

The Archaeology of the Dunsmore Site: 15th-Century Community Transformations in Southern Ontario

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ABSTRACT. Located in southern Simcoe County, Ontario, the Dunsmore site is a two-hectare, mid- to late 15th-century Iroquoian settlement that had a complex history—one that may have included both seasonal tenancies and year-round occupations. The settlement appears to have served as both a seasonal fishing camp and a semi-permanent agricultural village, perhaps involving members of several different communities. Through a review of the settlement pattern, artefacts, and subsistence data recovered from Dunsmore, an attempt is made to explore the role of such sites in the general trend towards community amalgamation, which is one of the hallmarks of 15th-century Iroquoian socio-political organization.

RÉSUMÉ. Situé dans la région sud du Comté Simcoe, le site Dunsmore, qui s'étend sur deux hectares, est daté du milieu à la fin du quinzième siècle. Cet établissement Iroquoien a un passé complexe; un passé incluant possiblement des locations saisonnières, ainsi que des occupations à l'année longue. Le site semble avoir servi comme camp de pêche saisonnier, ainsi que de village agricole semi-permanent, impliquant probablement des membres de différentes communautés. En examinant le schéma d'établissement, ainsi que les données de subsistance et d'objets façonnés retrouvés au site Dunsmore, on tente d'explorer le rôle de tels sites dans la tendance générale vers la fusion communautaire, une des marques de l'organisation socio-politique Iroquoise du XVI^e siècle.

THE IROQUOIAN OCCUPATION OF SIMCOE County is one that has attracted considerable interest among archaeologists over the past century. The southern portion of the county, in the vicinity of the City of Barrie, remains one of the more important areas of research. It appears to have been the core area of settlement on the part of late 13th-century horticulturalists moving into the region that would ultimately be known as Huronia. Until comparatively recently, however, the majority of investigations on sites in southern Simcoe County have been restricted to surface survey or small-scale test excavations (e.g., Hunter 1907; Hunter 1976, 1978; Ridley 1958, 1968; Warrick 1988; Warrick and Molnar 1986).

Since the 1980s, large-scale excavations of major Iroquoian settlements in advance of land development in the Barrie area have become increasingly common, and have resulted in the accumulation of extensive settlement pattern data, as well as more sizeable artifact assemblages that represent the full diversity of contexts within the individual settlements. Ontario Ministry of Transportation staff carried out the first of these major investigations at the Wiacek (BcGw-26) and Molson (BcGw-27) sites (Lennox 2000; Lennox *et al.* 1986). The work at the

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Wiacek site (Lennox *et al.* 1986), in particular, marked a watershed development in the Iroquoian archaeology of southern Simcoe County, both in terms of its scope and the detail of analysis. In the late 1980s and through the 1990s, the frequency of large-scale salvage excavations carried out by CRM firms on major settlement sites in the region accelerated, resulting in the completion of additional work at Wiacek (Robertson *et al.* 1995) and the recovery of large artifact assemblages and extensive settlement patterns for sites such as Carson (BcGw-9), Dunsmore (BcGw-10), Holly (BcGw-58), Hubbert (BbGw-9), and Wellington (BcGw-55) (ARA 1990; MacDonald and Williamson 2001; Williamson *et al.* 1999: 57–60). This CRM work, in addition to several research projects, such as Richard Sutton's exploration of the Barrie site (BcGw-18) and his examination of Middle Iroquoian migration to Simcoe County (Sutton 1995, 1996a, 1996b; 1999; *cf.* Warrick 1990), and examinations of material culture (e.g., Varley 1993) and patterns of faunal exploitation (e.g., Needs-Howarth 1999; Needs-Howarth and Thomas 1998), is beginning to have considerable impacts on our current understanding of the Late Woodland occupation of the region.

A significant outcome of this increased scale of research, and one that is also seen in other areas of Iroquoian archaeology in southern Ontario, is the growing recognition that 13th- to 15th-century sites excavated in the past 20 years exhibit such variability in their settlement patterns and material culture systems that many conventional understandings and assumptions regarding community organization and development during this period must be re-assessed. Indeed, this need for re-evaluation has proven necessary for the entire span of the Late

Woodland. In general terms, the transition from the Early to Middle Iroquoian period included a number of major shifts in the overall character of settlements. Such developments as the appearance of discrete groups of aligned structures, a substantial increase in house length, higher densities of interior house features and posts, and the increasingly standardized patterns of their distribution are assumed to represent the development of villages that were intensively occupied throughout the year, rather than more sporadically used over a longer period of time (Dodd *et al.* 1990: 343, 349, 350–351, 357). It is thought that these changes are linked closely to internal population growth and/or the amalgamation of communities into larger units, necessitating significant social and political developments, such as increasingly formalized community planning. This consolidation becomes most evident in the archaeological record of south-central Ontario, beginning in the mid- to late 15th century with the appearance of well-planned and heavily defended Late Iroquoian villages in excess of three hectares in size, which represent not only the results of population growth, but also the amalgamation of neighbouring communities that may have previously participated in more loosely-formed trade or military alliances (e.g., Finlayson 1985: 437–440; Ramsden 1990a: 382; Williamson *et al.* 1998: 13). As site excavations proceed on an ever more rapid scale, however, it has become increasingly apparent that different communities underwent such transitions in different ways and at different times, depending on where they lived and on the structure of the social and economic networks in which they participated.

If we are to come to grips with the cultural diversity found within this broad cultural-historic scheme, we

must re-examine some of our beliefs about the sites we study and about what they can reveal. Foremost among the assumptions that must be reconsidered is the idea of the "village," particularly for the period preceding the emergence of large cosmopolitan sites in the mid- to late 15th century. Settlements identified as "villages" form the basic building blocks of the study of Iroquoian settlement-subsistence systems as they are the most highly visible type of site in the archaeological record. As these settlements likely represented the most complex socio-political units in Late Woodland society prior to the second half of the 15th century (Williamson and Robertson 1994), and as they were relocated on a regular basis as local resources became depleted, they are generally seen to provide the footprints of individual communities moving through space and time. Within the resulting construction of village relocation sequences, the "village" is typically characterized as being comprised of numerous longhouses laid out in an organized manner within a primary compound surrounded by a palisade. It is further assumed that at least some members of the community would remain resident at such sites throughout the year, while others dispersed to a variety of seasonal hamlets, cabins, and camps to pursue horticultural, hunting, and fishing activities during the spring, summer, and autumn. It is rarely possible, however, to thoroughly investigate each site within these postulated local sequences. Nevertheless, as more of these settlements have been subject to large-scale investigation, it has become apparent that the category of the "village" is one that subsumes a diverse range of settlement forms, functions, and histories.

The fact that few of the settlement plans documented by large-scale excavations and subsequently plotted on two-

dimensional settlement pattern maps are likely to represent a snapshot of a single moment in time has been long recognized in southern Ontario. Based on the complex patterns of overlapping houses and palisades found on Early and early Middle Iroquoian settlements and detailed intra-site analyses of their large constituent artifact assemblages, many of these sites appear to represent comparatively short-term—but nevertheless highly structured—occupations spanning many years (e.g., Timmins 1997; Williamson and Ramsden 1998). Similar patterns of overlapping structures on large Late Iroquoian sites on the north shore of Lake Ontario are likewise thought to indicate that such sites developed only gradually from comparatively small settlements, and that the character of the occupation also changed through time (e.g., Damkjar 1990; Finlayson 1985). In such instances, it is clear that the settlement pattern maps produced for these sites are akin to palimpsests. Like manuscripts that have been written upon, partially erased, and overwritten, the patterns of post moulds and features that these maps depict are the accumulated result of a sequence of initial settlement construction, as well as subsequent reconstruction and modification.

On large settlements that do not reveal such obvious evidence for occupational change through time, we should not presume that these are any more likely to be snapshots or that no "rewriting" occurred. Rather, we should approach these sites with the understanding that they, too, were likely to be complex and dynamic communities. We should be prepared for the fact that these "villages" may have been occupied at different times by different community members and for different purposes. They may not always have been villages

as we understand the term within the prevailing typology of “camp,” “hamlet,” and “village” that is derived from early ethnohistoric accounts (e.g., Lennox and Fitzgerald 1990: 438), but which clearly cannot do justice to the morphological variability of Late Woodland settlement systems and the changes they underwent through time and space (*cf.*, MacDonald 2002). The implications of the growing recognition of the complexity and variability of Iroquoian settlements in terms of their individual structure and histories are clear. The traditional construction of cultural-historical schemes using postulated village relocation sequences that rely on superficial characterizations of sites known only through surface survey or limited test excavation is of limited utility in charting the development of local or regional Iroquoian communities. It can no longer be assumed that those traits that traditionally have been used to define the “typical” Iroquoian village of the 15th century (e.g., the appearance of discrete groups of aligned longhouses, substantial increases in house length and in the degree of the standardization of internal house layout [*e.g.*, Dodd *et al.* 1990: 343, 350; Warrick 1984: 8]) will always be found where they might be expected.

The settlement patterns encountered at the Late Iroquoian Dunsmore site (BcGw-10), in the City of Barrie (Figure 1), provide one opportunity to examine questions of complexity and change in the occupation of a large site that, from a cursory glance at the settlement plan, might seem to be a fairly straightforward snapshot of a community over a brief span of time. The distribution of structure types within the occupation area, and their overall heterogeneity in form does not entirely conform to the pattern expected for a later 15th-cen-

tury Iroquoian “village,” although they do appear to be consistent with those encountered at a number of other sites in the immediate vicinity. The houses are widely dispersed throughout the occupation area, forming broad open spaces, some of which appear to have been utilized for a variety of outdoor activities, while others have no obvious clues as to their use.

The Dunsmore structures also display considerable variability with respect to their form and size. Some conform closely to the archetypal Iroquoian longhouse found on sites throughout southern Ontario by the second half of the 13th-century, while others exhibit characteristics that are less frequently encountered. “Classic” longhouses and small, less standardized structures are distributed throughout the various parts of the settlement. While none of the latter are so unusual as to be without parallel, for many Iroquoian settlements contain a few small “cabins” or other “special purpose” buildings, what is striking is that these “less typical” structures form the *majority* of houses encountered at Dunsmore. Presumably, such diversity of architectural styles reflects different intentions or needs on the part of the builders.

In the absence of significant structural overlapping, an enclosing palisade or series of palisades that reflect changes in the size of the settlement at any one time, or a sufficiently large artifact assemblage that permits extensive intra-site analysis, the Dunsmore site also presents a number of interpretive challenges. Foremost among these challenges is to incorporate new data within an understanding of Iroquoian culture-history that accounts for the complexity and variability seen among the Late Woodland communities of southern Ontario, and recognizes the

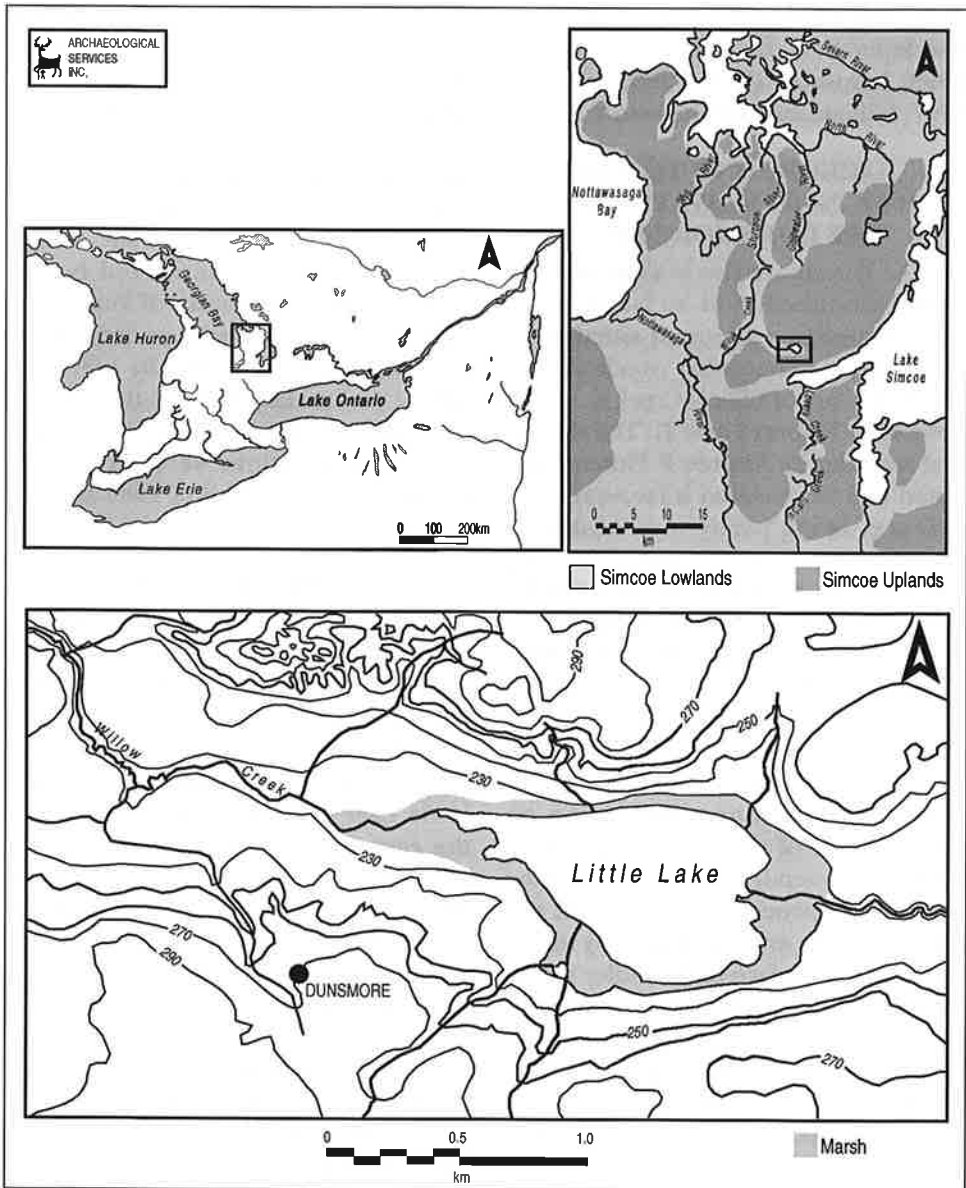


FIGURE 1. Location of the Dunsmore site (BcGw-10), Vespra Township, Simcoe County.

deep historical roots and multi-linear development of this diversity (e.g., Ferris 1999; Jamieson 1992, 1999; Timmins 1997; Williamson and Robertson 1994).

BACKGROUND TO THE 1989–1990 EXCAVATION OF THE DUNSMORE SITE

The Dunsmore site is a two-hectare, plough-disturbed, mid- to late 15th-century Iroquoian settlement situated on a broad flat promontory overlooking a small tributary of Willow Creek in Vespra Township (Figures 1 and 2). The site was first recorded by Andrew F. Hunter, who noted that "its position is favourable for defence, being partly surrounded by ravines. There was a supply of spring water near it. An indian skeleton was discovered in 1900. The indications point it out as belonging to the early Huron class" (Hunter 1907: 54).

In 1968, Frank Ridley visited the site and excavated a small portion of a midden located on the edge of the slope running along the ravine on the west side of the settlement. Ridley (1968: 155) reported that this was the only visibly productive area, with the remaining site area yielding only minor quantities of surface finds. Ridley's work in the midden resulted in the collection of a small artifact assemblage, his analysis of which led him to conclude that the site represented a transitional stage between the "Middleport and Lalonde cultural periods" (Ridley 1968: 155).

Nine years later, James Hunter investigated the site as part of his assessment of the archaeological resources of the Barrie area (Hunter 1978). On the basis of surface survey, Hunter estimated that the site encompassed an area of 2.0 to 2.5 ha. The excavation of a single test unit in a midden situated on the ravine edge approximately 30 m to the northwest of

the 1989–1990 excavation area resulted in the recovery of over 800 artifacts, almost 1,800 specimens of carbonized plant material, and 6,300 pieces of bone (predominantly fish). On the basis of this material, Hunter suggested that the site was occupied circa AD 1400–1550.

Archaeological Services Inc., (ASI) was subsequently contracted by the Rose Group Corporation of Don Mills, Ontario, to conduct salvage excavations on a large part of the site in 1989. Following preliminary investigations in the form of two separate surface collections, full-scale excavations were carried out in the summer and fall of 1989 and the spring of 1990.

PHYSICAL SETTING

Lying at an elevation of 269 m a.s.l., the Dunsmore site is located approximately 4.5 km northwest of Kempenfelt Bay on the northern flank of the spur of the Simcoe Upland that extends from Little Lake to the Minesing Swamp. Little Lake is approximately 2.5 km to the east. North of the site, the broad valley of Willow Creek, a tributary of the Nottawasaga River, drains the Little Lake basin. A tributary of Willow Creek flows north-northwesterly off the upland through a ravine immediately to the west of the site.

The Quaternary deposits of the uplands are dominated by glaciofluvial outwash sand overlying sandy Newmarket Till. Within a one-kilometer radius of the site, the majority of the surficial soils that have developed on this parent material are rated as having moderately severe to severe limitations for modern agriculture, with poor moisture retention, low fertility, and severe topography imposing the main constraints (CLI 1967; Hoffman *et al.* 1962; R. MacDonald 1996: 13). Generally, however, these upland margin soils

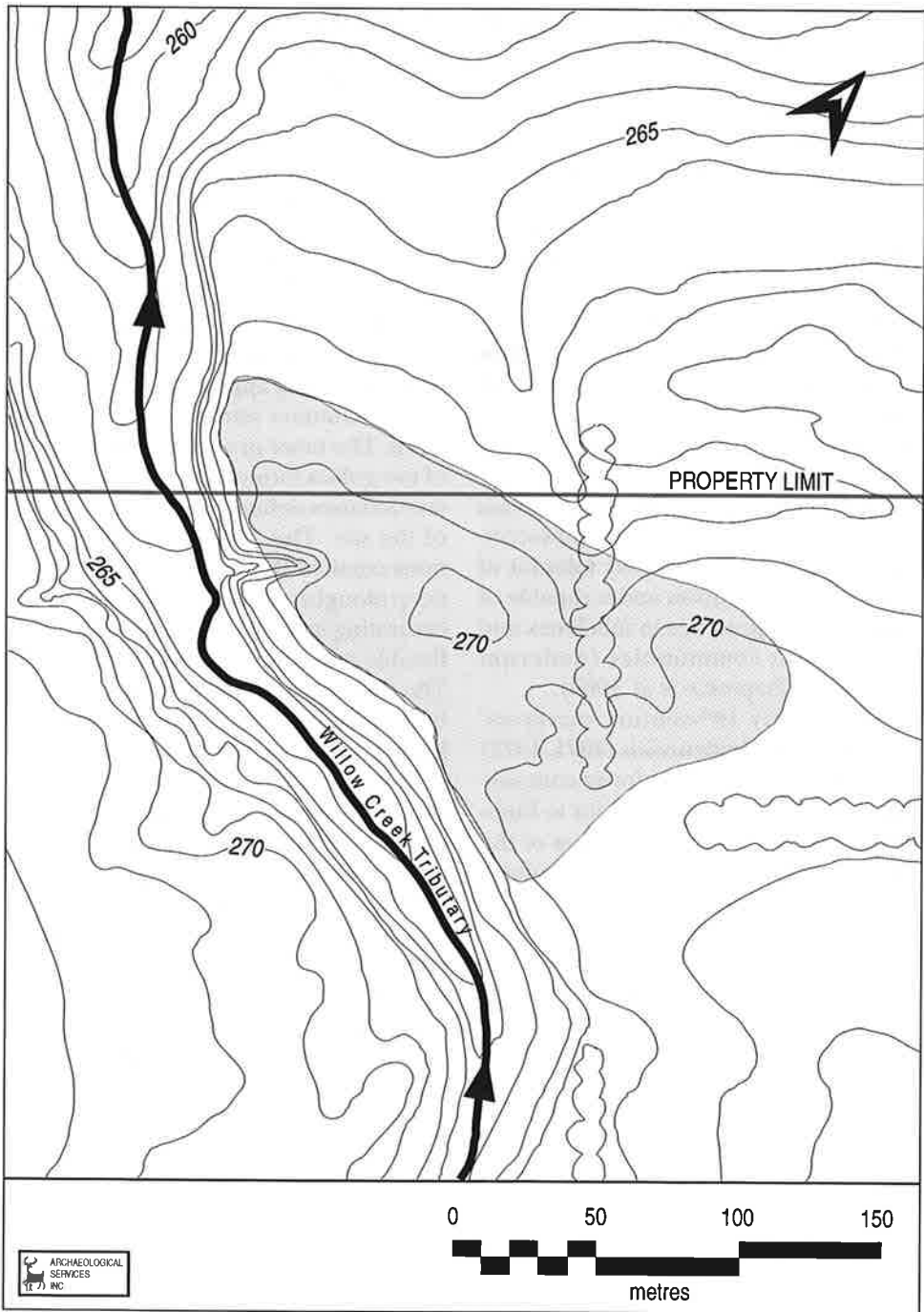


FIGURE 2. The topographic setting and spatial extent of the Dunsmore site.

would have been adequate for Iroquoian maize horticulture (Warrick 1988: 3; Warrick and Molnar 1986: 21–22).

