

Mourning, Curing, Feasting or Industry? The Interpretation of the Quinte and Perch Lake Mounds*

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The Middle Woodland burnt stone mounds of Prince Edward County, Ontario, and Jefferson County, New York, form an unusual class of monuments that have defied satisfactory interpretation. They have been identified variously as “burial mounds”, “hut rings”, “sweat lodges”, and the remains of “fire rituals”. Some of this confusion may be attributed to the fact that few of these sites have been examined in great detail. More important, however, is the manner in which these interpretations have been formulated, as they have tended to rely on superficial similarities with other feature types and poorly developed analogy. Through consideration of sites that more closely resemble the burnt stone mounds of the eastern Lake Ontario basin, it is suggested that these mounds are more likely to be the remains of seasonally occupied large-scale cooking or food processing sites, although it is possible that in some cases they also acquired symbolic significance within the subsistence-settlement systems of local communities.

In what must be among the earliest published accounts of archaeological excavations undertaken in the province of Ontario—if not Canada—Thomas Wallbridge (1860) provided a summary of the results of trenching through at least five examples of a distinct class of late Middle Woodland mounds found along the shores of the Bay of Quinte. Wallbridge was both intrigued by these unusual features—of which he estimated there were about 100 in Prince Edward County—and frustrated by the apparent sparseness of artifacts or burials to be found within them. Surely these mounds were related to the “barrows or tumuli described by American Antiquarians” (Wallbridge 1860:410), which upon exploration had routinely yielded spectacular finds, pointing to the former existence in North America of a “civilized” race that was subsequently possessed by lesser peoples (Wallbridge 1860:414, 417). Nevertheless, most of the Quinte mounds that were opened were found to be annular piles of fire-cracked rock, charcoal and ashy soil that were otherwise devoid of any clues as to their makers’ identities or intentions (Wallbridge 1860:412-413).

Ultimately, however, Wallbridge’s persistence bore fruit with the discovery of burials and other “objects of curiosity and art” in one mound.

A few years earlier, and across the eastern end of Lake Ontario, Franklin Hough provided a passing reference to perhaps “half a dozen” similar “barrows or tumuli” near the town of Pamela in the Perch Lake region of Jefferson County, New York (Hough 1851:106-107). By the turn of the nineteenth century, further explorations had increased the number of mounds in the Perch Lake area to approximately 200. D.S. Marvin—on the basis of his own observations, the often conflicting accounts of several other turn-of-the-century investigators and the accounts of other antiquarians in the eastern states—developed the argument that these sites were “hut rings” or “camp bottoms” marking the remains of abandoned lodges (Marvin 1887:59-60). This view was soon taken up by William Beauchamp (1887:113; 1905:7; Beauchamp 1894:542; Marvin 1887:59-60), who, at first, was probably less directly familiar with the features, but achieved greater influence as one of Cyrus

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Thomas' Mound Survey agents in New York (Julianne Van Nest, personal communication 2002).

A lengthy period was to pass before another archaeologist took a concerted interest in these curious features. Throughout the late 1920s and 1930s, William Ritchie visited a number of the Perch Lake mounds, excavating trenches through several of them (Ritchie 1944:313-318). Ritchie's first inclination was to accept the idea that these features represented domestic sites (Ritchie 1944:317), yet the lack of typical household waste at the sites he had investigated was as puzzling to him as it had been to Beauchamp. While he suggested that they may have served as sweat lodges (Ritchie 1944:316), he was on the whole left with the impression that "some unfathomable ceremonialism lay behind the construction of...the Perch Lake structures" (Ritchie 1944:318), a conclusion that he did not alter substantially in subsequent years (e.g., Ritchie 1949, 1950, 1969).

In the thirty years that have elapsed since Ritchie's last writings concerning the burnt stone mounds (the Quinte mound burials are only mentioned in passing in his *Archaeology of New York State* [Ritchie 1980:235], while the Perch Lake mounds are not discussed at all—a reflection perhaps of his frustration with their intractable character), there has been little effort to investigate these monuments¹ nor, apparently, has any serious attention been devoted to their interpretation. When discussed in broad cultural-historical syntheses of the archaeology of the region, the descriptions of these features reproduce the words of Wallbridge—or of David Boyle, who was his earliest commentator (1897:90)—verbatim,² or tend to skirt their distinctive attributes by lumping them with other monuments that are better documented, and seem to fit more comfortably within the archaeological record of the Middle Woodland in the eastern Lake Ontario basin (e.g., Funk 1983:340; Spence et al. 1990:166). While admittedly handicapped by a lack of much detailed information on these sites, each attempt to account for them has relied on poorly developed analogy with other types of monuments or features thought to be culturally or temporally

related. In the one instance among contemporary writers where a specific functional interpretation is offered (Wright 1999:680), it has been shaped more by debates about another type of feature found in the Northeast—the semi-subterranean structure—or by ethnohistoric and ethnographic accounts of sweat lodges and their attendant ritual, than by consideration of the Quinte or Perch Lake mounds themselves.

