) pendant la période iroquoienne tardive de l'Ontario : une interprétation via une approche multidirectionnelle

Malgré qu'ils soient moins communs, les enterrements à l'intérieur des maisons longues ont longtemps été un alternatif aux inhumations par sarcophages dans le contexte iroquoien ontarien. En commençant par Kapches (1976), les chercheurs ont essayé de comprendre l'incitation des enterrements à l'intérieur des maisons en se servant de documents ethnohistoriques. Cet article examine les données ostéologiques et archéologiques relatives aux enterrements à l'intérieur des maisons longues du site Draper (AlGt-2) à la fin du XVe siècle mais dans le contexte du portrait ethnohistorique du début du XVIIe siècle. Particulièrement, la proportion élevée d'enfants enterrés au site Draper, et dans des maisons longues de d'autres villages iroquoiens, est examinée en se servant des écrits des missionnaires et des commerçants en fourrures de l'ère historique. Malgré le fait que certains archéologues aient exprimé leur inquiétude face à l'utilisation de témoignages enthnohistoriques biaisés et face à l'utilité de l'approche historique directe d'analogie, il est tout de même soutenu que la conception d'analogies par l'entremise de documents enthnohistoriques ouvre la porte aux aspects culturels de la mort et de l'enterrement iroquoiens, qui semblent obscures par explications purement fonctionnelles. Ces derniers incluent l'importance de l'idéologie et du cérémonialisme et la façon dont la mort et l'enterrement sont traités dans les communautés iroquoiennes.

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