Under median moisture regimes and eco-climates, the climax forest in this region tends to be dominated by hard maple (*Acer saccharum*) and beech (*Fagus grandifolia*), often in association with red oak (*Quercus rubra*) and hemlock (*Tsuga canadensis*). Red maple (*Acer rubrum*), white oak (*Quercus alba*), white ash (*Fraxinus americana*), yellow birch (*Betula lutea*), balsam fir (*Abies balsamea*), white cedar (*Thuja occidentalis*), and American elm (*Ulmus americana*) are other species of intermediate importance in the climax forest. White pine (*Pinus strobus*), although classed as a mid-successional species, is moderately tolerant of shade and competition and is capable of maintaining a presence in subclimax and climax forest communities (Anderson *et al.* 1990; Chapeskie *et al.* 1989).

Using early 19th-century surveyors' notes, Conrad Heidenreich (1971, 1973) attempted to reconstruct forest composition within Simcoe County prior to European clearance. Since large areas of the region had been cleared for agriculture by the Huron as late as the mid-17th century, these early 19th-century forests were thought to represent mid- to late successional closed-canopy communities. This assumption is further borne out by a strong correlation between the distribution of soils and forest types in Heidenreich's reconstruction. Three principal vegetation communities appear to have been dominant in the vicinity of Dunsmore. At the site itself and the adjacent upland plateau, a maple-beech-basswood association is indicated, together with secondary inclusions of white pine, oak, and hemlock. These latter taxa, which are best able to compete with maple and beech on dry sites, attest to the porosity

of the upland soils. To the northwest of the site was an extensive pine barren that developed on droughty soils. Northeast of the site, the wet lowlands of the Little Lake basin and Willow Creek valley were occupied by swamp dominated by eastern white cedar (R. MacDonald 1996: 14).

INTRASITE SETTLEMENT PATTERNS

Situated on a well-defined promontory, the settlement was bounded by steep slopes dropping approximately 5 m down to the tributary and its associated wetlands. The more gradually sloping banks of two gullies formed by relict or seasonal watercourses defined the northern extent of the site. The 1989–1990 ASI excavations entailed the removal of the 30-cm-deep ploughzone using a Gradall, a large excavating machine equipped with a fully flexible arm and smooth-edged bucket. The fact that the ploughzone overlying house interiors was not sampled through hand excavation undoubtedly resulted in loss of data that would otherwise have been of benefit during the analytic and interpretive stages of the project—such are the constraints of large Iroquoian site mitigation projects in the current context of Ontario cultural resource management. The subsurface settlement features and post moulds exposed through ploughzone stripping were defined more precisely by shovel and by trowel, and were then mapped. As hand excavation and screening of the feature fills through 6-mm-mesh proceeded, the feature attributes were recorded. An area of approximately 14,500 m² was investigated in this manner, resulting in the documentation of 16 structures, several alignments of posts that likely served as fences or windbreaks, and a total of 447 subsurface features. Three middens identified during the excavations were inves-

tigated through the hand excavation of 1 m² units. No traces of a palisade were encountered. Approximately one-fifth of the site area lay beyond the northern boundary of the proposed development area (Robertson and Ramsden 1996: 8). This portion of the site remains unexcavated.

Brief descriptions are provided for each of the houses encountered at the Dunsmore site. The definitions for structural characteristics such as "central corridors" or "taper ends" were adapted from Dodd (1984: 238–249). Tables 1–3 provide selected summary statistics for each structure. Given the range of structure types encountered and the corresponding efforts to interpret them, it is necessary to preface these descriptions with discussion of some of the assumptions that underlie

the settlement patterns analysis in terms of feature and structure typology.

The Feature Typology

Features were classed into four basic groups: (1) general pits; (2) ash pits; (3) hearths; and (4) semi-subterranean structures. Each is briefly defined and described here.

General Pits

This category includes those features of undifferentiated character and function. Not surprisingly, this feature category subsumes a wide range of forms ranging from those comparatively small pits exhibiting regular (circular to ovate) plans and comparatively shallow profiles to larger, more amorphous features that possess irregular plans and/or profiles. The majority of the former were likely

TABLE 1. Dunsmore site longhouse metrics.

| House | Length (m) | Width (m) | Interior Area (m ²) | Orientation (°E of N) |
|--------------|-------------|-----------|---------------------------------|-----------------------|
| 1 | 36.5 (24.4) | 7.5 | 240 | 59 |
| 2 | 13.5 | 5.5 | 70 | 34 |
| 3 | 41.0 | 6.5 | 220 | 95 |
| 4 | 11.5 | 6.0 | 60 | 73 |
| 5 | 7.0 | 5.8 | 39 | 44 |
| 6 | 10.0* | 13.0 | 150* | 8 |
| 7 | 54.0 | 7.8 | 438 | 355 |
| 8 | 24.5 | 6.5 | 153 | 34 |
| 9 | 37.0 | 7.0 | 275 | 27 |
| 10 | 24.0* | 7.0 | 150* | 290 |
| 11 | 27.0* | 7.3 | 200* | 297 |
| 12 (Phase 1) | 16.0 | 6.0 | 70 | 33 |
| 12 (Phase 2) | 18.0 | 6.0 | 75 | 33 |
| 13 | 11.5 | 6.0 | 63 | 296 |
| 14 | 12.0* | 5.0 | 48* | 34 |
| 15 | 14.0* | 5.0 | 112* | 90 |
| 16 | 8.5 | 5.5 | 38 | 312 |

* minimum dimensions

TABLE 2. Summary statistics for the Dunsmore site longhouses.

| House | WALL POSTS | | | | | INTERIOR POSTS | | | |
|-------|------------|----------------------|--------------------|---------------|----------|----------------|--------------------|---------------|----------|
| | n | Density (posts/m) | Mean Diam. (cm) | Range (cm) | δ | n | Mean Diam. (cm) | Range (cm) | δ |
| 1 | 448 | 5.4 | 7.0 | 3-29 | 2.5 | 656 | 8.9 | 2-44 | 5.4 |
| 2 | 64 | 1.4 | 9.1 | 5-16 | 2.6 | 31 | 9.8 | 6-20 | 3.0 |
| 3 | 125 | 1.7 | 7.6 | 3-26 | 3.0 | 51 | 8.5 | 4-24 | 4.3 |
| 4 | 175 | 5.7 | 6.9 | 3-28 | 2.2 | 80 | 8.4 | 4-23 | 3.8 |
| 5 | 56 | 2.6 | 6.4 | 3-10 | 1.5 | 29 | 7.0 | 3-19 | 3.7 |
| 6 | 130 | 5.5 | 7.0 | 4-12 | 1.4 | 34 | 7.7 | 4-15 | 2.7 |
| 7 | 849 | 7.3 | 7.0 | 3-32 | 2.1 | 2,744 | 7.3 | 3-36 | 4.1 |
| 8 | 282 | 5.6 | 6.7 | 4-12 | 1.4 | 562 | 8.5 | 4-34 | 4.5 |
| 9 | 558 | 7.2 | 7.2 | 3-16 | 2.0 | 1,212 | 7.0 | 2-33 | 4.1 |
| 10 | 382 | 7.3 | 6.3 | 3-18 | 1.6 | 1,330 | 6.7 | 2-30 | 3.5 |
| 11 | 267 | 6.4 | 7.1 | 4-14 | 1.5 | 173 | 8.2 | 2-37 | 5.2 |
| 12 | 266* | 3.8 | 5.9 | 4-13 | 1.6 | 158* | 8.6 | 4-29 | 5.3 |
| 13 | 176 | 5.9 | 7.0 | 4-25 | 2.0 | 125 | 9.7 | 4-32 | 6.3 |
| 14 | 94 | 3.8 | 6.8 | 4-15 | 1.6 | 53 | 7.1 | 4-40 | 5.4 |
| 15 | 219 | 6.3 | 7.0 | 4-20 | 2.4 | 383 | 7.7 | 4-30 | 4.3 |
| 16 | 111 | 4.9 | 6.8 | 4-11 | 1.4 | 105 | 7.5 | 4-22 | 2.8 |

* approximate tally

utilized as small storage facilities for only brief periods of time and, in most cases, appear to have been filled relatively rapidly once they went out of use, based on the general absence of complex stratigraphic profiles. In most cases the contents of these features are primarily limited to small quantities of secondary refuse, although in the occasional instances where such pits yield large quantities of refuse, it is possible that they represent ad hoc disposal of garbage during the winter in order to avoid a trip outside to the midden. Higher quantities of plant and animal remains in pits may also reflect seasonal differences. Many pits that are more irregular in plan and profile likely represent the basal remnants of natural depressions. Such naturally occurring depressions, caused by tree falls or rock pulls, for example,

may have been intentionally used as places to discard refuse, although it is also possible that considerable quantities of debris could accumulate in such areas incidentally. Nevertheless, there is no reason to assume that activities were not intentionally carried out in the vicinity of a refuse area where the disposal of debris would be easily facilitated, and where there was access to a wealth of raw material such as bone.

Ash Pits

Ash pits are similar to undifferentiated pits in terms of size and form, but are distinguished on the basis of higher concentrations of ash, charcoal, and occasionally fired soil in their fills. It is typically assumed that these features may represent temporary disposal of material cleaned from hearths.

TABLE 3. Dunsmore site feature distribution.

| | Pits | Ash Pits | Hearths | Semi- Subterranean Structures | Other | Total | Feature Density (per m ²)* |
|------------------|------|-------------|---------|-------------------------------------|-------|-------|--|
| House 1 | 62 | 17 | 2 | 6 | 2 | 89 | 0.506 |
| House 2 | 2 | 2 | 0 | 0 | 0 | 4 | 0.060 |
| House 3 | 7 | 4 | 0 | 0 | 0 | 11 | 0.050 |
| House 4 | 15 | 2 | 1 | 0 | 0 | 18 | 0.400 |
| House 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| "House 6" | 3 | 0 | 0 | 0 | 0 | 3 | n/a |
| House 7 | 87 | 23 | 7 | 4 | 1 | 122 | 0.308 |
| House 8 | 9 | 1 | 0 | 3 | 0 | 13 | 0.085 |
| House 9 | 23 | 0 | 2 | 1 | 1 | 27 | 0.127 |
| House 10 | 25 | 0 | 4 | 2 | 0 | 31 | 0.244 |
| House 11 | 12 | 1 | 0 | 2 | 0 | 15 | 0.125 |
| House 12 | 4 | 0 | 0 | 2 | 0 | 6 | 0.083 |
| House 13 | 2 | 1 | 1 | 1 | 0 | 5 | 0.079 |
| House 14 | 3 | 1 | 0 | 1 | 0 | 5 | 0.104 |
| House 15 | 21 | 1 | 1 | 1 | 0 | 24 | 0.250 |
| House 16 | 4 | 0 | 1 | 0 | 0 | 5 | 0.132 |
| Exterior Areas | 71 | 5 | 0 | 0 | 2 | 78 | — |
| TOTAL (Interior) | 279 | 54 | 19 | 23 | 3 | 378 | — |
| TOTAL (Exterior) | 71 | 5 | 0 | 0 | 2 | 78 | — |
| TOTAL | 350 | 59 | 19 | 23 | 5 | 456 | — |

* excluding floor space occupied by well-defined storage cubicles, vestibules, and disturbances.

Hearths

Hearths are identified primarily on the basis of their shallow profiles, the predominance of fire-reddened soil in their fill, and the general dearth of artifactual contents within them. These attributes are a consequence of the fact that rather than being formed through excavation into the subsoil, hearth features result from the intense heat of a fire burning off the organic components of the underlying soil and oxidizing the remaining minerals. As the predominant mineral content in southern Ontario subsoils is iron, the result is a reddish-coloured iron oxide stain. The size of the staining

is assumed to reflect the scale of burning or longevity of the hearth, leading to a frequent distinction between heating or combination heating/cooking hearths, which are found along the centre line of the house, and smaller cooking hearths, which may be more variably situated. Since hearths tend to be shallow features, their survival on plough-disturbed sites is often limited; dense clusters of small ashy post moulds may demarcate former hearth locations.

Semi-Subterranean Structures

The final class of feature type consists of semi-subterranean structures,

which are large rectangular pits with a lobed projection that together form a key hole-shaped plan. The lobed extension normally comprises a ramped entrance leading down to the main body of the feature, the floor of which typically consists of a veneer of highly organic soil mixed with ash, charcoal, and fired soil. Fire-cracked rock is often found in abundance at the floor level and in the upper fill layers, although the latter are not necessarily associated directly with the use of the structure. Post moulds are found around the edge of the feature at or beneath the floor level. These posts likely represent the vertical elements of the frame of a superstructure covered by bark, skins, earth, or a combination of these materials (Dodd and Riddell 1995: 149; MacDonald 1988: Fig. 2, 1992: 329). When the structures fell out of use, they were frequently used as convenient receptacles for refuse disposal. Sometimes this material was deposited rapidly, and in large quantities, in a deliberate effort to back fill the pit, while in others it accumulated more gradually as the feature was gradually filled in. In either case, these features often contain the majority of artifacts recovered from interior house features, simply by virtue of the massive quantities of fill they have relative to other pits.

The most convincing explanation offered as to the function of semi-subterranean structures—in that it is the only carefully considered exploration of either structural analogues or northeastern North American Aboriginal cultural practice—is that they were communal sweat lodges used for ritual, curative, or socio-political purposes (MacDonald 1988: 17–18, 1992: 329; MacDonald and Williamson 2001: 66–68; Smith 1976), although uses for other purposes requiring solitude or segregation cannot be

ruled out. The frequency with which these structures occur within longhouses on Ontario Iroquoian settlements after circa AD 1200 suggests that their role may have been a fundamental aspect of daily life in an Iroquoian household, especially if their use related to a curing society that functioned as a socially unifying institution within the emergent tribal systems of the Middle and early Late Iroquoian periods (Kapches 1995: 90; MacDonald 1992; MacDonald and Williamson 2001: 66–68; Ramsden *et al.* 1998; Robertson and Williamson 1998: 147). The use of these communal structures appears to have declined among Ontario Iroquoians through the later 15th and 16th centuries (Ferris and Spence 1995: 113; MacDonald and Williamson 2001: 71–72).

These large communal features were complemented by smaller sweat baths defined by annular formations of posts that do not appear to have been directly associated with hearths (Finlayson 1985: 409–410; MacDonald 1988: 19; Tyyska 1972). Distinguishing sweat baths from other domestic fixtures that were frequently rebuilt can be problematic, as little patterning can be discerned in the resulting dense clusters of post moulds. Nevertheless, when the distinctive 1.5–2.0-m-wide rings formed by discrete groups of posts are seen, it is probable that many of these features were sweat baths used by individuals in contexts that were perhaps comparable to the “shaking tent” ceremonies of the Algonquian *Jiissakid*. Use of the smaller sweat baths was probably of greater antiquity than the communal rites, and apparently outlived them, for the practice continued into the contact period (see MacDonald [1988] for a summary of ethnographic accounts among the Huron).

All of the features found on a site were created and used within a wider context

of actions that were structured by relationships between individuals and groups. In turn, these relationships were both expressed through and shaped by the residential structures people built, and the way they organized their settlement compound. At this level of interpretation, where attention is shifted to the various houses, a new set assumptions and analytical parameters come into play.

The Structure Typology

Characterization of a particular structure as “seasonal” or “short-term” versus “long-term” or “permanent” is an exercise that is fraught with difficulties, relying as it does on an assessment of the surviving two-dimensional evidence for what were three-dimensional structures. Moreover, the interpretation of any given type of settlement remains must be tempered by the recognition that several different processes may have led to or influenced the patterns encountered upon excavation. Nevertheless, in our interpretations of the Dunsmore settlement patterns we have taken a number of considerations into account when providing suggestions about the functional character of individual structures.

With respect to the exterior walls of the buildings, a major assumption has been that higher densities of side wall posts reflect more robust construction consistent with cold-weather occupation and/or continued maintenance consistent with longer-term use. Likewise, well-defined house ends are assumed to reflect enclosed structures, whereas poorly-defined house ends may represent open-ended shelters that may have been only partially or temporarily screened during inclement weather in the warmer months. This trait, however, should be accompanied by other indicators before inferring a particular function

for an apparently open-ended structure, as it may simply be that the posts used for the end walls were not set as deeply as those of the side walls. In the case of the Dunsmore houses, wall post densities in excess of five posts per meter characterize the more robustly built houses, while densities of less than four posts per meter typify the postulated seasonal shelters.

The layout of features and posts within a given house, and their type and density are also a basis for interpreting the intensity or longevity of occupation, as well as seasonality. Where possible, interior domestic activity areas—whether centred upon hearths or otherwise—were identified on the basis of the clustering of features and posts. In cases where the central corridor of a house presents an essentially continuous array of posts and pits, the identification of discrete activity areas is problematic, although zones characterized by exceptionally dense clusters of intersecting or overlapping features may reflect specific formal activity areas. In other cases, these activity areas may be discerned as discrete areas of feature and post concentration. It is possible that many of these activity areas represent familial “apartments” along each side of the central corridor, possibly separated from one another by partition walls, as described in the ethnohistoric record, although their existence can rarely be confirmed through archaeological evidence.

In buildings that are likely to have been occupied throughout the year, or during the cold weather when individual houses were more crowded, feature and post densities are likely to be higher and the layout of the internal fixtures may be more formalized or orderly. The majority of the interior posts and features, for example, will tend to be confined to the central corridor of the dwelling, a pat-

tern that may be taken to indicate that "bunklines" or raised sleeping platforms (measuring 1.5 to 2 m in width) were built between the main lateral support superstructure and the exterior walls. The frequent presence of large semi-subterranean structures within bunklines suggests, however, that these platforms were not necessarily continuous, or could be modified over time to suit the changing needs of the household.

Houses in which large central hearths or ash pits are particularly numerous, or which are associated with middens containing thick deposits of ash, are assumed to represent cold-weather, if not year-round occupations simply by virtue of the fact that heating needs were greatest during the winter. In temporary shelters occupied by smaller groups, the range of activities and their resulting physical remains is likely to be more restricted, both in quantity and relative density. Likewise, the arrangements of the house interiors may appear more disorderly.