This sort of interpretation is, of course, exceedingly common in archaeology. Indeed, it may be argued that all interpretation, whether couched in functionalist, processualist, or post-modernist terms, proceeds on the basis of analogical reasoning (e.g., Wylie 1985; von Gernet 1993). The key, however, to developing interpretations that are plausible and compelling in light of the available evidence is to ensure that the analogues one chooses are appropriate, in that they fit the observed phenomenon that is the subject of investigation. Both the similarities and the differences between subject and analogue in term of form and context must be taken into consideration.

If we look beyond the Northeast, we will find that there may be more appropriate analogues for the interpretation of the Quinte and Perch Lake mounds than have been considered to date. These are to be found as far afield as Texas, and Atlantic Europe. The interpretation of burnt stone mounds in these different regions has been the subject of considerable discussion as well. Researchers in these areas have sought even farther afield for analogues and have contested interpretations that have been predominant for decades. By a curious coincidence, these debates have taken place more or less simultaneously, but each has been rehearsed with little awareness that others are grappling with very similar questions. In pursuing the question of the character and functions of the Quinte and Perch Lake burnt stone mounds, it must be emphasized that the intention here is not to disparage those who have given their consideration to these features, rather it is to examine the contexts in which their thoughts were formulated, which in turn influenced judgements concerning the appropriateness of interpretative analogues, and to highlight the need for renewed investigation of these sites.³

The Quinte and Perch Lake Mounds: Form, Structure and Interpretation

The Investigations

The descriptions of the Quinte and Perch Lake mounds offered by Wallbridge (1860), Marvin (1887) and Beauchamp (1905) remain the most apt summaries of the essential character of these features, since, with the exception of Ritchie's sporadic investigations, little attention has been devoted to them for the past century. A search of sites in Prince Edward County registered in the archaeological database maintained by the Ontario Ministry of Culture, for instance, revealed only one site record for a feature that is undoubtedly a burnt stone mound: apparently one of those excavated by Wallbridge in 1859. This site clearly was registered on the basis of his report alone. It is unclear whether any of these features survive in the Quinte area, given that less than 40 years after Wallbridge's work "few, if any traces of the mounds" were said to be evident (Boyle 1897:90). Survey in Prince Edward County in the late 1960s failed to document any burnt stone mounds (Hakas 1967); either they all had been destroyed by this time, or they simply were not recognized. Given their supposed ubiquity, the latter seems more likely. In light of this general neglect, any authors who have discussed these features in recent years have been forced to rely heavily on the early texts for details concerning the form of the mounds and as starting points for their interpretation.

Wallbridge indicated that the Quinte mounds in Prince Edward County extended from Rednerville, in Ameliasburg Township, easterly along the shore of the narrows between Prince Edward and Hastings counties, to Massasauga Point at the east end of the Bay of Quinte (Figure 1). He estimated that approximately 100 mounds were located within this area, as well as on some of the nearby islands. Other examples were thought to be found along the Trent River as well (Wallbridge 1860:411).

Prince Edward County constitutes a peninsula formed by a Lindsay Formation limestone plain that extends into the eastern part of Lake Ontario. Throughout the majority of the region,

soils are generally shallow and unconsolidated, although along the north shore of the peninsula, in the Ameliasburg area, deeper loam and clay loam tills occur. Precambrian exposures are limited to a small hill of granite near Ameliasburg (Chapman and Putnam 1984:188). Today the limestone plains of the region, with their alkaline soils, support stands of maple (*Acer* sp.), beech (*Fagus grandifolia*), hemlock (*Tsuga canadensis*), elm (*Ulmus americana*), and basswood (*Tilia americana*) in areas of deeper soils, while rock barrens, or upland areas of shallow soils, support mixed forests of dry-adapted taxa such as pine (*Pinus strobus*) and red oak (*Quercus rubra*), white ash (*Fraxinus americana*), maple, and eastern white cedar (*Thuja occidentalis*) (Burgar 1993). Wetlands and swamps occupy the many shallow depressions on the rock plains, while marshes border the shoreline and lagoons of the bay and the river channels that drain into it (Chapman and Putnam 1984:189). These wetter sites tend to be dominated by hemlock, yellow birch (*Betula lutea*), black ash (*Fraxinus nigra*), white elm (*Ulmus americana*), and eastern white cedar, with pioneering species of white spruce (*Picea glauca*) and balsam fir (*Abies balsamea*) (Burger 1993). Although there have been fluctuations in forest composition due to climatic change and regional processes of forest succession, this northern mixed hardwood forest likely prevailed in the region from circa 4,000 B.C. until the land clearances of the nineteenth century (cf. Lovis and MacDonald 1999:145).