The distribution of features and posts immediately outside of a house may also be used to interpret questions of seasonality (e.g., Ramsden *et al.* 1998: 45–46; Robertson *et al.* 1998: 41). Feature or post clusters situated immediately adjacent to houses likely represent facilities for completing various outdoor tasks. Such arrangements are frequently found on Iroquoian settlements, regardless of size. When well-defined clusters of exterior features and posts occur immediately adjacent to smaller, open-ended structures it is likely that these buildings were occupied during the warmer months when a variety of tasks could be completed out-of-doors. Within wider expanses between houses, the presence of partially sheltered activity areas that were seemingly defined by short alignments of posts representing fences or windbreaks indicate that use of

some of the open spaces within a settlement was complex and rather formally structured (*cf.*, Lennox *et al.* 1986: Fig. 4; Ramsden *et al.* 1998: 46–52; Robertson *et al.* 1995: 51–53). Within these activity areas, post clusters or even isolated posts likely represent the remains drying racks or other slightly built structures.

The Dunsmore Houses

Summaries are provided for each of the 16 structures encountered at the site, generally proceeding from east to west across the settlement. These descriptions are limited to the most salient traits that led to interpretation of their individual character and history.

House 1 (Figures 3 and 4)

House 1 underwent at least one significant structural transformation, involving a contraction of approximately 12 m in its overall length. That this change involved a reduction in length rather than an expansion is suggested by the symmetry of northern and southernmost end walls, which were tapered, with rounded corners and flat ends, whereas the inner south end appears to have been more smoothly rounded.

The majority of the interior posts were confined to the central corridor. It is possible that diffuse alignments of posts along the margins of the central corridor, at least in the northern half of the house, indicate the presence of bunklines measuring approximately 2 m in width. One circular cluster of posts, measuring approximately 1.3 m in diameter and situated towards the east end of the house, may be the remains of a sweat bath.

The most remarkable aspect of House 1 was the presence of six semi-subterranean sweat lodges, and of three other large features, which may represent the more poorly defined remains of such

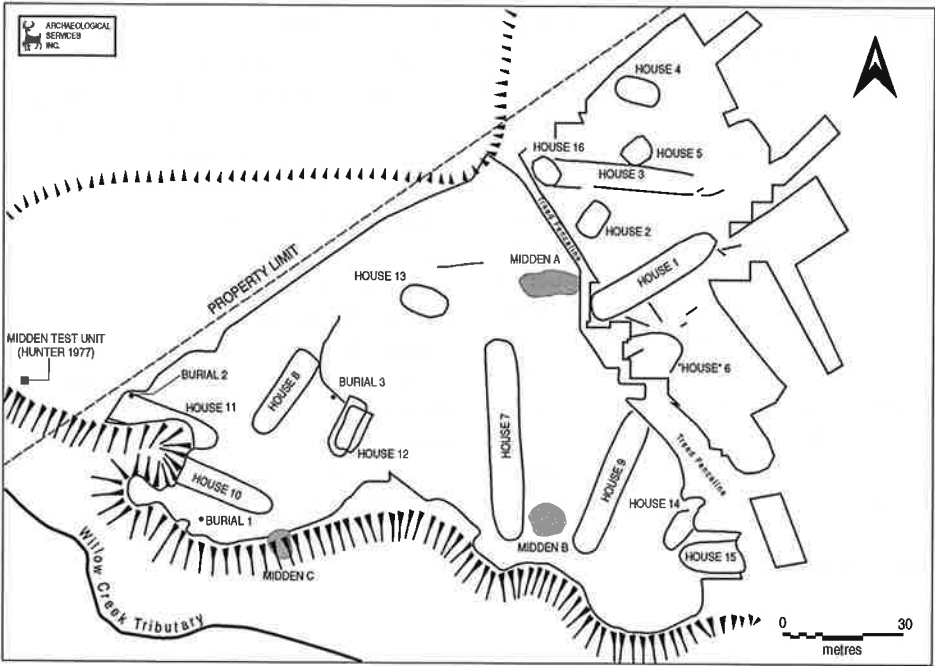


FIGURE 3. The 1989–1990 excavations and community layout.



FIGURE 4. House 1 at the Dunsmore site. Only features mentioned in text are identified.

structures, and the overall symmetry of the layout of these features. Given the important religious and socio-political roles of sweat-bathing, it is possible that the unusual number of sweat lodges may have been related to the apparent changes in the composition of households and communities during the 15th-century (MacDonald and Williamson 2001: 71–72). In general, however, the size of the structure, during either phase, its regular construction and the density of interior features and posts together suggest that House 1 could have provided cold-weather and/or year-round shelter to several families.

House 2 (Figures 3 and 5)

House 2 constituted one of the smaller structures at the site. The building was somewhat asymmetrical in appearance. The south end had square corners and a flat end, while the less well-defined north end appeared to have been somewhat more rounded. The unusual shape of House 2 was accentuated by the fact that the north end of the structure appeared to have been appended by a small sheltered exterior activity area, formed by a diffuse arc of posts extending northward from the northeast corner of the building. The east side wall was formed by a single row of evenly spaced posts, whereas the west wall was less regular in patterning,

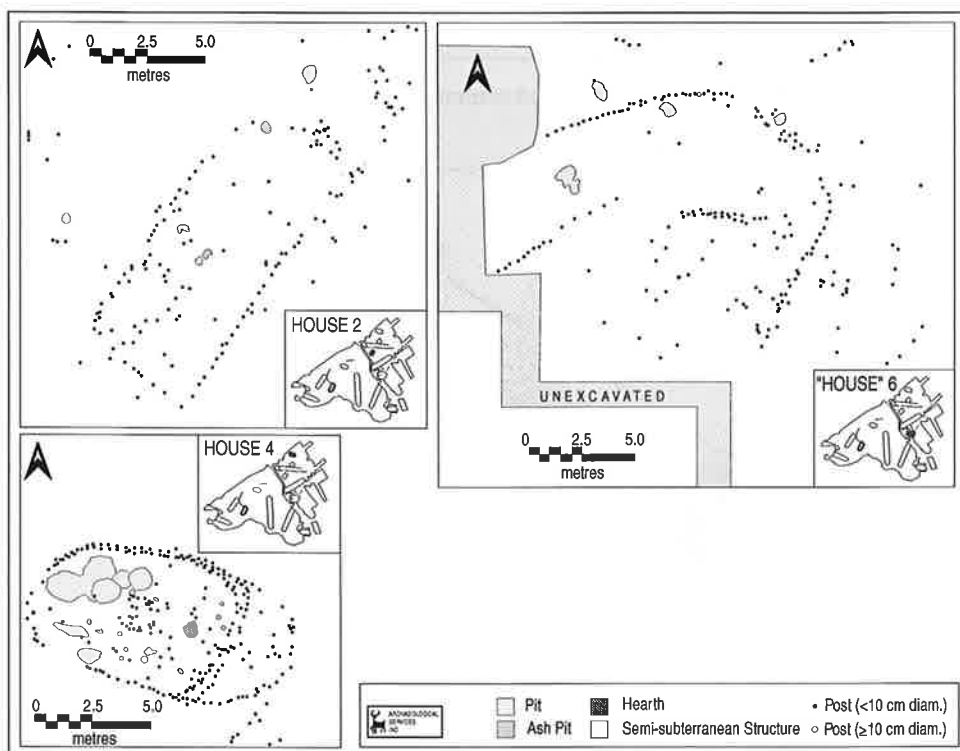


FIGURE 5. Houses 2, and 4, and the exterior activity area originally designated as “House 6” at the Dunsmore site. Only features mentioned in text are identified.

with both staggered and single row sections. Similarly, the south end consisted of a single row of posts, while the north end exhibited a more clustered pattern.

There is no evidence to suggest that House 2 was intensively occupied. Few posts were found within the structure, and most were confined to its south end, perhaps demarcating a small cubicle. Given the unusual shape of this structure, the low density of posts forming the walls, the atypical distribution of interior posts, and the comparative lack of interior features, it is suggested that this structure may not have functioned as a permanent dwelling, but more likely as a temporary shelter.

Houses 3, 16, and 5 (Figures 3 and 6)

The functional character of these structures is unclear, as are their associations with one another. House 3 was the least well defined of the three. The west end of House 3 appeared to terminate with the east end of House 16. Despite its large size, House 3 contained only 11 features, none of which were hearths.

House 16 was oval to rectangular in form, with comparatively straight side walls and more rounded corners and end walls. An approximately 1-m-wide gap in the wall at the southeast corner of the house may represent a doorway. The posts forming the walls of the structure were more densely spaced than was the case for either House 3 or House 5. The occurrence of several post clusters within the walls may indicate episodes of structural repair. Interior activity appears to have been largely confined to the southeastern two-thirds of the structure. The northwest end of the structure appears to have been partitioned.

It remains unclear whether or not Houses 3 and 16 overlapped. It is possible that the two structures were contempor-

porary and shared a common end wall. Alternatively, House 3 may represent a major change in the nature of the occupation of House 16—one that involved the preservation of the older, smaller building within the superstructure of a very much larger structure. A clearer example of such a sequence of house replacement was recently documented at the Grandview site, a large Middle to Late Iroquoian village in Oshawa (Austin 1999: 13–15). In the latter case, a structure measuring 8 m in length and 6 m in width was extended, or incorporated as the end section of a later house measuring approximately 37 m long and 6.8 m wide. A similar example of a major change in house form—and presumably household composition—was recorded at the early Middle Iroquoian Myers Road site, at which two small temporary structures were amalgamated within a large single dwelling (Ramsden *et al.* 1998: 35). With respect to the Dunsmore example, however, the reasons underlying such a change remain obscure, given that the interior of the much larger House 3 does not appear to have been intensively utilized.

The third structure, House 5, was a small building. The corners of the structure were rounded, as were its end walls. No features were present, and only a few, seemingly randomly distributed posts were found in the structure.

As was the case with Houses 3 and 16, the relationship between Houses 3 and 5 remains unclear, but it appears possible that the southeast corner of House 5 actually formed part of the north side wall of House 3, indicating that they may have been at least partly contemporary. This suggestion receives further support from the fact that a short row of posts extended from the south end of House 5 to join the north side wall of House 3.

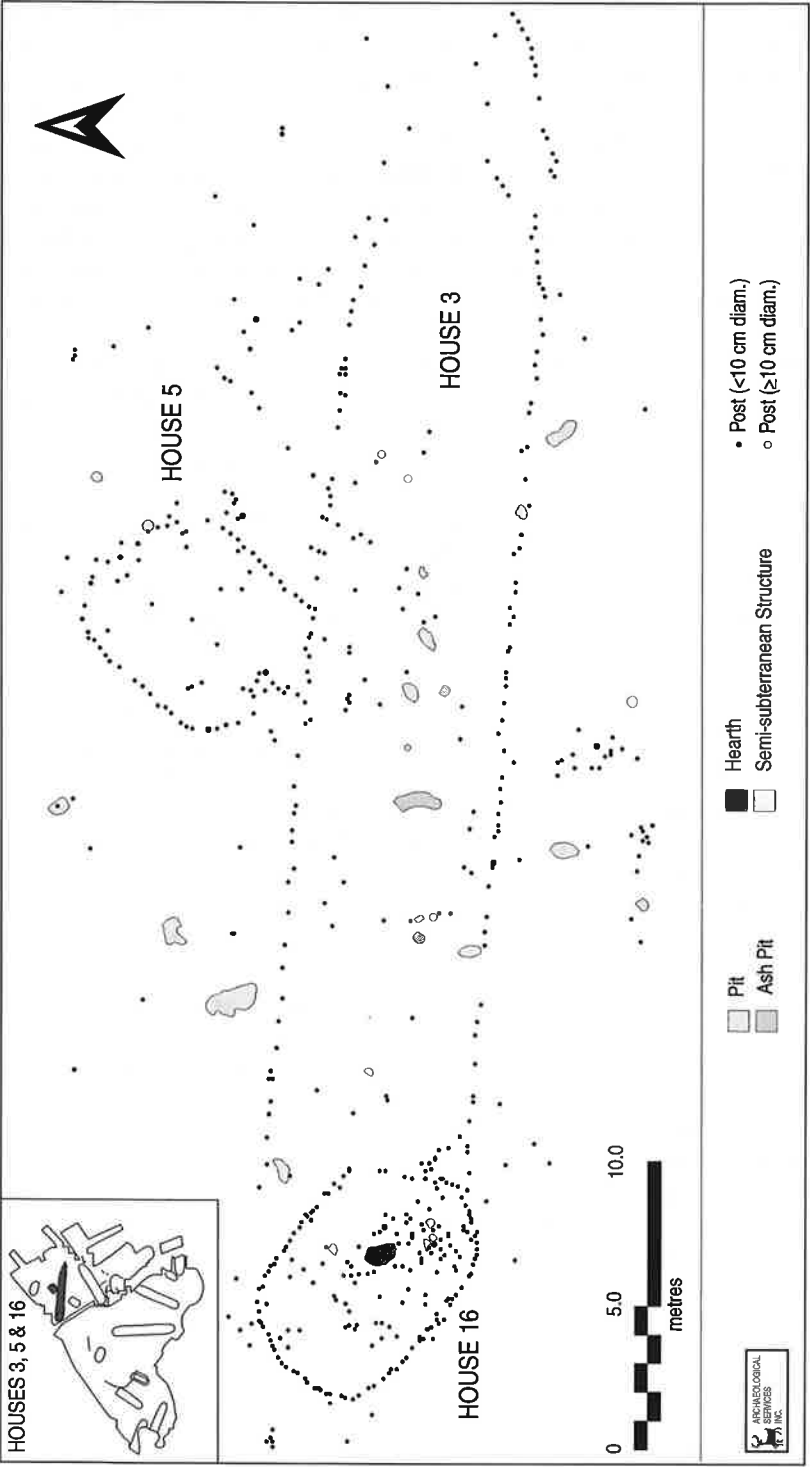


FIGURE 6. Houses 3, 16 and 5 at the Dunsmore site. Only features mentioned in text are identified.

The function(s) of these three unusual structures is unclear, but the slightly built walls of Houses 3 and 5, together with the lack of hearths and other interior features, may indicate that these buildings represent short-term or warm weather occupations. Although it was comparatively small, House 16, on the other hand, exhibited more robustly built walls, contained a hearth and other evidence of greater interior activity, and probably possessed a separate storage area. These traits all suggest that the structure may have served as a dwelling during the winter months and/or on a year-round basis. In light of its size, however, House 16 could only have provided shelter to a small group of people.

House 4 (Figures 3 and 5)

House 4, a small oval-shaped structure, possessed an unusual series of east end walls. These may represent the presence of one or two partition walls, defining a cubicle or porch, or simply repeated rebuilding of the end wall, which on one occasion involved a change in the overall length of the structure, or the addition of a vestibule. The presence of a gap, over 2 m in width, in the west end wall may represent a large entrance in the southwest corner of the house. This potential doorway appears to have had a counterpart in the northeast corner of the structure.

In light of the considerable number of interior posts and features, including a hearth and a complex of five large overlapping pits, the house appears to have been fairly intensively inhabited by a small group of people, possibly serving as a year-round and/or cold-weather residence.

"House 6" (Figures 3 and 5)

The precise function of the structure designated as House 6 remains undetermined, but it may represent a large, partially sheltered activity area similar to those documented at the nearby but somewhat earlier Wiacek site (Lennox *et al.* 1986: Fig. 4; Robertson *et al.* 1995: 51–53). Regardless of the precise form or purpose of House 6, however, its presence, together with that of three short alignments of posts representing fences or windbreaks between it and House 1 to the north, suggests that utilization of this portion of the settlement was complex and rather formally structured.

House 7 (Figures 3 and 7)

House 7 was the largest house on the site. It was oriented roughly north-south through the centre of the settlement area, with its south end lying in close proximity to the edge of the steep slopes overlooking the wetlands below the site.

The house exhibited a "classic" cigar shape in plan, with the side walls tapering to rounded corners and flat, narrow end walls. Both ends appear to have had centrally located doorways. The entrance at the north end was associated with a short double-row fence. The southern doorway is less clearly defined, but seems to have been sheltered by a small vestibule or a series of internal screens. There is also evidence, although less clearly defined, for a small fence at the south end. Such fences may have provided shelter and definition to porch areas associated with each end of the house.

The walls of the house were formed by the use of staggered pairs of posts, although some short sections, particularly

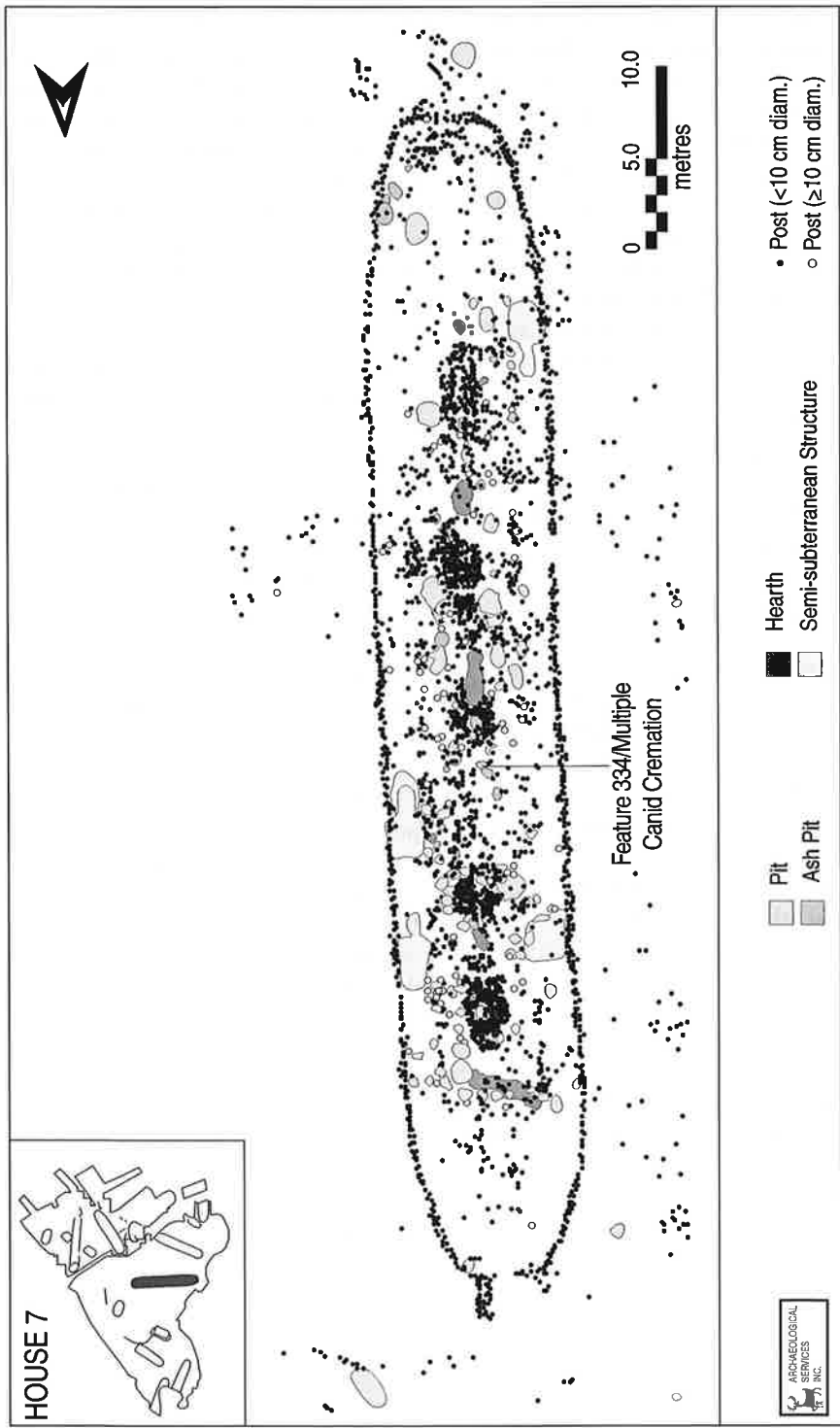


FIGURE 7. House 7 at the Dunsmore site. Only features mentioned in text are identified.

along the east side wall, were formed by only a single row of posts. The latter pattern of post placement, however, is rare and the overall construction seems to have been quite substantial. Some areas of post clustering may indicate episodes of repair or refurbishment.