In New York, Marvin (1887:58) estimated that there were over 200 mounds, and Beauchamp (1905) reported upon 54 of these features and the sites of six others, which had been destroyed. These were found primarily along the bluffs to the north and east of, and overlooking, Perch Lake and on Linnell's Island, a broad, low promontory within extensive swamps and bogs lying to the south and southwest of the lake (Figure 2). Perch Lake sits at the foot of a series of terraces cut into the limestone, dolomite and sandstone bedrock that is mantled by shallow, poorly drained, heavy clays (Ritchie 1969:1). The local physiography, vegetation pattern, and drainage regime, at a gross scale, is,



Figure 1. *The location of the Quinte and Perch Lake mounds, together with the better known burial mounds of Rice Lake and the Trent River valley.*

therefore, broadly similar to that found in Prince Edward County.

The distributions of these features within the Quinte and Perch Lake areas are not particularly well documented in the early accounts, nor have later treatments served to clarify this situation. Some appear to have occupied hilltops or high bluffs; others were apparently located on slopes, or on the shores of creeks, marshes or lakes in low-lying, poorly drained settings. In the Quinte area, and to a lesser extent around Perch Lake,

the early descriptions note that there was a tendency for the mounds to occur in pairs: some so closely spaced that they were conjoined; others separated by distances of up to 30 metres. In such pairings, the two features were said to be of similar size.

The descriptions of the construction of the mounds provided by Wallbridge and Beauchamp agree that the typical form (Figures 3 and 4) consisted of a ring or “truncated cone” formed of burnt and fire-cracked granite rocks and cobbles

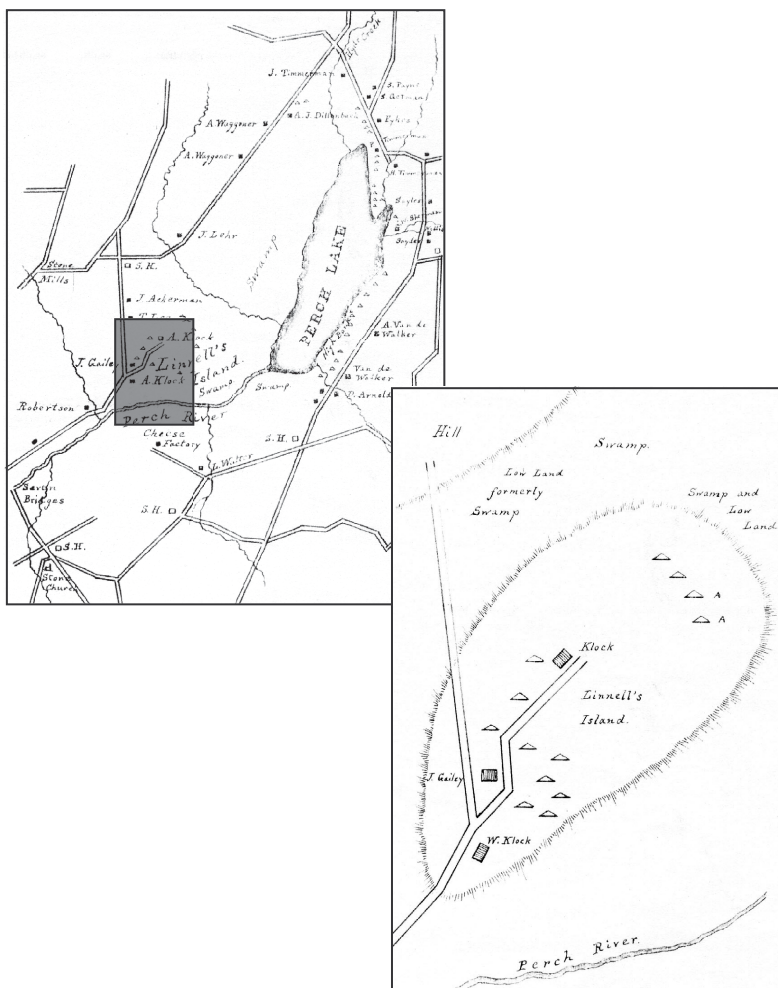


Figure 2. *Beauchamp's maps of the distribution of burnt stone mounds in the immediate vicinity of Perch Lake. Adapted from Beauchamp (1905:Plates 1 and 2).*

of varying sizes within a matrix of charcoal and ash-rich soil. These annular features measured roughly 30 to 90 feet (9.2-27.5 metres) in diameter at the base and rose to a height of five to eight feet (1.5-2.4 metres). The diameter at the summit measured approximately 12 feet (3.7 metres), while the central depressions measured approximately eight feet (2.4 metres) in diameter and were of various depths relative to the surrounding banks (Beauchamp 1905:7; Marvin 1887:58-59; Wallbridge 1860:411). Marvin's description, however, does not seem to suggest that burnt stone was a particularly noteworthy component of the mound banks.

A number of the reports of the early excavations within these mounds frequently mention the pres-

ence of rectangular "stone fireplaces" or stone-lined "boxes" located in the approximate centres of the mounds. These features (Figure 5) were dug into the original ground surface and lined with flat limestone slabs (Beauchamp 1905:13-14; Wallbridge 1860:412). Wallbridge and Beauchamp also noted that the burnt rock comprising the surrounding ring of the mounds generally consisted of igneous materials that were less abundant or easily found than the locally predominant limestones.⁴ Beauchamp (1905:10) took this to mean that the changes limestone undergoes when subjected to burning were seen to be "objectionable" on the part of the builders of these monuments.

The general absence of artifacts from either the base of the mounds, their burnt rock banks, or—

Figure 3. *Two mounds on Hyde Creek north of Perch Lake as sketched by William Beauchamp (1905:Plates 4 and 6). A schematic internal plan of the Figure 3a mound is provided in Figure 5.*

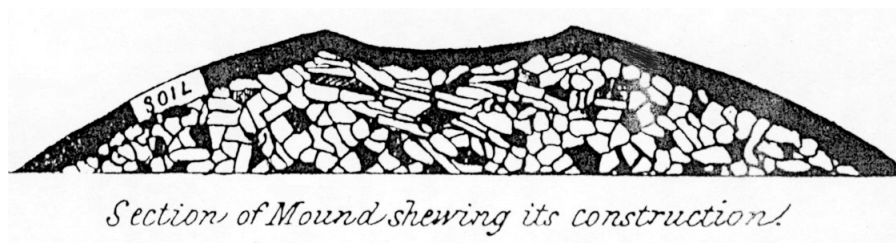
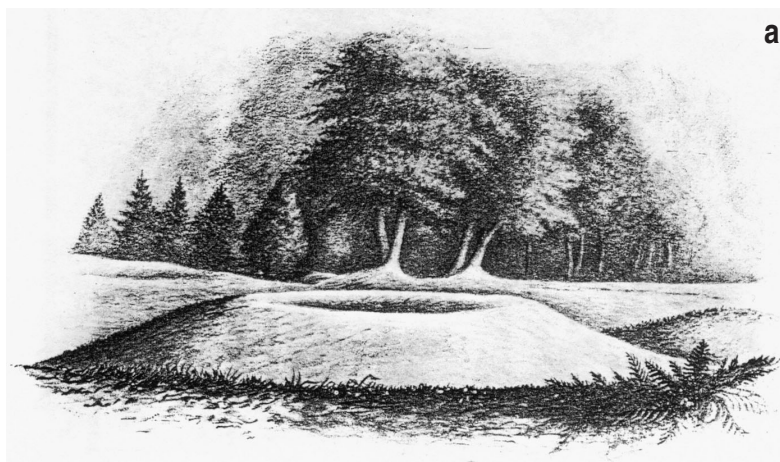
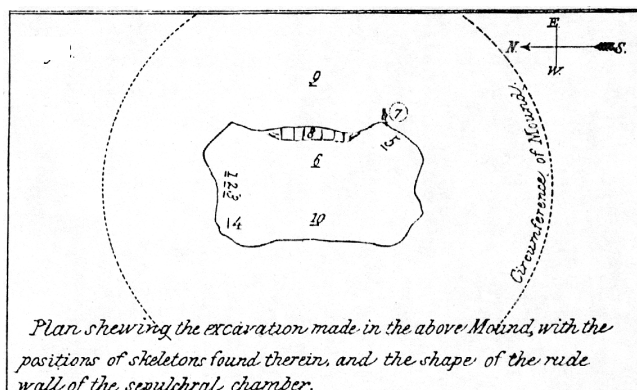


Figure 4. *Cross-section of a Quinte mound excavated by Wallbridge at Massasauga Point*