Four dense annular clusters of posts situated between the hearths in the western two-thirds of the house may represent the remains of sweat bath structures or domestic fixtures. These formations measured between approximately 2.0 and 3.2 m in diameter and the density of the posts suggests that these features were frequently rebuilt.

A domestic dog (*Canis familiaris*) burial (Feature 334), was found at the approximate mid-point of the house (Figure 7). This contained the cremated remains of at least three individuals (Thomas 1996a: 171–179).

Given the robust construction of the structure, the indications of rebuilding or repair to the walls, and the high density of interior features and posts, there can be little doubt that House 7 represents a cold-weather/year-round occupation on the part of a large household group.

House 9 (Figures 3 and 8)

Although the extreme north end of House 9 was not excavated due to the difficulties imposed by the dense roots of the mature trees in the fence-line, it appears to have had uniform ends, with the side walls tapering to rounded corners. Like House 7, House 9 would appear to represent a winter and/or year-round occupation. The only readily apparent entrance to the structure appears to have been associated with a fence that curved sharply around the opening to serve as a portal screen or windbreak. While four major post concentrations distributed along the length of the central corridor

may be attributable to a variety of domestic causes, the fact that all were clearly defined annular formations measuring between approximately 1.5 and 2.5 m in diameter suggests that they may represent the remains of sweat baths.

House 13 (Figures 3 and 9)

House 13 comprised a small structure with rounded corners, a flat west end, and a more rounded east end. A double-ramped sweat lodge was situated in the extreme southwestern corner of the structure. To date, this is one of only a few examples of semi-subterranean sweat lodges with multiple entrances; others having been recorded at the nearby mid- to late 15th-century Hubbert site (MacDonald and Williamson 2001: 39) and at the early to mid-15th-century Norton site in London (Cooper and Robertson 1993: 37–40).

At least one of the larger “interior” features is likely to predate the structure since it was intersected by nine house wall posts and was post-dated by another small pit. In light of the considerable number of exterior posts surrounding House 13, in addition to several features, exterior activity seems to have been comparatively intensive in this area of the site, or else occurred more sporadically over a longer period of time. It is thus possible that House 7 was established prior to House 13, if the majority of exterior activity in this area was associated with the occupation of the former structure. A later date for House 13 may, to some extent, account for its unusual orientation and its relatively isolated location within the settlement.

It is possible that House 13 functioned as a year-round and/or cold-weather dwelling for a small group of people. Nevertheless, the comparative scarcity of typical domestic features such as pits

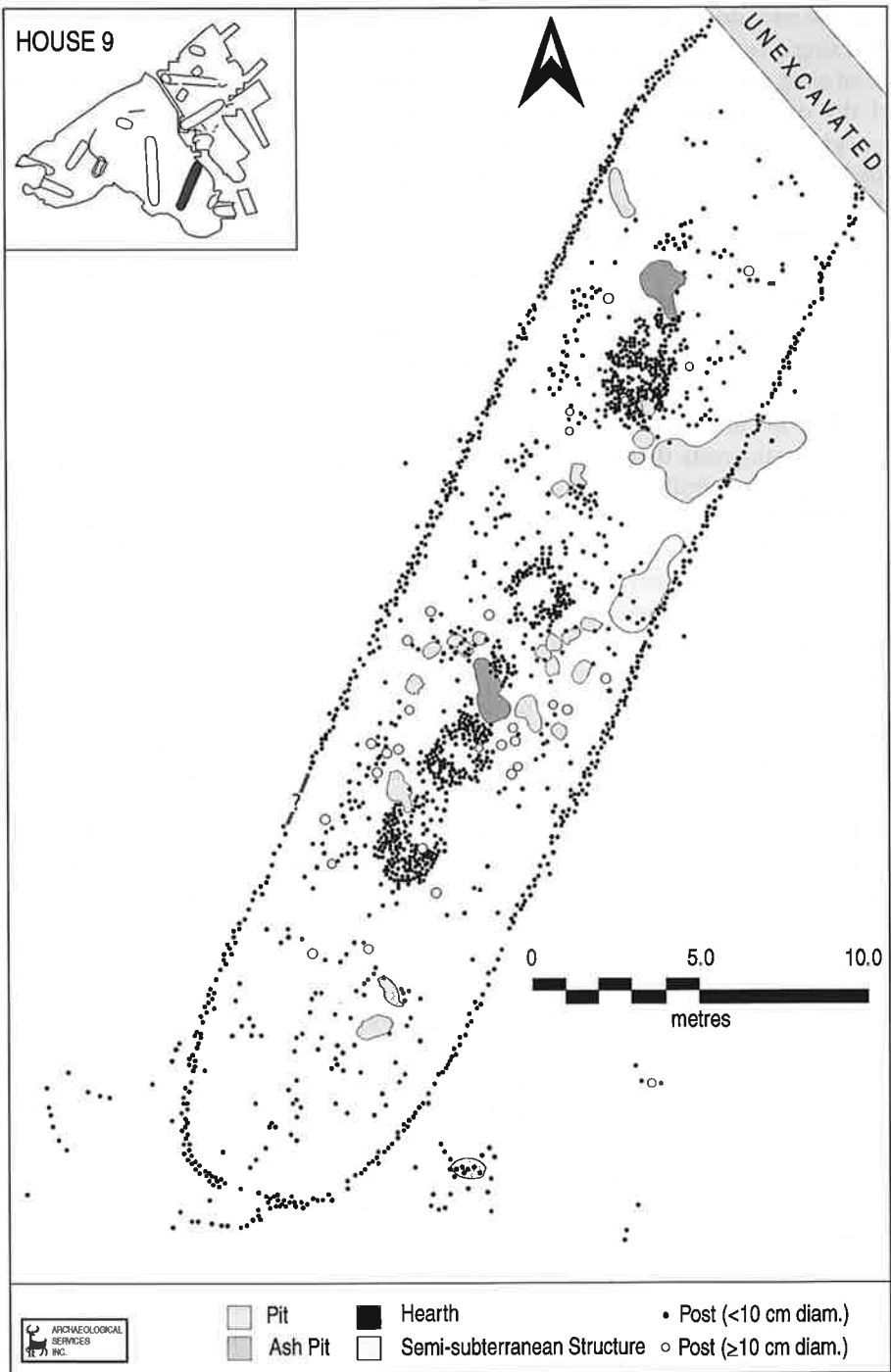


FIGURE 8. House 9 at the Dunsmore site. Only features mentioned in text are identified.

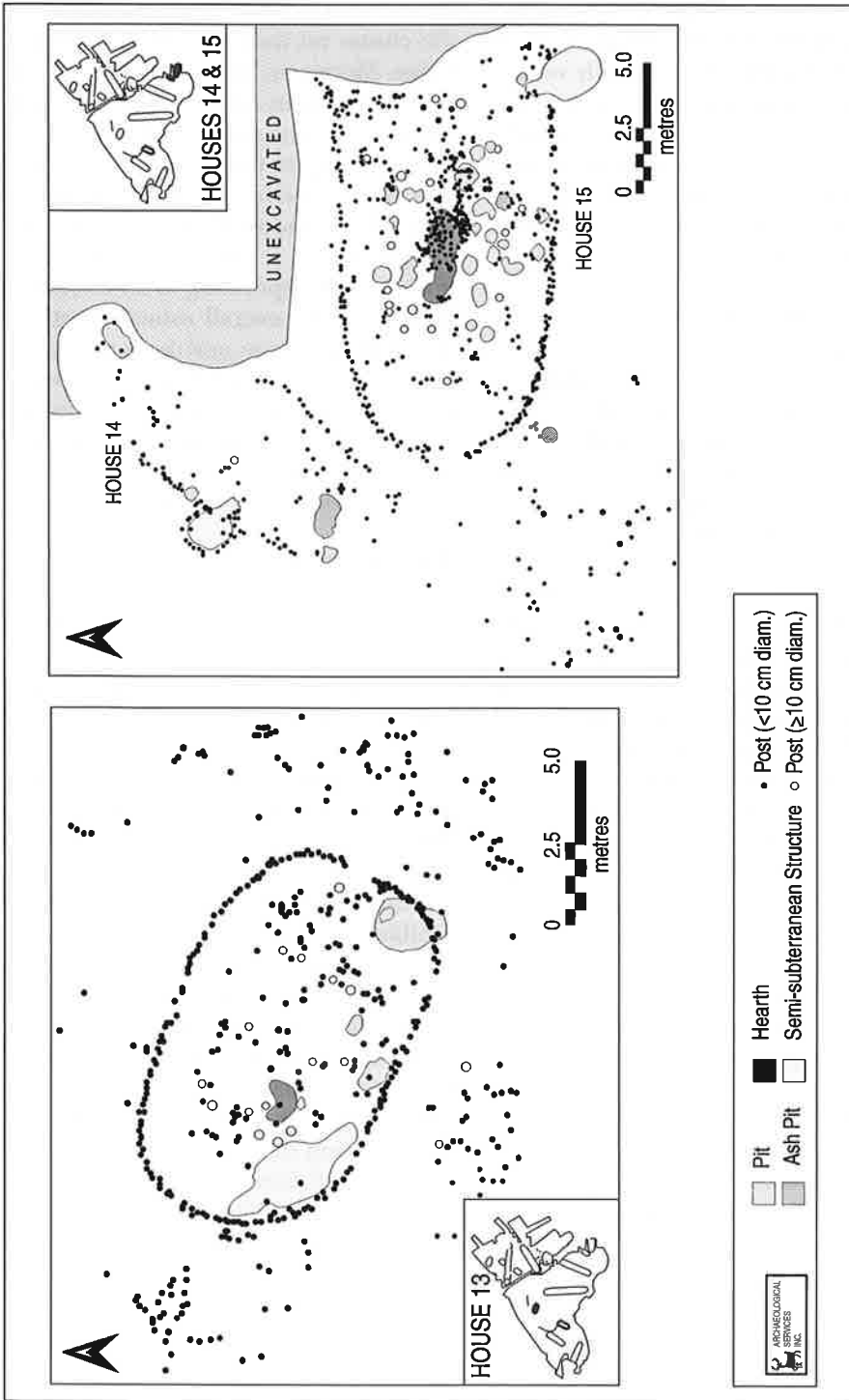


FIGURE 9. Houses 13, 14 and 15 at the Dunsmore site. Only features mentioned in text are identified.

or post clusters within the structure—and the possibility that some of those that were present were actually related to exterior activities in this area of the site—complicates matters. It is equally possible that the structure represents a warm weather or short-term occupation, given the evidence for considerable exterior activity.

House 14 (Figures 3 and 9)

House 14 was a small open-ended structure that was somewhat asymmetrical in plan, since the sidewalls tapered somewhat towards the south end of the structure. The walls were primarily formed by a single row of posts. The internal distribution of posts and features suggest that interior activity was confined largely to the southern and western portions of the structure. Although no hearth was documented, a very large ash pit lay near the south end of the structure, together with a small pit. A semi-subterranean sweat lodge had been appended to the west side wall, with its entrance projecting through the wall. It is unlikely that House 14 functioned as a permanent dwelling. However, it may have served as a temporary shelter or special purpose structure.

House 15 (Figures 3 and 9)

House 15 extended into the tree-line and was not completely excavated. The structure is unlikely to have exceeded 15 m in length since the excavation of an additional trench 10 m to the east, on the opposite side of the tree-line failed to yield any settlement patterns. Furthermore, the side walls of the house along the eastern edge of the excavation appeared to begin tapering inward toward the central axis of the structure and in the case of the southwest end,

no further posts could be found beyond the cluster on the east side of the sweat lodge. Moreover, the orientation of the sweat lodge at an angle of approximately 60 degrees to the south side wall also suggests a change in the course of the house wall. The western portion of the house tapered to a smoothly rounded end wall, interrupted by a 1.0 to 1.5-m-wide gap, probably corresponding to an entrance. In light of the overall robust construction of the structure, and the comparative density of interior posts and features, it would appear that House 15 was intensively occupied, possibly serving as a winter dwelling, although it seems to have lacked extensive internal formality.

House 8 (Figures 3 and 10)

House 8 had very short tapers, rounded corners, and only slightly rounded ends. Although no hearths were documented in the house, it did contain three well-defined semi-subterranean sweat lodges, together with the probable remains of three more poorly defined semi-subterranean structures. All of these features were situated with their long axes parallel to the side walls of the house. As was the case in House 1, these features exhibited a high degree of symmetry with respect to location and layout.

House 8 may represent a year-round residence. The presence of the sweat lodges within the structure suggests that at least one hearth likely was present, although no trace of such a feature was found during the excavations. In terms of its overall form, however, House 8 appeared to have been built to withstand cold weather. The considerable degree of exterior activity in the areas adjacent to the structure suggests that it was also occupied during the warmer seasons, perhaps over a number of years.

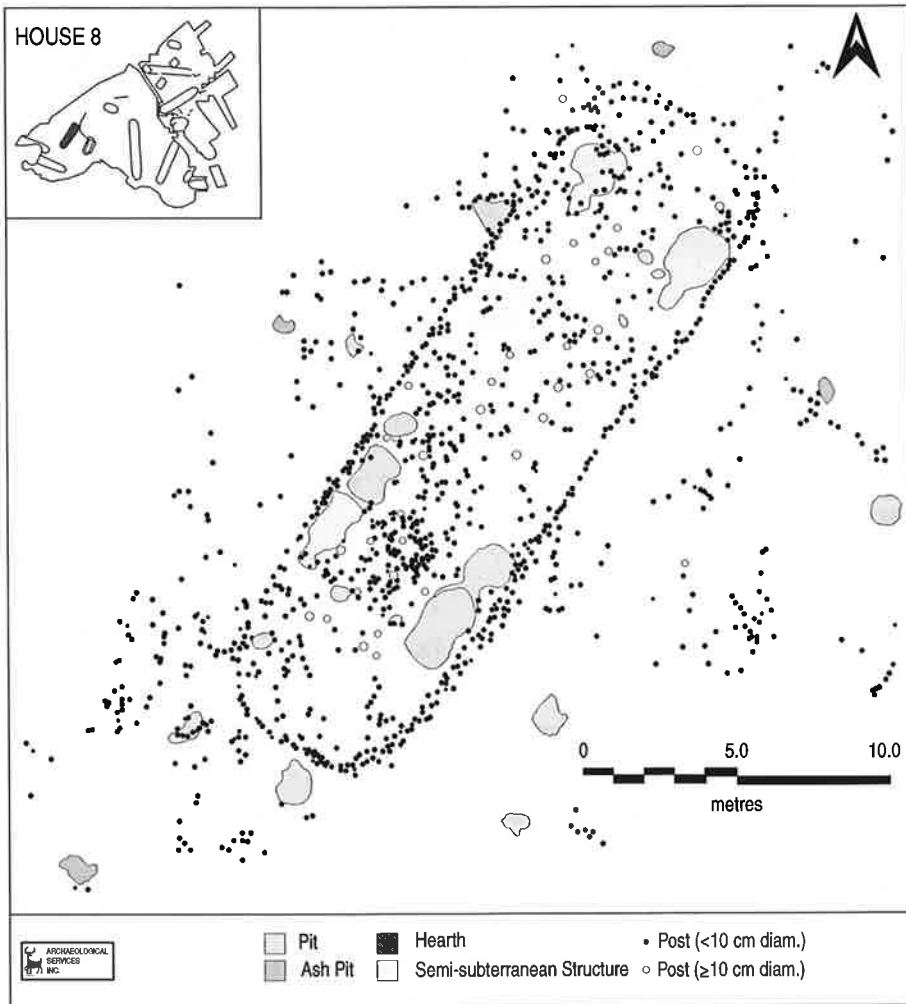


FIGURE 10. House 8 at the Dunsmore site. Only features mentioned in text are identified.

House 10 (Figures 3 and 11)

House 10 lay in close proximity to the break-in-slope that defined the western limits of the settlement area. This structure could not be completely documented due to disturbance caused by the cutting of a laneway down the slope and by the subsequent erosion of its banks.

In terms of overall form, the original east end had a short taper length, rounded corners and a flat end. A well-

defined gap in the south wall likely represents an entrance. A 4-m-long addition to the east end was rather more narrow and rounded. Two lines of posts extending from its north side wall towards the end of the neighbouring House 11 suggest that a small sheltered work area may have been appended to the house. Two successive sweat lodges were associated with the house: the earlier being located in the bunkline area on an angle to the

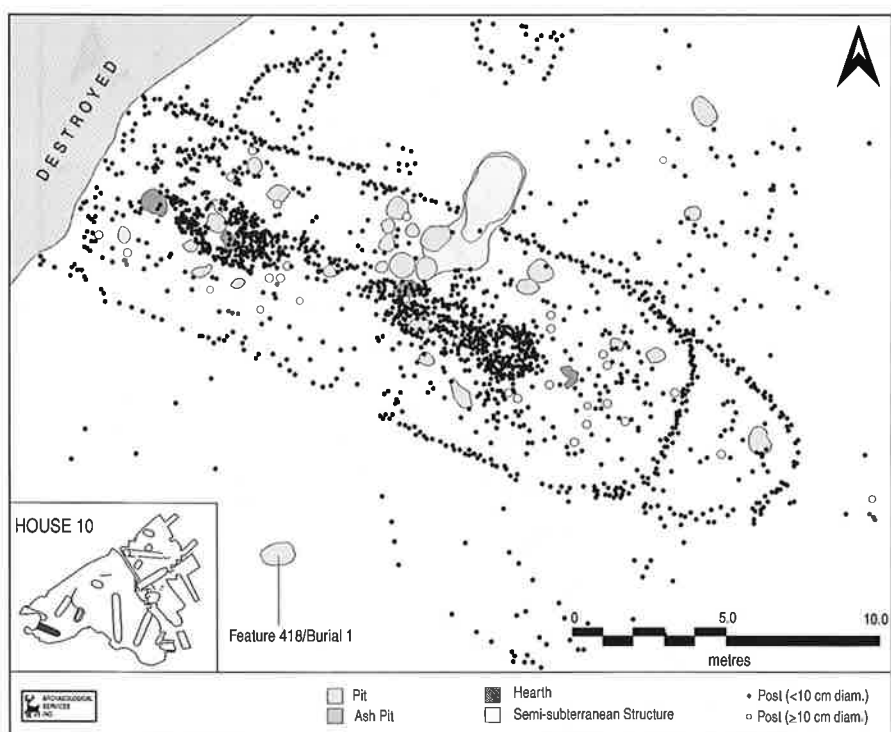


FIGURE 11. House 10 at the Dunsmore site. Only features mentioned in text are identified.

house wall, while the main body of the later feature lay outside the house.

The apparent intensity of activity within House 10, combined with the overall robust appearance of the structure, suggest that it could have been occupied during the winter months, or on a year-round basis. Moreover, the interior of the structure appears to have been more formally compartmentalized than many of the other houses.

Approximately 6 m to the southwest of House 10, and directly opposite the mid-wall doorway to the structure, a single pit (Feature 418/Burial 1 [Figure 11]) contained a pair of articulated and tightly flexed legs, as well as several fragmentary cranial bones and some scattered teeth. Two children, estimated to be seven and

11 years of age respectively, are represented by these remains (Dudar *et al.* 1996: 183).