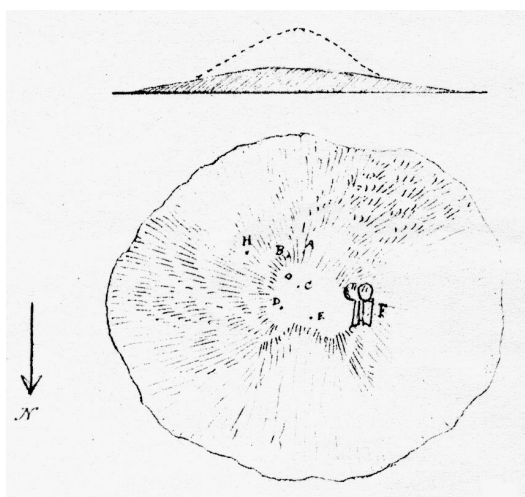
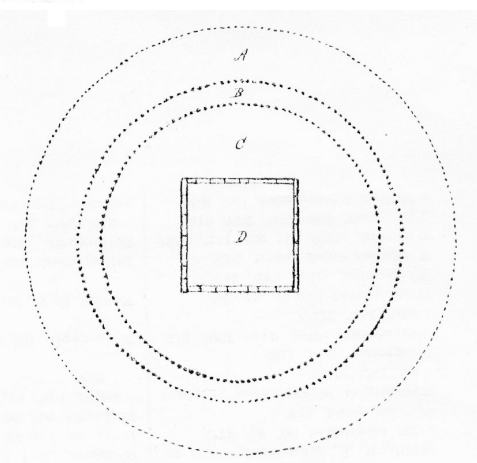
apparently—from their immediate surroundings was a further source of consternation. On what must have been at least his fifth excavation, Wallbridge finally discovered the remains of five to twelve bodies in the central stone-lined box or

“sepulchral chamber” of a mound at Massasauga Point (Figures 4 and 5). These bodies were accompanied by grave goods that included a uni-laterally barbed point, a bone awl, tubular beads of conch *columella*, and an incised antler comb



Wallbridge's 1860 plan of the stone slab-lined "sepulchral chamber" in the burnt stone mound excavated at Massasauga Point.

Beauchamp's 1905 plan of a burnt stone mound on Hyde Creek showing an idealized rectangular slab-lined "fireplace" in the centre of the feature (D). A, B, and C denote the outer slope, crown of the ridge and the inner slope of the mound respectively. This mound is the same as that illustrated in Figure 3a.



Beauchamp's 1905 plan and cross-section of a burnt stone mound on Cattaraugus Creek. F denotes a stone fireplace.

Figure 5. Plans of mound interiors containing central box-like features. From Wallbridge (1860: Figure 2) and Beauchamp (1905: Plate 11 Figure 2 and Plate 12 Figure 2).

(Wallbridge 1860:415-417). The comb is suggestive of a late Middle Woodland Point Peninsula complex provenience, circa A.D. 500-700 (Spence et al. 1990:166). Although Wallbridge could not date these finds with any precision, he was satis-

fied that he had proved that the Quinte monuments "belong to the class of sepulchral mounds, such as the observations of Drake, Squier, Schoolcraft, and many other writers, show to exist over a very wide range of country"

(Wallbridge 1860:414). While the Quinte mounds had largely failed to yield the spectacular finds reported elsewhere in the eastern part of the continent, they appeared to be the product of the dispossessed race of Moundbuilders (Wallbridge 1860:413-414).

Initially Beauchamp (1894:540-541) accepted that the Quinte mounds were burial features, but in later years (1905:11) was inclined to believe that Wallbridge's burials were intrusive and of no "high antiquity". He likewise came to view accounts of human remains found in the Perch Lake mounds with some skepticism. Marvin's (1887) suggestion that the Perch Lake mounds were the remains of "hut rings" or "camp bottoms", which was based on the work of antiquarians, ethnographers and anthropologists in various areas of the New World, was far more acceptable. These features were most likely the "foundations of early [Algonquian] lodges" (Beauchamp 1905:5, 7, 19-20, 22). Ethno-historic accounts of Algonquian prescriptions regarding the disposal of waste, particularly with respect to the great care accorded to the remains of game, were thought to provide the explanation for the comparative dearth of artifacts or food debris on these sites (Beauchamp 1905:22-23).

Following in Beauchamp's footsteps in the 1920s and 1930s, William Ritchie visited those Perch Lake mounds that could be relocated and carried out limited excavations at a few of them (Ritchie 1944:313-318). He continued to excavate such sites, both in New York and at Massasauga Point, over the next several decades (Ritchie 1949; 1969). In describing the salient features of the mounds in terms of stratigraphy and morphology that he encountered, it comes

as no surprise that Ritchie provided greater detail (Figure 6), although he too found it difficult to explain them. On the basis of his personal experience in excavating these mounds, he discounted the existence of a subsurface stone-lined pit or fireplace (Ritchie 1969:5). Instead, he documented the presence of a series of successive hearths within the central depression of several mounds, at the base of the peripheral banks and at various levels within the fired rock, ash and charcoal matrix of the rings (Ritchie 1944:315; 1969:8). He was also inclined to regard Wallbridge's multiple burials as "intrusive" within an earlier monument (Ritchie 1969:8), even though he himself encountered "primary" burials in two of the mounds he investigated during his own work at Massasauga Point⁵. In the one instance, a child and an adult female were buried under rock slab coverings at the base of the central depression of a mound, while in the other an elderly, possibly male, individual had been interred within the rubble deposits of the annular ring (Ritchie 1950:259, 261). None of the interments was accompanied by formal grave goods; however, random inclusions of corded rocker-stamp decorated Vinette 2 pottery were found near the child burial (Ritchie 1950:259, 1969:9; Spence et al. 1990:166). A mid-seventh century A.D. radiocarbon date from one of the Perch Lake mounds, selected from a series of both earlier and later returns, was cited as evidence confirming a late Middle Woodland, "Kipp Island phase" attribution for the basic class of monument.

Ritchie's first inclination was to accept the idea that these features were domestic sites (Ritchie 1944:317), although such an interpretation was

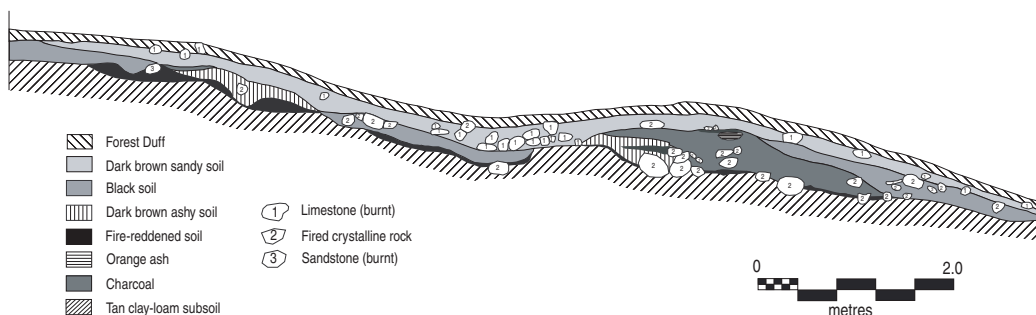


Figure 6. Cross-section of a burnt stone mound at Perch Lake through the centre of which Ritchie excavated a two to four foot (0.6-1.2m) wide trench in 1968. After Ritchie (1969: Figure 1).

hindered by the persistent lack of household debris, despite the fact that the prevailing soil chemistry resulted in optimal conditions for preservation of comparatively fragile material such as bone. The only substantial quantities of artifacts recovered from any of the sites he dug were clearly deposited some time after the mounds themselves had been formed. These consisted of scatters of Late Woodland Iroquoian debris on the upper surfaces of a few sites (Ritchie 1944:316). He was compelled, therefore, to reject Beauchamp's suggestion that the mounds were the remains of earth lodges (Ritchie 1969:8). While he suggested at one point that they may have served as sweat lodges (Ritchie 1944:316), he was on the whole left with the impression that "some unfathomable ceremonialism lay behind the construction of... the Perch Lake structures" (Ritchie 1944:318). Over the next two decades, Ritchie remained of the belief that the majority of the burnt mounds represented the remains of late Middle Woodland ceremonial activity, even if he vacillated over the precise form that this ritual took. His last published words on the subject suggested that the Perch Lake mounds, and perhaps some of the Quinte features, were the product of an "annual or cyclical observance...[that was] perhaps some regional expression of new fire ceremonialism" (Ritchie 1969:10). He regarded the few Quinte mounds in which he had found "primary" burials as a separate category of monument, which were related most closely to the Rice Lake burial mounds (Ritchie 1950:261).

The Syntheses

Given that no published accounts of the excavation of the burnt stone mounds have appeared since 1969,⁶ subsequent discussions of these features have relied heavily on the writings of Wallbridge, Beauchamp and Ritchie. These later treatments, when they have not misinterpreted the early accounts in terms of the basic structure of the features, have similarly failed to reach a consensus as to their function. The central depressions have been interpreted, naturally enough, as the result of looting, while the masses of rock debris have been re-characterized as exterior stone fac-

ings built to maintain the structural integrity of the mound (e.g., Barber 1976:20). Walter Kenyon, in *Mounds of Sacred Earth*, which serves as a summary account of his work on mound sites throughout Ontario, was not inclined to offer any definitive statements concerning the "anomalous" Quinte and Perch Lake mounds: "Our only achievement so far has been to translate our ignorance into Latin: we now refer to them as 'annular' mounds" (Kenyon 1986:9). In their synthesis of the Middle Woodland period in southern Ontario, Spence et al. (1990:166) note only that the Quinte mounds are constructed "largely of stone and [are] frequently without burials." They do so in the context of their discussion of mortuary patterns, implying that monuments of this time period are necessarily associated with funereal rites. The most recent discussion of the burnt stone mounds appears in the second volume of J.V. Wright's mammoth *History of the Native People of Canada* (Wright 1999), and resurrects Ritchie's sweat lodge interpretation. As Ritchie had done in 1944, Wright (1999:680) emphasized the possibility that these features were situated in areas of perceived supernatural power or sacred significance that were visited on a regular basis, thereby accounting for the accumulation of massive quantities of burnt debris.