House 11 (Figures 3 and 12)

As was the case with House 10, House 11 was only partially excavated, as it too was located near the southwestern slope where both erosion and the previous construction of the laneway had destroyed the archaeological deposits. Neither the west end of the house, nor a major portion of the interior along its south side could be documented as a result of this disturbance. The east end of the house tapered to rounded corners that gave way to a narrow flat end. In the middle of the end wall was a row of posts that curved toward the interior

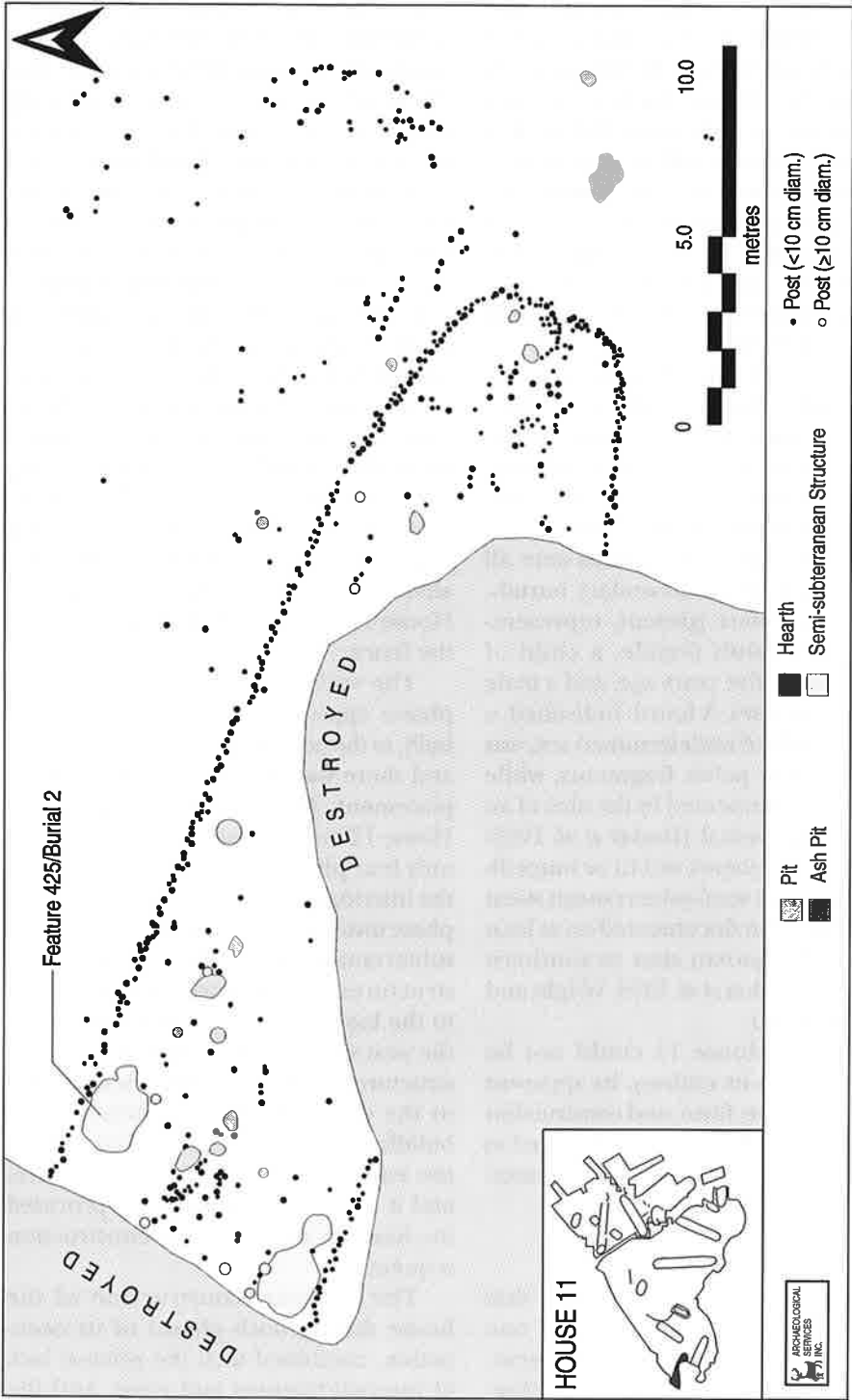


FIGURE 12. House 11 at the Dunsmore site. Only features mentioned in text are identified.

of the house. Although such an alignment is reminiscent of a portal screen or windbreak, no sufficiently wide gap was visible in the end wall itself to confirm the presence of a doorway. Rebuilding or repair to the end wall, as suggested by the greater density and less regular pattern of post placement, however, may have obscured such an opening. There may also have been a small cubicle in the northeast corner of the house, similar to that seen in House 2.

One of the two sweat lodges encountered within House 11 (Feature 425/Burial 2 [Figure 12]) was used for the burial of a minimum of five individuals. Although these remains were highly disarticulated and poorly preserved, it appeared that these individuals were all interred together as secondary burials. Three crania were present, representing a young adult female, a child of approximately five years age, and a male in his late twenties. A fourth individual, a 40–45 year old of undetermined sex, was represented by pelvic fragments, while the fifth was represented by the ulna of an immature individual (Dudar *et al.* 1996: 185–187). Interments within or immediately adjacent to semi-subterranean sweat lodges have been documented on at least two other Iroquoian sites in southern Ontario (Ramsden *et al.* 1998; Wright and Anderson 1969).

Although House 11 could not be documented in its entirety, its apparent similarities in size, form, and construction to Houses 7 and 9 suggest that it served as a winter/year-round dwelling for numerous families.

House 12 (Figures 3 and 13)

House 12 was a small structure that appeared to have been rebuilt on one occasion with some lateral displacement. As a result of this rebuilding, the defini-

tion of the house and its components was somewhat obscured. This lack of clarity was further compounded by the fact that the structure was intersected by a large fence that ran west of House 13, past the north end of House 8 and through the area occupied by House 12 during either one or both of its phases of occupation. Overall, both phases seem to have made use of a structure of similar size and form. It would appear that the reconstruction of the house involved a shift of approximately 2.5 m to either the southeast or northwest. Although the evidence remains somewhat equivocal, it seems most likely that the more easterly of the structures was the earlier. By the time the house was rebuilt, the fence had probably gone out of use or had been somewhat altered, since the north end of the later House 12 overlapped the general line of the fence.

The walls of the house during both phases appear to have been irregularly built, as the posts were often widely spaced and there was little consistency in their placement. Although the occupation of House 12 involved two structural phases, only four pits were scattered throughout the interior area of the buildings, yet each phase involved the construction of a semi-subterranean sweat lodge. Each of these structures was oriented perpendicular to the long axis of the house, one along the west side wall of the eastern (earlier) structure, whereas the other was located in the east wall of the western (later) building. The latter appeared to overlap the east wall of the eastern structure, and it is this relationship that provided the basis for the suggested construction sequence.

The irregular construction of the house during both phases of its occupation, combined with the relative lack of internal features and posts, and the

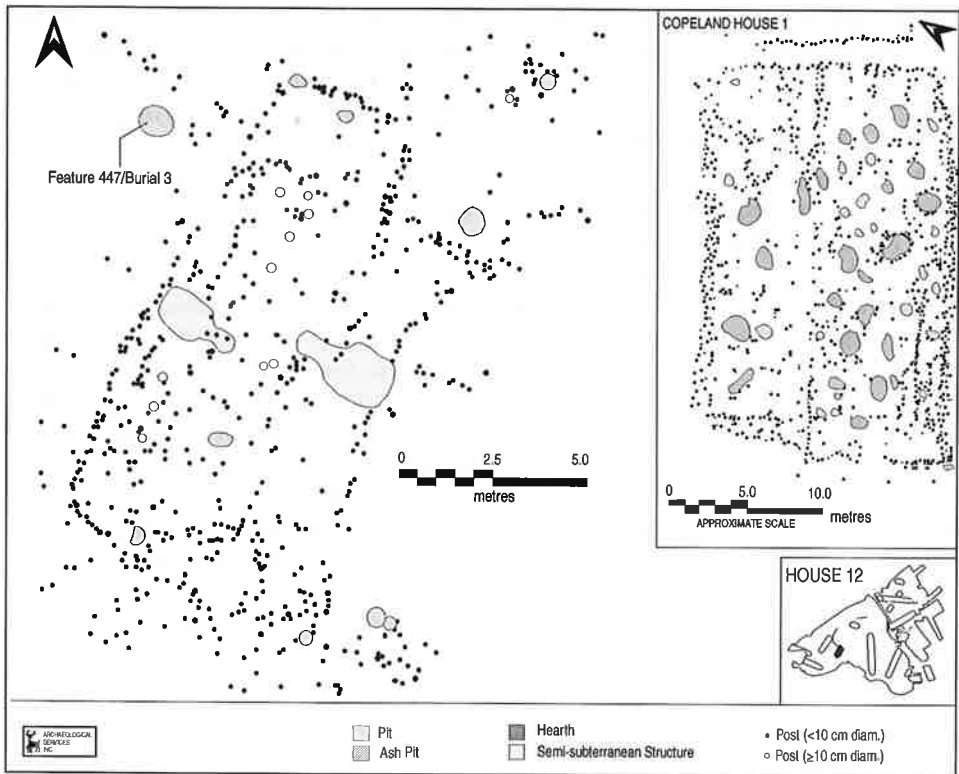


FIGURE 13. House 12 at the Dunsmore site and House 1 from the Copeland site. Only features mentioned in text are identified.

contrasting high density of exterior posts and features in the immediate vicinity, all suggest warm weather occupation on at least two occasions. In terms of its overall form, House 12 is reminiscent of an unusual structure documented at the late 15th- to early 16th-century Copeland site (Channen and Clarke 1965: 6). The character of this rectangular structure, which as documented measured approximately 27 m in length by 17 m in width, has never been fully resolved. Although some researchers have reservations concerning the recording of the Copeland settlement patterns (e.g., Kapches 1984: 65), others have been willing to suggest that it represents a single-phase, gabled building that

is simply illustrative of the variability of Iroquoian house forms (Channen and Clarke 1965: 6; Trigger 1976: 151). Still others have suggested that it was a ceremonial structure denoting interaction with groups in the Ohio valley (Jamieson 1992: 78). In light of the evidence from House 12 at Dunsmore, it may be suggested that it is rather more likely that the Copeland structure represents a similar, but possibly more complex or extensive, sequence of reconstruction.

The bundled remains of an adult male (Dudar *et al.* 1996: 188), who had been placed in a shallow grave (Feature 447/Burial 3), were found 2 m from the west wall of the later phase House 12 and

immediately adjacent to a gap in a fence line running between House 8 and 12 (Figure 13).

THE ARTIFACT ASSEMBLAGE

Approximately 7,100 artifacts were recovered during the 1989–1990 excavations (Table 4). The present discussion is primarily limited to the ceramic vessel sample, although summary treatments of the other artifact classes are also provided.

Ceramic Vessel Analysis

A total of 5,483 sherds forming portions of vessel rims, necks, shoulders, and bodies (individually or in various combinations) constitute the ceramic vessel assemblage from the excavations. There are 561 rims and rim fragments, 176 neck/shoulder sherds, and 3,102

body sherds. There are also 1,060 unanalysable sherds. Two hundred and thirty-three (8%) of the body sherds display evidence of decoration or surface treatment in the form of ribbed paddling ($n=114$), incised opposed or horizontal elements ($n=106$), and cord-wrapped stick elements ($n=13$).

One hundred and ninety-five juvenile vessels, two strap handles, 44 lumps of clay, and one unidentified clay object were also recovered. A detailed analysis of the juvenile assemblage, over 20% of which was recovered from a single semi-subterranean structure in House 8, was undertaken by Patricia Smith (Smith 1998) and is not considered here.

The adult vessel rims were mended and sorted into 177 vessels. No instances of vessel mends between houses or between houses and middens were encountered during this exercise. The vessels were then analysed using attribute and traditional typological approaches (Williamson 1996) to facilitate future inter- and intrasite comparative studies. Data from the Midden C assemblage (constituting 34 vessels) were not included in the attribute analysis, but these vessels are considered in the discussion of intrasite vessel type distribution patterns.

Vessel Attributes

Rims were considered analysable when they exhibited both interior and exterior surfaces, the lip, and sufficient exterior collar-neck area to ascertain decorative styles and attributes. Summary descriptive statistics of individual attributes and metrics are presented in Table 5.

Most of the vessels in this assemblage have well-defined collars. The vast majority of collar heights on non-Lalonde vessels in the assemblage range between 7 mm and 42 mm, with most falling

TABLE 4. The 1989–1990 Dunsmore site artifact assemblage.

| Artifact Class | Frequency | % |
|------------------------|-----------|-------|
| Ceramics* | — | — |
| Rim Sherds | 561 | 9.3 |
| Neck & Shoulder Sherds | 176 | 2.9 |
| Body Sherds | 3,102 | 51.3 |
| Pipe Fragments | 126 | 2.1 |
| Juvenile Vessel Sherds | 195 | 3.2 |
| Miscellaneous | 47 | 0.8 |
| Lithics | — | — |
| Formal Tool | 1 | <0.1 |
| Utilized Flakes | 113 | 1.9 |
| Debitage | 723 | 11.9 |
| Ground Stone Items | 61 | 1.0 |
| Other | — | — |
| Copper Sheet/Scrap | 1 | <0.1 |
| Faunal Remains | — | — |
| Bone | 896 | 14.8 |
| Worked Bone | 45 | 0.7 |
| TOTAL | 6,047 | 100.1 |

* excludes 1,060 unanalyzable sherds

TABLE 5. Dunsmore ceramic vessel attribute frequencies.

| Rim Form (n=177) | n | % | Lip Form (n=177) | n | % |
|---|----------|----------|------------------------------------|----------|----------|
| Collared | 164 | 92.7 | Flat | 173 | 97.9 |
| Incipient Collared | 11 | 6.2 | Rounded | 3 | 1.7 |
| Collarless | 2 | 0.1 | Pointed | 1 | 0.6 |
| Angle of Lip to Interior (n=177) | | | Rim Orientation (n=160) | | |
| Right | 108 | 62.1 | Outflaring | 83 | 51.9 |
| Obtuse | 49 | 28.2 | Vertical | 74 | 46.3 |
| Acute | 17 | 9.8 | Insloping | 3 | 1.9 |
| Interior Profile (n=173) | | | Collar Techniques (n=175) | | |
| Straight | 82 | 47.4 | Linear Stamped | 88 | 50.3 |
| Concave | 45 | 25.4 | Incised | 58 | 33.1 |
| Convex | 38 | 22.5 | Linear Stamped/Incised | 8 | 4.6 |
| Concave/Convex | 5 | 2.9 | Linear Stamped+Incised | 5 | 2.9 |
| Convex/Concave | 3 | 1.7 | Incised/Linear Stamped | 4 | 2.3 |
| Collar Motifs (n=175) | | | Incised+Linear Stamped | 3 | 1.7 |
| Oblique | 81 | 46.3 | Incised interrupted by | | |
| Oblique+Horizontal | 30 | 17.1 | Plain | 2 | 1.1 |
| Horizontal | 18 | 10.3 | Plain | 2 | 1.1 |
| Opposed | 17 | 9.7 | Linear Punctate | 2 | 1.1 |
| Oblique/Horizontal | 13 | 7.4 | Incised interrupted by | | |
| Horizontal/Oblique | 4 | 2.3 | Plain/Incised | 1 | 0.6 |
| Plain | 2 | 1.1 | Linear Stamped+Linear | | |
| Hatched | 1 | 0.6 | Stamped interrupted by | | |
| Horizontal+Oblique/Horizontal | 1 | 0.6 | Plain | 1 | 0.6 |
| Horizontal/Hatched/Horizontal | 1 | 0.6 | Neck Techniques (n=140) | | |
| Horizontal/Opposed/Horizontal | 1 | 0.6 | Plain | 103 | 73.6 |
| Horizontal interrupted by Plain | 1 | 0.6 | Incised | 22 | 15.7 |
| Oblique interrupted by Plain | 1 | 0.6 | Linear Stamped | 4 | 2.8 |
| Oblique interrupted by Plain/ Horizontal | 1 | 0.6 | Incised/Linear Stamped | 3 | 2.1 |
| Opposed+Horizontal | 1 | 0.6 | Incised/Linear Punctate | 3 | 2.1 |
| Opposed/Horizontal | 1 | 0.6 | Incised/Punctate | 2 | 1.4 |
| Opposed interrupted by Plain | 1 | 0.6 | Incised interrupted by | | |
| Neck Motifs (n=141) | | | Plain | 2 | 1.4 |
| Plain | 103 | 73.0 | Incised+Miscellaneous | 1 | 0.7 |
| Horizontal | 18 | 12.8 | Interior Techniques (n=177) | | |
| Horizontal/Oblique | 10 | 7.1 | Plain | 150 | 84.7 |
| Horizontal/Opposed | 3 | 2.1 | Linear Stamped | 15 | 8.5 |
| Oblique | 2 | 1.4 | Linear Punctate | 10 | 5.6 |
| Oblique interrupted by Plain | 2 | 1.4 | Incised | 1 | 0.6 |
| Horizontal+Horizontal | 1 | 0.7 | Punctate | 1 | 0.6 |
| Oblique+Horizontal | 1 | 0.7 | Lip Techniques (n=177) | | |
| Opposed | 1 | 0.7 | Plain | 154 | 87.0 |
| Interior Motifs (n=177) | | | Linear Stamped | 16 | 9.0 |
| Plain | 150 | 84.7 | Linear Punctate | 4 | 2.3 |
| Oblique | 26 | 14.7 | Incised | 2 | 1.1 |
| Punctate | 1 | 0.6 | Punctate | 1 | 0.6 |
| Collar Base Shape (n=174) | | | Lip Motifs (n=177) | | |
| Rounded | 95 | 54.6 | Plain | 154 | 87.0 |
| Angular | 79 | 45.4 | Oblique | 19 | 10.7 |
| | | | Horizontal | 3 | 1.7 |
| | | | Punctate | 1 | 0.6 |

between 11 mm and 15 mm. The Lalonde vessels, on the other hand, range between 36 mm and 61 mm in height. Generally, Huron or Lawson Incised vessels, as well as those with neck decoration (Black Necked and Pound Necked), have short to medium collars (7–20 mm), although several Incised vessels have much higher collars. Earlier vessels (Middleport Oblique, Ontario Horizontal) also tend to have higher collars.

Typological Analysis

Figures 14–16 illustrate a selection of the vessels. Traditional types (Table 6) were evaluated following the type definitions established by MacNeish (1952). Huron Incised vessels are most common. This is a low collared, outflaring type with a straight or convex interior collar profile although most are straight. Decoration consists of incised or stamped simples on

the collar, with plain lip and neck. Shoulder decoration occasionally occurs. The difference between Huron and Lawson Incised vessels is the concave, often channelled, interior rim profile on the latter. In rare cases with both types, collar bases are notched.

The Huron or Lawson Incised variant referred to in Table 6 is identical in all respects to the traditional types with the addition of a linear-stamped or incised, but still relatively short horizontal element on the collar, overlying or more frequently placed immediately under the collar obliques. Sometimes the horizontal element is located on or just below the base of the collar. While MacNeish referred to this as a variant of Middleport Oblique (MacNeish 1952: 103) and Sutton (1996b: Table 46) has typed them as Sidey Crossed, the other attributes of these vessels suggest the



FIGURE 14. Reconstructed Middleport Oblique-type vessel. Note the changing direction of the obliques midway between the castellations.

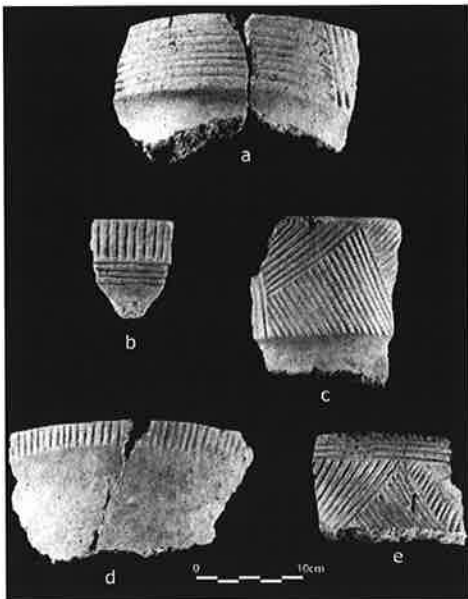


FIGURE 15. Selected vessel rims: (a) Ontario Horizontal, (b) Pound Necked, (c) High Collar, (d) Huron Incised and (e) Black Necked.

horizontal elements were added to what would otherwise be Huron or Lawson Incised vessels. This variant constitutes 30% of the vessels at the nearby early to mid-15th-century Hubbert site (MacDonald and Williamson 2001: 53) and is also present, in minor frequencies, in several late 13th- to early 15th-century assemblages from southern Ontario (e.g., Austin and Welsh 1999: 69; Ramsden 1977: 97, 102, 105; Ramsden and Williamson 1998: 145).

Black Necked vessels are also common. These vessels generally have straight to convex interior profiles and are often decorated on the exterior neck surface with simples, horizontals, or

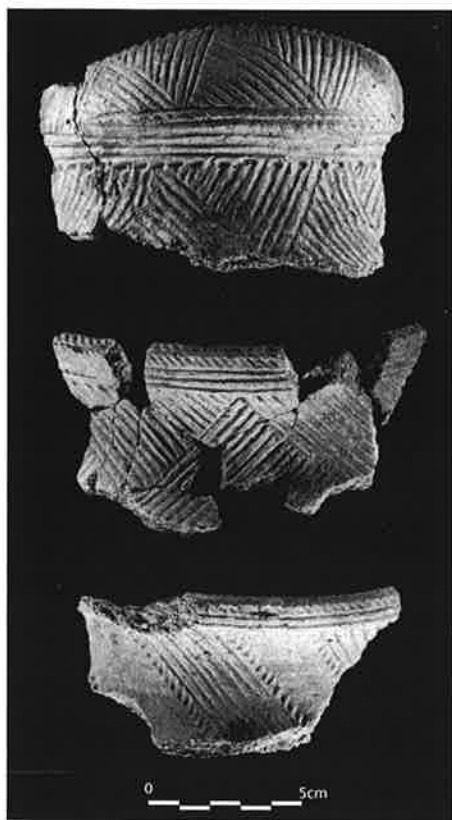


FIGURE 16. Selected vessel rims: Necked variants.

TABLE 6. Dunsmore ceramic vessel type frequencies (n=177).

| Type | n | % |
|------------------------|----|----|
| Huron Incised | 37 | 21 |
| Huron Incised-variant | 23 | 13 |
| Black Necked | 37 | 21 |
| Middleport Oblique | 14 | 8 |
| Lalonde High Collar | 15 | 8 |
| Pound Necked | 11 | 6 |
| Ontario Horizontal | 11 | 6 |
| Lawson Incised | 10 | 6 |
| Lawson Incised-variant | 6 | 3 |
| Miscellaneous | 3 | 2 |
| Black Necked-variant | 3 | 2 |
| Lawson Opposed | 2 | 1 |
| Niagara Collared | 2 | 1 |
| Warminster Crossed | 1 | 1 |
| Pound Necked-variant | 1 | 1 |
| Middleport Criss-Cross | 1 | 1 |

opposed triangles filled with horizontals or obliques. The collars may have either obliques or horizontals. In the many cases where the collars have oblique motifs with horizontal motifs on the neck, the vessels have still been typed as Black Necked if the interior profile is straight or convex. They have been attributed to Pound Necked if the interior profile was concave. Both of these types also have minor variants where the interrupted horizontal element was added to the collar obliques. The “miscellaneous” untyped vessels all have complex, unusual neck decoration, suggesting that they might also be considered variants of Necked vessel types.

Middleport Oblique vessels are slightly outflaring with poorly defined collars. They are characterized by incised obliques or gashes on the upper rim with horizontals on the lower rim and neck. In this assemblage, many of the necks are plain. The differentiation, however, between Middleport Oblique and Pound

Necked vessels has been made on strict adherence to the position of the horizontal elements: immediately above or on the collar base for the former and below the collar base for the latter. Sutton's (1996b: 63) evaluation of 8% more Middleport Oblique on the site may stem from inconsistencies in evaluating this difference or from the fact that he included a sample from Hunter's test excavation from the largely unexplored component of the site lying approximately 30 m to the northwest of the 1989–1990 excavation area.

There are only eleven Ontario Horizontal vessels in the assemblage. These all have sizable, fairly well-defined collars with straight to concave interior

profiles and plain necks. They differ from Warminster Horizontal vessels in the size of the collars and in the absence of convex interior profiles.

In summary, if one accepts Wright's seriation scheme (Wright 1966: 70–71) and the ascription of the variants to late types, the fact that Huron Incised, Lawson Incised, Lawson Opposed, and Black Necked types account for approximately 66% of the vessels from the site places the Dunsmore ceramic assemblage comfortably in the late pre-contact Iroquoian period in south-central Ontario.

Table 7 provides percentage frequencies for traditional types for this and other assemblages from mid-14th-

TABLE 7. Percentage frequencies of vessel types from selected Barrie area sites.

| | Wiacek* | Carson | Dunsmore | Hubbert |
|------------------------|---------|--------|----------|---------|
| Ontario Oblique | 1 | 0 | 0 | 0 |
| Iroquois Linear | 1 | 0 | 0 | 0 |
| Ontario Horizontal | 9 | 1 | 6 | 1 |
| Middleport Criss Cross | 3 | 0 | 1 | 0 |
| Middleport Oblique | 24 | 11 | 8 | 11 |
| Pound Necked | 23 | 0 | 6 | 14 |
| Pound Necked-variant | 0 | 0 | 1 | 0 |
| Black Necked | 9 | 40 | 21 | 5 |
| Black Necked-variant | 0 | 0 | 2 | 0 |
| Huron Incised | 3 | 12 | 21 | 6 |
| Huron Incised-variant | 0 | 0 | 13 | 30 |
| Lawson Incised | 7 | 0 | 6 | 9 |
| Lawson Incised-variant | 0 | 0 | 3 | 0 |
| Lawson Opposed | 6 | 0 | 1 | 2 |
| Pound Blank | 3 | 0 | 1 | 2 |
| Lalonde High Collar | 3 | 25 | 8 | 3 |
| Niagara Collared | 1 | 2 | 1 | 3 |
| Ripley Plain | 1 | 0 | 0 | 1 |
| Warminster Horizontal | 0 | 2 | 0 | 2 |
| Warminster Crossed | 1 | 0 | 1 | 0 |
| Sidey Notched | 0 | 1 | 0 | 4 |
| Sidey Crossed | 1 | 2 | 0 | 2 |
| Copeland Incised | 3 | 2 | 0 | 0 |
| Miscellaneous | 5 | 3 | 3 | 3 |

* includes the 1983 (Lennox *et al.* 1986) and 1990 (Robertson *et al.* 1995) assemblages.

to mid-15th-century sites in the Barrie area. Data are presented for only those sites that have been subjected to large-scale excavation (i.e., Wiacek, Carson, and Hubbert), and the seriation exercise focuses on only those trends thought to be temporally sensitive. The type frequencies suggest that the Wiacek site is the earliest of the sample, based on the relative frequencies of classic Middle Iroquoian wares (Ontario Horizontal, Middleport Oblique). The relative frequencies of Black Necked and Huron Incised types, on the other hand, point to Carson predating Dunsmore and Hubbert, although the significant percentage of Lalonde High Collar wares at Carson suggests an affiliation with a group of select sites that manufacture quite distinctive pottery (*cf.*, Varley 1993). It should also be noted that there are significant differences in type frequencies for Black Necked and Lalonde vessels between the complete typological analysis of the Carson site ceramic vessels (ARA 1990) and Varley's more detailed analysis of the site as a Lalonde component (Varley 1993).

In order to examine the relationships between these sites in more detail, the types were categorized into six categories that are based on gross chronological trends. The first group (Early) consists of Ontario Oblique, Iroquois Linear, and Ontario Horizontal; the second

group (Middle) consists of Middleport Oblique and Middleport Criss-Cross; the third group (Necked) consists of Black and Pound Necked; the fourth group (Incised) includes Huron Incised, Lawson Incised, Lawson Opposed, Pound Blank, and their variants with interrupted horizontal gashes; the fifth constitutes the Lalonde High Collar vessels; and the final one includes all other types such as plain or miscellaneous vessels. Table 8 provides the frequencies for these vessel groups. If Wiacek is a Middle Iroquoian period site, as these vessel data and radiocarbon dates suggest (Robertson *et al.* 1995: 57), then Carson can be seen to seriate chronologically between Wiacek on the one hand and Dunsmore and Hubbert on the other—if one accepts that Necked pottery increases in frequency toward the end of the 14th century and gradually gives way to Incised vessels. The frequencies of Lalonde vessels at Carson relative to Dunsmore and Hubbert suggest either that "Lalonde" is very temporally specific or that Carson was inhabited by people who decorated their pots in a different manner from their nearby contemporaries. Regardless of interpretation, the AMS date of AD 1507±27 for Carson (Varley 1993:75) is at odds with the other vessel data, which suggest that the site dates to the early 15th century.

TABLE 8. Vessel group frequencies from selected Barrie area sites.

| | Wiacek* | Carson | Dunsmore | Hubbert |
|---------|---------|--------|----------|---------|
| Early | 11 | 1 | 6 | 1 |
| Middle | 27 | 11 | 9 | 11 |
| Necked | 32 | 40 | 30 | 19 |
| Lalonde | 3 | 25 | 8 | 3 |
| Incised | 19 | 12 | 45 | 49 |
| Others | 12 | 12 | 4 | 15 |

* includes the 1983 (Lennox *et al.* 1986) and 1990 (Robertson *et al.* 1995) assemblages.

To test this seriation order further and to investigate the chronological relationship between Hubbert and Dunsmore, their attribute data were compared with those from Wiacek (Table 9). Attribute data for Carson were not available. Based on the assumptions that (a) the presence of well-defined collars increases in frequency with time; (b) that horizontals on collars decrease toward the end of the 14th century; (c) that horizontals on necks decrease in frequency throughout the late 14th to mid-15th centuries; and (d) lip and interior decoration (not including lip notching) both decrease in frequency with time, Dunsmore may postdate Hubbert, both of which clearly postdate Wiacek.

Prior to the 1989–1990 excavations, the one radiocarbon date of 590±50 BP (GSC-2663) available for Dunsmore, which was based on wood charcoal collected during Hunter’s 1977 explorations, had generally been rejected as too early (e.g., Dodd *et al.* 1990: Table 10.1). Recalibration of this date, which yielded a return of cal AD 1340 (cal AD 1300–1410 at 1 δ and cal AD 1290–1430 at 2 δ), does little to alter this assessment. In an effort to test the seriation of the 1989–1990 ceramic assemblage, two wood charcoal samples from semi-subterranean sweat lodges in Houses 7 and 10 were radio-

carbon dated. The House 7 sample of charred maple, beech, and ash yielded a result of 940±75 BP (WAT-2973), while maple, beech, and elm from House 10 produced a return of 800±70 BP (WAT-2974). The House 7 sample calibrates to cal AD 1020–1210 at 1 δ and cal AD 980–1260 at 2 δ (although this return produced an excessive number of intercepts), while the House 10 sample calibrates to cal AD 1160–1280 at 1 δ and cal AD 1040–1380 at 2 δ (Stuiver and Reimer 1993; Stuiver *et al.* 1998). Both of these dates are grossly inconsistent with the artifactual and settlement pattern data. Subsequent dating of a fragment of a charred maize cob, recovered from House 8, yielded a return of 430±70 BP/cal AD 1450 (TO-6080), with ranges of cal AD 1430–1610 at 1 δ, and cal AD 1340–1640 at 2 δ. Unlike the results obtained from carbonized wood samples, the maize date is entirely in accord with that expected on the basis of the ceramic assemblage. Similar discrepancies between ceramic data and radiocarbon dates derived from wood charcoal, on the one hand, and between maize and wood charcoal radiocarbon dates, on the other, have been encountered at the nearby Wiacek (Lennox *et al.* 1986: 159–160) and Hubbert sites (MacDonald and Williamson 2001: 55), suggesting the

TABLE 9. Comparison of selected attributes between the Wiacek, Hubbert and Dunsmore vessel assemblages.

| | Wiacek* | Hubbert | Dunsmore |
|---|---------|---------|----------|
| Well-defined Collars | 71 | 88 | 93 |
| Horizontals on Collar with Neck Decoration* | 52 | 19 | 14 |
| Horizontals on Neck** | 41 | 37 | 28 |
| Interior Decoration | 8 | 8 | 15 |
| Lip Decoration (not notching) | 20 | 18 | 11 |

* includes the 1983 (Lennox *et al.* 1986) and 1990 (Robertson *et al.* 1995) assemblages.

** not including Lalonde High Collar vessels.

possibility of large scale contamination due to local forest fires. It also highlights both the value of dating cultigens rather than wood charcoal (*cf.*, Little 2002: 115–116) and the need for detailed investigation of the pre-contact fire regimes of the mixed hardwood forests of the area in order to assess charcoal contamination in archaeological contexts.

Other Artifact Classes

The ceramic pipe assemblage consisted of a total of 124 fragments and two complete pipes. Of the 29 analysable bowls, trumpet forms were the most numerous (59%), followed by conical (21%), barrel (10%), effigy (5%), and vasisform (5%) (E. MacDonald 1996: 81). One miniature and at least four non-functional “juvenile” pipes are also present in the sample. Plain bowls make up 55% of the sample, while the majority of the decorated specimens display simple oblique or horizontal motifs often accompanied by punctates (E. MacDonald 1996: 81–82). The two effigy forms include a complete double-headed effigy with human and dog or wolf elements that had been recycled from a pipe (Figure 17), and a bowl fragment exhibiting the remains of a modelled limb (E. MacDonald 1996: 82). A high proportion of the pipe sample had been burnished, and a red slip was observed on five fragments (E. MacDonald 1996: 86–87).

As on other Simcoe County sites, the chipped stone assemblage (Table 10) is limited in quantity, consisting of only a single formal tool (a Nanticoke Notched-type projectile point), 113 utilized flakes, and 723 pieces of debitage (MacDonald and Pihl 1996: 89–91). Less than one-third of this material was Onondaga chert, while the remainder consisted of cherts from sources in the Trent Valley (MacDonald and Pihl 1996: 90–91), but

which were probably also available as pebbles in the local tills. The paucity of formal tools, the high frequency of local cherts, and the common use of bipolar reduction techniques all indicate the need to derive maximum use from both local and imported raw materials and to curate finished tools (MacDonald and Pihl 1996: 95).

Almost a quarter of the 61 ground stone tools recovered were hard, fist-sized stones that were likely used as anvils for bipolar flaking (MacDonald and Pihl 1996: 92–95). Although no metates were recovered, four manos that were subsequently re-used as anvilstones indicate the processing of plant foods. Together with the various abrading tools represented, all the anvilstones likely were procured locally. In contrast, the five ground stone chisel fragments and seven fragmentary axes recovered were manufactured from a distinctive greenish-black rock, tenta-



FIGURE 17. The human side of the double-headed effigy figure recycled from a ceramic pipe. The other side is a representation of a wolf or dog-like head with erect ears and a pointed snout.

TABLE 10. Summary statistics for the Dunsmore lithic assemblage.

LITHIC RAW MATERIALS

| Chipped Stone | n | % |
|---|-----|-------|
| Lower Gull River (Huronian) chert | 265 | 31.7 |
| Onondaga chert | 244 | 29.2 |
| unidentified chert | 133 | 15.9 |
| quartzite | 89 | 10.6 |
| Upper Bobcaygeon (Balsam Lake) chert | 82 | 9.8 |
| Lower/Middle Bobcaygeon & Upper Gull River (Trent Valley) chert | 10 | 1.2 |
| Manitoulin (Wike) chert | 10 | 1.2 |
| unidentified chipped stone | 4 | 0.5 |
| TOTAL | 837 | 100.1 |
| Ground Stone | | |
| amphibolite | 38 | 62.3 |
| granite | 14 | 23.0 |
| sandstone | 6 | 9.8 |
| slate | 1 | 1.6 |
| limestone | 1 | 1.6 |
| schist | 1 | 1.6 |
| TOTAL | 61 | 99.9 |

DEBITAGE & UTILIZED FLAKES

| Debitage Category | Not Utilized | | Utilized | | Subtotals | |
|---------------------|--------------|------|----------|------|-----------|-------|
| | n | % | n | % | n | % |
| Compression | 173 | 21.3 | 45 | 5.5 | 218 | 26.8 |
| Primary Reduction | 10 | 1.2 | 0 | 0.0 | 10 | 1.2 |
| Primary Thinning | 25 | 3.1 | 9 | 1.1 | 34 | 4.2 |
| Secondary Reduction | 11 | 1.4 | 7 | 0.9 | 18 | 2.3 |
| Secondary Thinning | 29 | 3.6 | 7 | 0.9 | 36 | 4.5 |
| Shatter | 315 | 38.7 | 22 | 2.7 | 337 | 41.4 |
| Bipolar Nucleus | 139 | 17.1 | 21 | 2.6 | 160 | 19.7 |
| TOTALS | 702 | 86.4 | 111 | 13.7 | 813 | 100.1 |

tively identified as a form of amphibolite that may not have been locally available. As with the chipped lithics, the ground stone assemblage seems to have been rather conservative (MacDonald and Pihl 1996: 96).

The worked bone industry was similarly limited. Items made from large mammal long bones are rare. Instead, the manufacture of both utilitarian and decorative artifacts relied upon

use of avian, dog, and rodent elements (Thomas 1996b: 97–110). This pattern is largely consistent with that noted at the slightly earlier Hubbert site (MacDonald and Williamson 2001: 62; Thomas 1996c: 133–165).

Subsistence Remains

Analysis of the plant remains recovered during the Dunsmore excavation revealed the full complement of domes-

ticated crops—maize (*Zea mays*), bean (*Phaseolus vulgaris*), cucurbit (*Cucurbita pepo*), sunflower (*Helianthus annuus*), and tobacco (*Nicotiana rustica*)—together with a diverse range of gathered wild plants, such as bramble (*Rubus* sp.) and several types of greens/grains that likely flourished along the margins of the settlement and its field clearings (Monckton 1996: 115–120).

Overall, the plant remains samples from longhouse, midden, and exterior activity area contexts exhibit different compositions in that the midden samples contain slightly more cultigens, while longhouse samples contain much higher quantities of fleshy fruits. As a subgroup, however, the contents of interior house features are variable—House 7 and Midden B together yielded 69% of the cultigens. Such variability agrees with findings on several other sites both in Simcoe County and elsewhere (Monckton 1992, 1994). Features in exterior activity areas contain considerably more fleshy fruit seeds than all the other samples combined. The use of plant remains for interpreting the seasonality of a site is hazardous if one relies on the simple presence of plant taxa, as plant food can easily be stored for winter consumption. Nevertheless, summer deposition for the contents of the exterior features based on their spatial context and plant remains composition remains a possibility (Monckton 1996: 120). In particular, the exterior pits located adjacent to the northwest end of House 7 would appear to have functioned as plant processing areas, as does a pit situated south of the south end of House 12 (Monckton 1996: 123).

The entire sample of faunal material recovered during the 1989 excavations (Table 11), which consisted of approximately 900 items (876 identified to an

analytically useful taxonomic level), was the subject of two analyses, carried out by Stephen Cox Thomas (1996a) and Suzanne Needs-Howarth (1999), respectively. Approximately 75% of the faunal assemblage was derived from interior house features. The material from Houses 1, 7, and 8 accounts for almost 70% of the analysable material.