The Interpretation of the Quinte and Perch Lake Mounds in Historical Context

All archaeological interpretation is shaped by the cultural and intellectual context within which archaeologists find themselves. If additional demonstration of the truth of this axiom is required, then it is provided amply by the changing perspectives on the Quinte and Perch Lake mounds.

In the 1860s, Wallbridge saw these features as testimony to the former presence of a race of sophisticated Moundbuilders in North America who were dispossessed by the natives encountered by European missionaries and explorers in the seventeenth century (cf. Silverberg 1968; Trigger 1989:104-108, 119-126), although he was apparently more willing than many to recog-

nize that the basic Moundbuilder hypothesis rested, in large measure, on “mere conjecture” that “should be received with caution” (Wallbridge 1860:414). Even if removed from the main arena of the Moundbuilder debate, Ontario researchers were not immune to its effects (Vaccarelli 1995).

By the time that Marvin and Beauchamp were writing on the burnt stone mounds of western New York, the Moundbuilders myth had been thoroughly discredited in scholarly circles. While still lacking a firm chronological understanding of the mounds, they were prepared to accept the fact that they were comparatively ancient. Based on similarities with features seen elsewhere, Marvin posited that the mounds were the remains of circular lodges that were the antecedents of the longhouse. The shift to the longhouse marked an evolutionary development from “the lowest to a higher form of barbarism” (Marvin 1887:60). Whether Marvin equated this transition to the hegemony of Iroquoians over Algonquians in western New York is not clear from his writings. Beauchamp, on the other hand, clearly believed that the sites were to be attributed to Algonquian occupations that predated Iroquoian settlement of the region, based not only on perceived similarities to ethnohistorically-documented Algonquian beliefs with respect to the disposal of waste, but also on the assumption that Iroquoians were comparatively recent migrants to their contact-period homelands. These interpretations were significant, however, in that they advocated that the processes that led to the formation of these features were those of prosaic domesticity. They were the remains of houses rather than of some arcane series of mortuary or ritual acts. Such an interpretation befitted those who were intimately familiar with—and contributing to—the growing body of research that was firmly grounded in a functional approach to archaeology at the turn of the century.

Over the course of his 30 or 40 years of sporadic investigation of the burnt stone mounds, Ritchie, unlike Beauchamp, never really deviated from the belief that these features were the result of some form of ritual activity, as no secular func-

tions were immediately evident. Given the religious and social roles of sweat-bathing among most of the peoples of the New World, the probable antiquity of this practice, and the long-standing awareness of the importance of this practice on the part of anthropologists and ethnologists (cf. MacDonald 1988:17), Ritchie’s (1944:316) initial proposal that the mounds represented the by-products of sweat-bathing made sense, even though he seemed less than entirely convinced (Ritchie 1944:318). Later on, he expressed even greater reservations concerning the sweat lodge interpretation; the scale of burning that occurred on these sites led him to conclude that they were the formed as result of an annual or cyclical rite of some type of fire ceremonialism (Ritchie 1969:8, 10).

At the same time, Ritchie’s investigations occurred while the basic temporal framework that underlies the culture-history of the Northeast to this day was coming together. Indeed, his work was fundamental to this achievement, as he defined a series of Archaic and Woodland period phases and complexes with some degree of chronological control. By the time of his last writings on the subject at the end of the 1960s, he had thoroughly rejected the idea that Quinte and Perch Lake mounds could be associated with Algonquians. Dating of the mounds to the seventh century A.D. (his Kipp Island phase) effectively rendered such an association impossible. An Algonquin occupation of the eastern Lake Ontario basin at this time no longer fit the prevailing cultural-historical paradigm for the region demanded by the new *in situ* hypothesis of Iroquoian origins (Ritchie and MacNeish 1949; MacNeish 1952). Kipp Island was seen as the direct precursor to the vaguely defined Hunter’s Home phase, which was itself devised to mark the transition between Point Peninsula and Owasco (Ritchie 1980:253-254). Late Middle Woodland and early Late Woodland thus represented an unbroken continuum of cultural development in the Iroquoian homelands of the Northeast.