Given that the Dunsmore site is located less than three kilometers from Little Lake, and less than five kilometers from Kempenfelt Bay, it is perhaps to be expected that fishing was an important subsistence pursuit. The faunal analysis demonstrates the importance of at least three fisheries (Needs-Howarth 1999: 35–39, 47; Thomas 1996a: 161). Longnose sucker (*Catostmus catostmus*), white sucker (*Catostmus commersoni*), walleye (*Stizostedion vitreum*), lake sturgeon (*Acipenser fulvescens*), and probably also perch (*Perca flavescens*) and pike (*Esox lucius*) were procured from watercourses and probably from shallow shoreline habitats during the critical spring spawning period, while smaller numbers of lake trout (*Salvelinus namaycush*), lake whitefish (*Coregonus clupeaformis*), and lake herring (*Coregonus artedii*) were probably taken from the inshore shoals of Lake Simcoe during the fall spawning period (Needs-Howarth 1999: 35–39, 47; Thomas 1996a: 138–146). Bullhead (*Ameiurus* sp.), sunfish (*Lepomis* sp.), bass (*Microterpus* sp.), perch, and pike were probably taken on an opportunistic basis from watercourses, wetlands, and shallow water lakeshore zones throughout the year (Needs-Howarth 1999: 35–39, 47; Thomas 1996a: 138–146). Needs-Howarth (1999) conducted a detailed analysis of all features that contained more than 10 fish elements. Such samples were limited to House 1 (one pit), House 7 (one semi-subterranean

TABLE 11. Summary of faunal specimens from the Dunsmore site.

| FISH ¹ | NISP | % | MAMMALS ² | NISP | % |
|--|------|------|--|------|-------|
| River Sturgeon (<i>Acipenser fulvescens</i>) | 4 | 0.6 | Snowshoe Hare (<i>Lepus americanus</i>) | 3 | 1.9 |
| Longnose Gar (<i>Lepisosteus osseus</i>) | 2 | 0.3 | Hare or Rabbit (Leporidae sp.) | 3 | 1.9 |
| Lake Trout (<i>Salvelinus namaycush</i>) | 4 | 0.6 | Grey Squirrel (<i>Sciurus carolinensis</i>) | 1 | 0.6 |
| Lake Herring (Cisco) (<i>Coregonus artedii</i>) | 1 | 0.2 | American Red Squirrel (<i>Tamiasciurus hudsonicus</i>) | 11 | 7 |
| Lake Whitefish (<i>Coregonus clupeaformis</i>) | 2 | 0.3 | Woodchuck (<i>Marmota monax</i>) | 14 | 8.9 |
| Coregonine sp. (<i>Coregonus</i> sp.) | 1 | 0.2 | Eastern Chipmunk (<i>Tamias striatus</i>) | 20 | 12.7 |
| Grass Pickerel (<i>Esox americanus</i>) | 7 | 1.1 | Northern or Southern Flying Squirrel (<i>Glaucomys</i> sp.) | 1 | 0.6 |
| Grass Pickerel/ small <i>Esox</i> | 2 | 0.3 | American Beaver (<i>Castor canadensis</i>) | 9 | 5.7 |
| Northern Pike (<i>Esox lucius</i>) | 47 | 7.4 | Mouse (<i>Peromyscus</i> sp.) | 4 | 2.5 |
| Northern Pike/Muskellunge | 2 | 0.3 | Muskrat (<i>Ondatra zibethicus</i>) | 33 | 20.9 |
| Chub sp. (<i>Semotilus</i> sp.) | 1 | 0.2 | Meadow Vole (<i>Microtus pennsylvanicus</i>) | 5 | 3.2 |
| Longnose Sucker (<i>Catostomus catostomus</i>) | 12 | 1.9 | Domestic Dog (<i>Canis familiaris</i>) | 34 | 21.5 |
| White Sucker (<i>Catostomus commersoni</i>) | 38 | 6 | Red Fox (<i>Vulpes vulpes</i>) | 2 | 1.3 |
| Sucker sp. (<i>Catostomus</i> sp.) | 21 | 3.3 | Canid, Small Dog to Fox-sized | 4 | 2.5 |
| Redhorse Sucker sp. (<i>Moxostoma</i> sp.) | 3 | 0.5 | American Black Bear (<i>Ursus americanus</i>) | 7 | 4.4 |
| Bullhead, Probably Black (<i>Ameiurus cf. melas</i>) | 1 | 0.2 | Raccoon (<i>Procyon lotor</i>) | 2 | 1.3 |
| Brown Bullhead (<i>Ameiurus nebulosus</i>) | 138 | 21.7 | American Marten, Probable (<i>Martes cf. americana</i>) | 1 | 0.6 |
| Brown or Yellow Bullhead (<i>Ameiurus nebulosus/natalis</i>) | 15 | 2.4 | Wapiti or American Elk (<i>Cervus elaphus</i>) | 1 | 0.6 |
| Channel Catfish (<i>Ictalurus punctatus</i>) | 5 | 0.8 | Virginia White-tailed Deer (<i>Odocoileus virginianus</i>) | 1 | 0.6 |
| Channel Catfish/Lg. Bullhead | 5 | 0.8 | Domestic Pig (<i>Sus scrofa</i>) | 1 | 0.6 |
| Burbot (<i>Lota lota</i>) | 3 | 0.5 | Mammal, Medium-sized | 2 | 1.3 |
| Rock Bass (<i>Ambloplites rupestris</i>) | 22 | 3.5 | TOTAL | 158 | 100.0 |
| Pumpkinseed (<i>Lepomis gibbosus</i>) | 59 | 9.3 | BIRDS³ | | |
| Bluegill (<i>Lepomis macrochirus</i>) | 3 | 0.5 | Common Loon (<i>Gavia immer</i>) | 1 | 1.3 |
| Sunfish sp. (<i>Lepomis</i> sp.) | 15 | 2.4 | Horned Grebe (<i>Podiceps auritus</i>) | 2 | 2.7 |
| Smallmouth Bass (<i>Micropterus dolomieu</i>) | 16 | 2.5 | Red-necked Grebe (<i>Podiceps grisegena</i>) | 1 | 1.3 |
| Largemouth Bass (<i>Micropterus salmoides</i>) | 9 | 1.4 | Canada Goose (<i>Branta canadensis</i>) | 4 | 5.3 |
| Bass sp. (<i>Micropterus</i> sp.) | 2 | 0.3 | Ring-necked Duck (<i>Aythya collaris</i>) | 2 | 2.7 |

| | | | | | |
|--|-----|-------|--|-----|-------|
| Crappie, Probably Black (<i>Pomoxis cf. nigromaculatus</i>) | 1 | 0.2 | Bufflehead (<i>Bucephala albeola</i>) | 13 | 17.3 |
| Crappie sp. (<i>Pomoxis</i> sp.) | 2 | 0.3 | Duck Subfamily (Anatinae) | 1 | 1.3 |
| Yellow Perch (<i>Perca flavescens</i>) | 177 | 27.9 | Northern Goshawk (<i>Accipiter gentilis</i>) | 1 | 1.3 |
| Walleye (<i>Stizostedion vitreum</i>) | 7 | 1.1 | Red-tailed Hawk (<i>Buteo jamaicensis</i>) | 1 | 1.3 |
| Walleye/Sauge r (<i>Stizostedion</i> sp.) | 7 | 1.1 | Ruffed Grouse (<i>Bonasa umbellus</i>) | 9 | 12 |
| TOTAL | 634 | 100.1 | Wild Turkey (<i>Meleagris gallopavo</i>) | 2 | 2.7 |
| AMPHIBIANS | | | Sandhill Crane (<i>Grus canadensis</i>) | 3 | 4 |
| Bullfrog (<i>Rana catesbeiana</i>) | 3 | 75 | American Coot (<i>Fulica americana</i>) | 1 | 1.3 |
| Frog sp. <i>Rana</i> (sp.) | 1 | 25 | Passenger Pigeon (<i>Ectopistes migratorius</i>) | 17 | 22.7 |
| TOTAL | 4 | 100.0 | Barred Owl (<i>Strix varia</i>) | 1 | 1.3 |
| TURTLES | | | Northern Saw-whet Owl (<i>Aegolius acadicus</i>) | 1 | 1.3 |
| Snapping Turtle (<i>Chelydra serpentina</i>) | 9 | 52.9 | Medium-sized Bird | 2 | 2.7 |
| Blanding's Turtle (<i>Emydoidea blandingi</i>) | 2 | 11.8 | Medium- to Large-sized Bird | 4 | 5.3 |
| Map Turtle (<i>Graptemys geographica</i>) | 1 | 5.9 | Large-sized Bird | 9 | 12 |
| Painted Turtle (<i>Chrysemys picta</i>) | 2 | 11.8 | TOTAL ⁴ | 75 | 99.8 |
| Probable Painted Turtle (Emyidae, cf. <i>Chrysemys picta</i>) | | | ZOOLOGICAL CLASS | | |
| Emydidae (Blandings/Painted) | 1 | 5.9 | Pelecypoda (Freshwater Mussels) | 8 | 0.9 |
| TOTAL | 2 | 11.8 | Osteichthyes (Bony Fishes) | 634 | 70.8 |
| MOLLUSCS | | | Aves (Birds) | 75 | 8.4 |
| Lady finger or Spike (Elliptio dilatata) | 3 | 37.5 | Mammalia (Mammals) | 158 | 17.6 |
| Fat mucket (<i>Lampsilis siliquoidea</i> / | | | Amphibia (Frogs) | 4 | 0.4 |
| <i>Lampsilis radiata siliquoidea</i>) | 3 | 37.5 | Reptilia (Turtles) | 17 | 1.9 |
| Unidentified Freshwater Mussel | 2 | 25.0 | TOTAL | 896 | 100.0 |
| TOTAL | 8 | 100.0 | | | |

¹ For clarity of presentation, probable identifications (such as *Catostomus* cf. *catostomus*, or sucker, probably Longnose) have been merged with positive identifications.

² Probable identifications (such as *Canis* cf. *familiaris*, or probable domestic dog) have been merged with positive identifications.

³ Probable identifications (such as *Branlia* cf. *canadensis*, or goose, probable Canada goose) have been merged with positive identifications.

⁴ Excluded from the mammal total is one intrusive pig element.

structure), and House 8 (two semi-subterranean structures). The House 1 occupation included consumption of the products of the spring spawning and fall deep-water net fisheries. House 7 included remains of the generalized warm weather fishery, and House 8 contained the remains of all three procurement types (Needs-Howarth 1999: 45–47).

Avian and mammalian prey, by contrast, were comparatively minor dietary contributors. Birds were the second most important class of game and are represented by a broad range of taxa (15 identified species) relative to the sample size (Thomas 1996a: 148). Over half of the avian species identified are upland game birds, such as ruffed grouse (*Bonasa umbellus*), wild turkey (*Meleagris gallopavo*), and passenger pigeon (*Ectopistes migratorius*). The latter are present in sufficient numbers to suggest procurement during the spring or fall migrations (Thomas 1996a: 148). The majority of the remaining identified specimens are from aquatic species, including bufflehead (*Bucephala albeola*), ring-necked duck (*Aythya collaris*), horned and red-necked grebes (*Podiceps auritus* and *P. grisegena*), and common loon (*Gavia immer*) (Thomas 1996a: 148).

Mammal exploitation was focussed upon small to medium-sized species that could be procured opportunistically from the clearings immediate surrounding the settlement (e.g., snowshoe hare [*Lepus americanus*], grey squirrel [*Sciurus carolinensis*], red squirrel [*Tamiasciurus hudsonicus*], eastern chipmunk [*Tamias striatus*], woodchuck [*Marmota monax*], and raccoon [*Procyon lotor*]), and to a lesser extent, from the closely adjacent riparian, marsh, and lakeside habitats (e.g., beaver [*Castor canadensis*] and muskrat [*Ondatra zibethicus*]) (Thomas 1996a: 151–152).

Domestic dog (*Canis familiaris*) comprises approximately one fifth of the mammal assemblage, and also appears to have been regarded as a useful source or raw material for bone tool manufacture (Thomas 1996a: 152, 1996b). The most potentially interesting aspect of the use of dog at the site is the presence, as previously noted, of the calcined remains of three or four individuals that were placed in an ash pit (Figure 7) located in the mid-point of House 7 (Thomas 1996a: 171–179). While it is possible that this deposit may represent food remains, these elements appear to comprise a deliberate cremation burial.

Large mammals are almost entirely absent from the site. Only a single white-tailed deer (*Odocoileus virginianus*) element was identified. The few black bear (*Ursus americanus*) elements that are present are all distal appendiculars and therefore are probably derived from skins as opposed to representing subsistence debris (Thomas 1996a: 153). The lack of deer is consistent not only with the pattern noted in the 17th century (Heidenreich 1971: 206–207; Tooker 1964: 65; Trigger 1976: 132–133), but also with data recovered from numerous other Simcoe County sites from as early as the late 13th century (Lennox *et al.* 1986; Needs-Howarth and Sutton 1993; Thomas 1996c: 130), suggesting that it is unlikely that Huronia ever supported substantial deer populations, a situation that would have necessitated alternative means by which to secure hides and industrial material (Robertson *et al.* 1995: 77–80).

INTERPRETING SETTLEMENT CHANGE AND COMMUNITY TRANSFORMATION

Despite the estimated mid- to late-15th-century date for Dunsmore, the

settlement—with respect to the distribution of structure types within the occupation area, and their overall heterogeneity in form—does not entirely conform to the pattern expected for a later 15th century Iroquoian “village” in the generally accepted sense of the term. Instead, the settlement pattern, artifact assemblage, and subsistence data suggest that the Dunsmore settlement had a complex history—one that involved both seasonal tenancies and year-round occupation, either concomitantly or over a significant span of time. While there are scant settlement data with which to examine the temporal relationships of the various houses, it is unlikely that all of the houses were constructed simultaneously, given the evidence for extensions, contractions, superimposition of walls over exterior features, and numerous episodes of wall re-use, repair, and rebuilding among the structures interpreted as year-round or permanent dwellings. The feature densities, at least within the larger houses, as well as the substantial nature of the midden deposits, also argue for long-term occupation.

Intrasite Analysis: Establishing the Occupational Sequence

On the basis of the spatial associations of the various houses, several possibilities may be proposed concerning their contemporaneity and sequencing. Although ceramics were unevenly discarded within the various features in the houses, an analysis of their comparative frequencies offers the best opportunity to evaluate these possibilities. While ceramic mends between houses and/or their associated middens would have proven most useful in this regard, the only vessel mends proved to be between nearby features within houses. For the purposes of comparison then, the same chronologically

sensitive classes of types used, in part, to compare regional sites, were employed. The individual attribute data were not used, as they are thought to be most useful for comparing entire assemblages from sites spanning the 14th and 15th centuries. Table 12 provides a breakdown of ceramic type frequencies for all houses and middens on the site, as well as for a number of exterior house features. While not all of the houses yielded large enough samples to seriate, it is worth noting that House 8 yielded the highest frequencies of Early, Middle, and Necked vessels and that overall, Houses 10 and 1 appear to postdate Houses 7 and 8 and Middens B and C. These observations remain consistent in all of the evaluations of the house sequence scenarios that are explored.

The first occupation sequence hypothesis is that there was a difference between the eastern and western clusters of houses (Figure 18A), defined by a north-south line drawn approximately through the centre of House 13. While House 13 might have been attributed to the eastern settlement component based upon its greater proximity to House 7 than to any other structure, and to the fact that it was located within the poorly defined fence(s) that may have demarcated the western and eastern settlement clusters, the one Necked vessel from this house was, nevertheless, not included in this or any of the other analyses. Table 13 illustrates that there are no substantial differences between the hypothesized eastern and western components in the frequencies of the ceramic types. It is therefore unlikely that the sequential occupation of the community occurred in that fashion.

Another possibility is that there were three occupation components defined on the basis of spatial clusters of houses. Houses 1, 2, 3, 4, 5, and 16, along with

TABLE 12. Ceramic type contributions from houses and associated exterior activity areas expressed as percentages.

| Provenience Unit And Number of Vessels | CERAMIC TYPE | | | | |
|--|--------------|--------|--------|---------------|---------|
| | Early | Middle | Necked | High Collared | Incised |
| House 1 (n=44) | 7 | 11 | 20 | 7 | 50 |
| House 4 (n=3) | 0 | 0 | 33 | 0 | 67 |
| "House" 6 (n=1) | 0 | 0 | 0 | 0 | 100 |
| House 7 (n=38) | 3 | 5 | 35 | 16 | 16 |
| House 8 (n=29) | 10 | 10 | 34 | 3 | 63 |
| House 9 (n=1) | 0 | 0 | 100 | 0 | 0 |
| House 10 (n=26) | 4 | 0 | 21 | 8 | 63 |
| House 12 (n=3) | 33 | 0 | 0 | 0 | 66 |
| House 13 (n=1) | 0 | 0 | 100 | 0 | 0 |
| House 15 (n=3) | 33 | 0 | 0 | 0 | 33 |
| House 16 (n=1) | 0 | 0 | 0 | 0 | 100 |
| West Area Exterior (n=7) | 14 | 14 | 14 | 14 | 43 |
| Central Area Exterior (n=1) | 0 | 0 | 100 | 0 | 0 |
| Midden A (n=7) | 0 | 14 | 43 | 0 | 43 |
| Midden B (n=14) | 0 | 21 | 36 | 14 | 21 |
| Midden C (n=34) | 3 | 3 | 47 | 9 | 35 |
| | | | | | 3 |

TABLE 13. Comparison of ceramic type contributions from houses and exterior activity areas from the eastern and western halves of the site (Figure 18A), units expressed as percentages.

| | Eastern Occupation Sector (n = 112) | Western Occupation Sector (n = 98) |
|---------------|-------------------------------------|------------------------------------|
| Early | 4 | 7 |
| Middle | 10 | 4 |
| Necked | 29 | 32 |
| High Collared | 10 | 7 |
| Incised | 43 | 47 |
| Other | 4 | 3 |

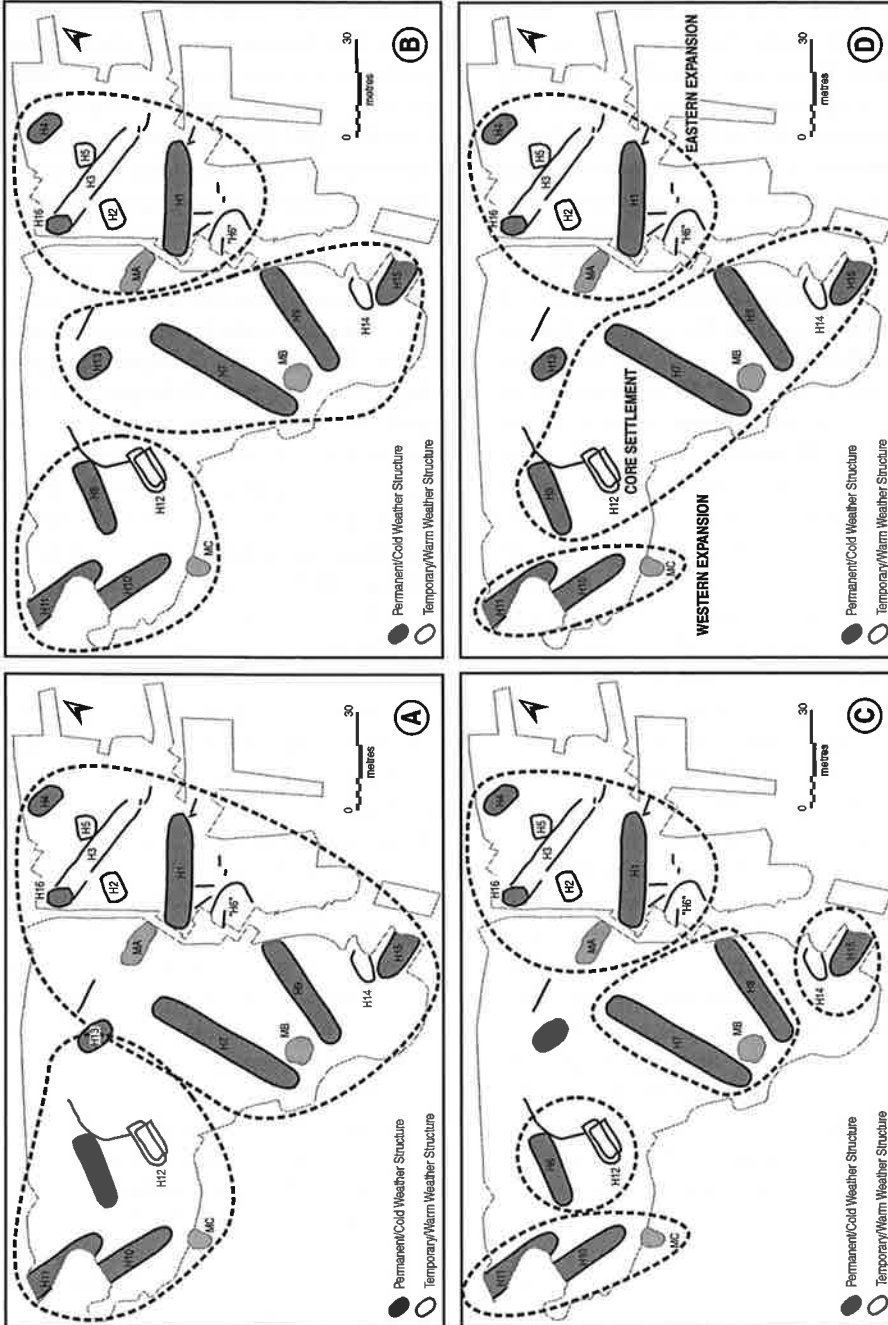


FIGURE 18. The various spatial clusters examined during the intrasite analysis of chronologically sensitive ceramic types. Based on the distribution of ceramic types, Option D is the most likely scenario for the development of the settlement.

the poorly defined "House 6" and Midden A, might be identified within a northeastern component (Figure 18B). In general, these houses were widely separated from one another, creating extensive open areas, some of which may have been further defined through the construction of short lengths of fencing. The northernmost structures appear to have been somewhat more densely laid out. Although parallels may be found in the archaeological record for each of these buildings, with the possible exception of House 1, all could probably be judged to be "atypical" in certain aspects of size, form, or content. Three of the structures (Houses 1, 4, and 16) may have been capable of serving as winter or permanent residences. A south-central component (Figure 18B) may have incorporated Houses 7 and 9, both of which appear to have represented the year-round residences of comparatively large households, together with at least two other smaller structures and Midden B. One of these smaller structures (House 14) was probably occupied on a seasonal basis, or fulfilled a specialized role, while the other (House 15) may have been occupied throughout the year. The fence lying to the north of House 13 may represent the northern extent of the component, while its western boundary may have been demarcated by the curving line of posts that either joined or passed through the areas occupied by the ends of Houses 8 and 12. Four structures, together with the substantial refuse deposits on the slope (Midden C), might have constituted a western component of the site (Figure 18B). Within the excavated portion of this hypothesized component, Houses 8 and 12 and Houses 10 and 11 form two aligned pairs while the intervening exterior areas between

the structures witnessed a considerable degree of activity.

Table 14 provides a breakdown of ceramic type frequencies for these three hypothesized site sectors. There is some suggestion, on the basis of frequencies for Necked and Incised vessels, that the northeastern section postdates the other two sectors, both of which appear to have vessels dating to throughout the occupation of the site. The western sector, principally House 8, has the earliest vessels.

In order to investigate these trends in more detail, a third sequential possibility was examined. This involved the hypothesis that pairs of houses constituted the foci of sequential occupations (Figure 18C). A comparison of the main pairs of houses and associated middens and exterior features (Table 15) yielded additional evidence for the succession of Houses 8, 12, 7, and 9 by Houses 1, 3/16, 5, and 10, with House 10 and Midden C representing the latest area of the site to be occupied. Again, however, all of the areas seem to have been settled for the most of the period during which the site was occupied.

This sequencing was further refined by comparing Houses 7, 8, and Midden B with the House 1–Midden A and House 10–Midden C areas (Table 16). The results of this comparison yielded a fourth and favoured hypothesized sequence (Figure 18D), consisting of the first occupation of the site involving the construction of those houses oriented in a roughly north-south parallel arrangement in the centre of the settlement area (Houses 8, 12, 7, 9, and perhaps 14 and 15, along with the use of Midden B). This was followed by the development of the northeastern cluster and then by the construction of Houses 10 and 11, with their associated Midden C on the western edge

TABLE 14. Comparison of ceramic type contributions from houses and exterior activity areas from the hypothesized southcentral, northeastern and western zones (Figure 18B), units expressed as percentages.

| | South Central Occupation Sector (n = 56) | Western Occupation Sector (n = 63) | Northeastern Occupation Sector (n = 56) |
|---------------|---|---------------------------------------|--|
| Early | 3 | 7 | 4 |
| Middle | 11 | 4 | 10 |
| Necked | 34 | 33 | 23 |
| Incised | 34 | 46 | 52 |
| High Collared | 14 | 7 | 6 |
| Other | 3 | 3 | 4 |

TABLE 15. Comparison of ceramic type contributions from house pairs and associated exterior activity areas (Figure 18C), units expressed as percentages.

| | Houses 8 and 12 (n = 32) | Houses 7, 9 and Midden B (n = 52) | Houses 1, 16 and Midden A (n = 52) | House 10, West Area Features and Midden C (n = 66) |
|---------------|-----------------------------|--------------------------------------|---------------------------------------|---|
| Early | 13 | 2 | 6 | 5 |
| Middle | 9 | 9 | 11 | 2 |
| Necked | 31 | 36 | 23 | 34 |
| Incised | 40 | 36 | 50 | 47 |
| High Collared | 3 | 15 | 6 | 9 |
| Other | 4 | 2 | 4 | 3 |

TABLE 16. Comparison of ceramic type contributions from house clusters and associated exterior activity areas (Figure 18D), units expressed as percentages.

| | Houses 7, 8, and Midden B (n=80) | House 1 and Midden A (n=51) | House 10 and Midden C (n=60) |
|---------------|-------------------------------------|--------------------------------|---------------------------------|
| Early | 5 | 6 | 3 |
| Middle | 10 | 11 | 2 |
| Necked | 35 | 23 | 36 |
| Incised | 36 | 49 | 47 |
| High Collared | 11 | 6 | 9 |
| Other | 3 | 5 | 3 |

TABLE 17: Comparison of chert raw materials from the hypothesized settlement components (Figure 18D).

| | Huronian n/% | Onondaga n/% | Unidentified n/% | Quartzite n/% | Balsam Lake n/% | Trent Valley n/% | Wike n/% | Total n/% |
|-------------------------------------|-----------------|-----------------|---------------------|------------------|--------------------|---------------------|-------------|--------------|
| Houses 7, 8, 9, 12, 15 and Midden B | 102/29 | 111/32 | 54/15 | 38/11 | 37/11 | 3/1 | 4/1 | 349/100 |
| Houses 1, 4, 6 and Midden A | 75/32 | 65/28 | 39/17 | 26/11 | 22/9 | 6/3 | 0/0 | 233/100 |
| Houses 11, 10 and Midden C | 48/35 | 40/29 | 22/16 | 11/8 | 12/9 | 3/2 | 1/1 | 137/100 |

of the site. The central cluster continued to be occupied during these expansions to the settlement. Despite uncertainties as to the place of House 13 within the evolution of the settlement, given its comparative spatial isolation and small artifact assemblage, it appears to postdate warm-weather exterior activity associated with the occupation of House 7. Given the general robustness of its construction and internal layout, a cold-weather or protracted tenancy cannot be ruled out.

The plausibility of this general interpretation of the settlement's development was further examined in light of the distribution of lithic materials. While it was hoped that there might be significant differences between the sectors of the site and the raw materials used by their occupants, there were not (Table 17). A similar review of the distribution of worked bone also failed to shed any additional light on the matter.

Development and Change Within the Settlement

The initial settlement cluster represents comparatively permanent residence patterns. Four of the six structures in this sector (Houses 7, 8, 9, and 15 [if it is included]) are likely to have been occupied on a year-round basis. House 14 appears to have been temporary or warm-weather shelter. House 12 is also interpreted as having had a more short-term function, albeit one that was repeated. It is possible that one or both of these temporary structures may represent shelter for the work party responsible for the initial clearing of the site and its fields and the collection of suitable building material for the larger houses.

Expansion of the settlement to the northeast may have entailed the construction of as many as seven structures, three of which (Houses 1, 4, and 16)

may have been capable of serving as winter or permanent residences, while three (Houses 2, 3, and 5) appear to have been used only on a seasonal or temporary basis or for purposes that left no settlement pattern signature. Unfortunately, the exact processes lying behind the occupation of this portion of the site remain unclear. Houses 4 and 16 were quite small, while House 1 appears to have undergone a contraction in length over time. The timing of the use of temporary structures (Houses 2, 3, and 5) relative to Houses 1, 4, and 16 remains unknown. The construction of House 3 may have incorporated structural elements of House 16, in which case a significant change in household composition, or perceived needs regarding the allocation of space must have occurred.

Both structures associated with the western expansion (Houses 10 and 11) appear to represent year-round occupations. Whether the two structures represent a single construction event or were built concurrent with the northeastern settlement expansion, is unknown.

Variability Among the Households

The outstanding feature of the Dunsmore settlement is its diversity of house forms and, presumably, the character of constituent households. Even the basic distinction between those structures that are believed capable of supporting full-time occupations and those that are not is one that still subsumes considerable variation in house size. For the Middle Iroquoian period, for example, it has been noted that the sample of documented longhouses dating to the latter half of the 14th century range from 12 to 45 m in length (Dodd *et al.* 1990: 352). Three of the 10 Dunsmore structures interpreted as year-round structures fall below this size range, and

could have provided shelter only to small groups of people. The potential identity of occupants of such structures is also an intriguing question if one assumes that by the end of the Middle Iroquoian period the residence patterns of the growing kinship units had become more cohesive and formalized, with individual longhouses representing individual lineages or clan groups (e.g., Pearce 1984: 303–304; Warrick 1984: 66, 2000: 440; Wright 1986: 63). These small houses may therefore reflect the results of household fissioning, the incorporation of new families within the community, or simply a continuation of the more fluid economic and residential patterns of earlier times (Williamson 1990: 318–319; Williamson and Robertson 1994: 36).

It is also possible that some of the smaller Dunsmore cabins reflect an Algonquian presence at the site. By the historic period at least, groups of Algonquians frequently passed the winter months in Huron villages (Tooker 1964: 25; Trigger 1976: 166–168). Interaction between the Iroquoians of Simcoe County and their neighbours to the north appears to have been well developed from the earliest phases of agricultural settlement in the region (Trigger 1976: 170–171; Warrick 1990: 350–352; Wright 1966: 41), and it seems unlikely that the initial Iroquoian occupations were not preceded by a lengthy process of communication and negotiation between the Iroquoian communities of the Lake Ontario drainage basin and Algonquians of the southern Georgian Bay area (Sutton 1996a: 232–233) and that these relationships did not continue through the subsequent centuries.

In a consideration of a small sample of “cabins” from Ontario Iroquoian sites, Mima Kapches (1984: 64) wisely cautioned against simplistic interpretations

of such anomalous structures as indicators of an Algonquian presence, pointing out that the ethnographic records also make reference to the Huron building temporary shelters in the Algonquian manner. This is an important consideration. More worrisome, however, is that under some circumstances, Algonquians may have been equally likely to build houses in the Iroquoian manner. Lisa Rankin (2000) has recently concluded that the Nodwell site, located in southern Bruce County, was an extremely long-term settlement on the part of local foraging populations carrying out only minimal horticultural pursuits, rather than the product of a brief-lived Middle Iroquoian expansion into the Bruce Peninsula (Wright 1974). The Nodwell settlement patterns, in terms of both community layout and individual house plans, fall well within the range of variability seen on Middle Iroquoian sites throughout southern Ontario (Robertson and Williamson 2002), but if Rankin (2000) is correct, the site was more likely occupied by ancestors of the Algonquian-speaking groups, who were collectively referred to as the *Cheveux Relevés* in the 17th century, rather than by ancestors of the Huron.

Kapches (1984: 64–65) further warned that, “diagnostic materials must be found *in situ* to allow for the assertion that [a particular structure was used]...by Iroquoian peoples or by other non-Iroquoians.” This proviso raises additional problems, however, as it assumes that such ethnic distinctions are readily identifiable in the material culture of these two groups and thus runs counter to the growing recognition that the Iroquoian- and Algonquian-speakers at the interface between southern Ontario and the Canadian Shield shared many traits of material culture. Both appear to have participated in a tradition of ceramic

vessel manufacture that enjoyed comparatively widespread currency throughout much of the Northeast (e.g., Dawson 1979: 26–27; Fox 1990: 463; von Gernet 1992: 122–123, 1993: 77). Indeed, it appears more likely that the political and social circumstances that prevailed during the contact period resulted in the creation of an artificial dichotomy between “Iroquoian” and “Algonquian” language-speakers (Moreau *et al.* 1991: 58), a dichotomy that in Ontario became fossilized along the lines of agriculturalists and foragers, despite evidence to the contrary. Where environmental conditions permitted in the Great Lakes, some Algonquian groups certainly did practice maize horticulture (Fox 1990: 471; Murphy and Ferris 1990: 263).

Given these considerations, the archaeological evidence for interaction between groups within Simcoe County remains elusive, and may only be seen in subtle ways, if we recognize that material culture and language are not necessarily correlates. While the small quantities of analyzable artifacts recovered from the small or short-term Dunsmore structures do not differ from the material found elsewhere on the site, the possibility that some of these permanent/cold weather dwellings may indicate an Algonquian presence at the site should not be ruled out, even if it cannot be demonstrated (*cf.* Lennox 2000: 164–165; Robertson *et al.* 1995: 50–51).

The small structures interpreted as temporary or warm-weather shelters, on the other hand, may represent intermittent occupations on the part of small task groups from elsewhere. The two faunal analyses conducted by Thomas (1996a) and Needs-Howarth (1999) clearly indicate that fishing was of paramount importance to the subsistence regime of the Dunsmore community, as it was at

other sites in the region. Although the vast majority of the faunal material recovered from Dunsmore is derived from the large, intensively occupied houses, it remains possible that some of the poorly dated smaller, seasonal structures may represent the first, temporary occupation of the site as a base camp for fishing parties from other local settlements. Alternatively, they may reflect the arrival of additional people to an established year-round settlement, who used it as a base for their own fishing activities. Such seasonal visits, whether arranged through kinship ties or other forms of negotiation, may have been one of the means by which the process of community amalgamation—supposedly one of the hallmarks of the 15th century—proceeded.

It would seem, however, that the growth of large communities in southern Simcoe County did not share precisely the same timing or trajectory as that experienced by populations that continued to live closer to the north shore of Lake Ontario. South of the Oak Ridges Moraine, heavily defended, densely occupied and seemingly more formally structured settlements, such as Draper and Parsons, which were roughly contemporary with Dunsmore, were appearing by the 1450s (e.g., Finlayson 1985; Robertson and Williamson 1998), perhaps as a consequence of the emergence of more rigidly structured local tribal systems that defined themselves in opposition to one another with a concomitant heightening of tensions. On the basis of the evidence available from Dunsmore, it would seem that the communities of southern Simcoe County were not yet undergoing such changes to the same extent as their southern kin. The Dunsmore community was not laid out in a markedly formal manner. Furthermore, the houses were widely dispersed

throughout the occupation area, forming broad open spaces, some of which appear to have been utilized for a variety of outdoor activities, while others seem to have been less extensively used. The organization of the settlement stands in marked contrast to compact and well-ordered villages such as Parsons and Draper. Likewise, Dunsmore was not enclosed by a palisade. This may simply indicate that its occupants were on peaceful terms with their neighbours, but palisades also fulfilled important monumental and symbolic functions, embodying the distinction between those who were members of the community and those who were not. Indeed, as community membership became increasingly structured through time, so too may these types of community boundaries become more formalised and imposingly expressive (Ramsden 1990b: 170–172). Whether large southern Simcoe County sites such as Roof and Cleary, which have been interpreted as the product of late-15th-century community amalgamations (e.g., Warrick and Molnar 1986), will yield evidence of patterns similar to those at Draper and Parsons a generation or two earlier remains to be seen. All that can be said at present is that the layout of the early 17th-century Molson site, the latest settlement currently known in southern Simcoe County (Lennox 2000), appears to resemble its antecedents of 150 years, such as Dunsmore, more than it differs from them. Yet there are indications at Dunsmore that some of the mechanisms by which larger, more fully integrated communities were to be established were in place.

The notion that sweat lodges were used as vehicles for promoting social integration is long established (*cf.* Kapches 1995: 90; MacDonald 1988: 18; Trigger 1969: 99–100; Tyyska 1972). Six of the

ten permanent structures and two of the five temporary shelters contained at least one of the semi-subterranean structures that represent communal sweat lodges. These occur with greatest frequency in the core settlement area, where 12 are distributed among the six houses, both temporary and permanent. House 13 in the central area also contained one. The permanent houses in the western expansion area each contain two, while House 1, the largest of the year-round dwellings in the northeast expansion area, contains six semi-subterranean features. The use of semi-subterranean structures as communal sweat baths likely served to strengthen community relationships by providing venues—during any of the social or ritual events that may have required their use—for men to host their village kinsmen, as well as visiting members of their wider social network, possibly including Algonquian trading and hunting partners (MacDonald and Williamson 2001: 66–68). These may have been critical activities if the community was growing or undergoing changes in composition on a seasonal basis, as is suggested by the settlement patterns. Likewise, the cremation burial of at least three dogs in House 7 may represent the vestiges of an important community ceremony. Dog ceremonialism was a notable practice among both the Huron and Iroquois (Tooker 1964: 90, 93 *ff.*; 1970: 88 *ff.*; Trigger 1969: 96) and their Algonquian-speaking neighbours (Brizinski and Savage 1983; Gordon 1994: 130; Prevec 1987), and likely served as a common “ritual language” in the negotiation of the social and political relations of exchange or contact between different groups (Smith 2000).

Even if the early to mid-15th-century Barrie area communities were not yet experiencing socio-political change on

the same scale or in precisely the same manner as was occurring at the same time further south, they may have felt their effects. The lack of deer remains on the southern Simcoe County sites suggest that large-scale deer hunting expeditions to areas south of the Oak Ridges Moraine, or to southern Victoria County—where it is thought that the post-contact Huron conducted deer drives (Heidenreich 1971: 207)—were not carried out. Likewise, the paucity of high quality Onondaga chert on Simcoe County sites may indicate that access to York County south of the Oak Ridges Moraine was restricted. Onondaga chert predominates on York County sites, even though these are also located considerable distances from the primary source areas. Even though the Barrie area groups could probably still trace their descent to the communities of York County, and would eventually be joined by them, these connections do not seem to have included substantial trade in toolstone. The solution to the critical lack of local sources of hides for clothing appears to have been through trade with northern Algonquian groups in relationships that likely developed from the time of the earliest Iroquoian settlement of Simcoe County, but which appears to have intensified through time, and has even been suggested as a causal factor in the northward shift in Iroquoian settlement after circa AD 1450 (Trigger 1976: 166–174; Warrick 1990: 372).

CONCLUSIONS

As more and more Middle to Late Iroquoian settlements are excavated throughout southern Ontario, they will continue to pose challenges to the normative idea of the “village.” Each site will reveal unique characteristics that are consequence of the unique circumstances under which its occupants

found themselves. Only when we move away from the belief that the settlements we excavate represent single moments in time, or that any one factor is likely to be responsible for the general trends that we see in the 14th and 15th centuries, will we be able to appreciate the multiplicity of cultural practices and developmental trajectories that Middle and Late Iroquoian communities experienced. The differences between sites during this time, in terms of settlement patterns, economic systems and material culture, suggest that no two communities—whether in southern Simcoe County or elsewhere in southern Ontario—were on the same developmental track. While these observations do not dramatically alter the central tenants of the broad cultural-historical outlines of Late Woodland period that have been developed over the past 20 years, they serve as a reminder of the fact that the cultural realities of the Late Woodland were complex, variable, and rooted in long-term historical processes. The challenge remains to fully investigate this diversity as we continue to examine the long-term regional developments that ultimately led to the formation of the Huron, Petun, and Neutral confederacies of the 17th century.

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