When Ritchie ceased to write on the subject of the burnt stone mounds, however, the momentum was lost. These features came to be treated

in summary fashion as part of a “generic” package of Middle Woodland cultural traits, even if they were inexplicable. With its origins in the Late Archaic and Early Woodland periods, the elaborate mortuary ceremonialism of the Middle Woodland—which included the development of large cemeteries and the use of prominent natural features and artificial mounds—is generally seen as a reflection of the emergence of an increasingly strong sense of social or community identity. The long-term use of formalized cemeteries, in some instances including monumental construction, along with a general increase in sedentism during the Middle Woodland are now thought to point to some important changes in land use and control brought about by increasingly sedentary subsistence-settlement patterns within smaller, more well-defined band territories (Ferris and Spence 1995:98; Spence et al. 1984; Spence et al. 1990:165-168). In Ontario, these trends are most apparent in the Rice Lake region, a short distance to the west of the Bay of Quinte (Figure 1). Emphasizing ancestral rights to—and imposing symbols of permanence upon—the land through mound construction became increasingly important as population levels rose and band territories became increasingly “packed” within a circumscribed area of rich natural resources.

Spence et al.’s (1990:166) brief discussion of the Quinte and Perch Lake mounds is clearly premised by this basic understanding of monument construction and burial ritual as an expression of territorial and band identity. Yet by glossing over the distinctiveness of the burnt stone mounds vis-à-vis the better documented *earthen* burial mounds of the Rice Lake and upper Trent River areas (Figure 1), not to mention the apparent numerical superiority of the former, they have conflated two distinct monument types. The fact that burials have been encountered in a few of the burnt stone mounds, regardless of whether they constitute primary or secondary interments, would certainly suggest that at times some of these features played roles similar to other mounds or places that were resonant with meaning, but unlike those found on the shores of Rice Lake and the Trent River, the majority of the Quinte mounds do not seem to have been so used.

J.V. Wright’s recent discussion of the burnt stone mounds, re-asserts their distinctive qualities and combines the increasing sedentism and association with specific sacred or socially significant places apparent in the Middle Woodland with the documented importance of sweating and its attendant ritual during the Late Woodland and contact periods. Much as Ritchie had done in 1944, Wright (1999:680) emphasizes the possibility that these features were situated in areas of perceived supernatural power or sacred significance that were visited on a regular basis, thereby accounting for the accumulation of massive quantities of burnt debris. Wright’s interpretation, however, appears to owe much to another more contemporary debate in the archaeology of southern Ontario, that surrounding the identification and interpretation of features known as semi-subterranean structures.

Since they were first identified in the mid-1980s as a distinct feature type on Ontario Iroquoian sites (MacDonald 1986:41-55), semi-subterranean structures have been recognized with increasing frequency throughout southern Ontario. These structures are rectanguloid features with a lobed projection that together form a keyhole-shaped plan (Figure 7). 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. It is thought that these posts 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:Figure 2, 1992:329).

The most convincing explanation offered as to the function of these 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,

Figure 7. *The excavation of an Iroquoian semi-subterranean structure. The upper fill layers have been removed to expose the basal floor layer and surrounding ring of structural posts, which are marked by the straws. The ramped entrance to the structure is to the left. Photo courtesy of Archaeological Services Inc.*



curative, or socio-political purposes (MacDonald 1988, 1992; Smith 1976), although uses for other purposes requiring solitude or segregation cannot be ruled out. While semi-subterranean sweat lodges are apparently a post-thirteenth century A.D. phenomenon in Ontario (Ferris and Spence 1995:113; MacDonald and Williamson 2001:71-72), their precursors are found in Pennsylvania and south-western New York as early as the tenth century (Smith 1976; MacDonald 1988:21). The frequency with which these structures occur within longhouses on Ontario Iroquoian settlements between circa A.D. 1200 and 1500 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 (MacDonald and Williamson 2001:71-72; Robertson and Williamson 1998:147).

The debate over Ontario Iroquoian semi-subterranean structures as sweat lodges during the late 1980s and early 1990s, at the time when Wright likely was engaged in writing or revising much of the text that would ultimately appear in the first two volumes of his *History*, was a contentious one, spurred on not only by discussion of their appropriate interpretation (for a review of which see MacDonald and Williamson [2001:66-68]), but also by an unspoken concern that these

cultural features, regardless of their function, had gone unrecognized during the previous 20 years of large-scale Iroquoian settlement excavations. It was also a debate that Wright apparently followed with interest and which influenced his thinking on more than just the Quinte and Perch Lake mounds. In the first volume of his *History*, for instance, Wright suggested that a series of large stratified pits that he and Robert Dailey had found at the Middle to Late Archaic Malcolm site near Cornwall and had interpreted as earth ovens (Dailey and Wright 1955:22), were more likely to represent sweat lodges or sweat baths (Wright 1995: 250, 252 [Figure 32]). This re-interpretation was based on a few superficial similarities between these Archaic pits (Figure 8) and the semi-subterranean structures of the Middle and early Late Iroquoian periods (i.e., their general size, flat-bottomed profile, multiple fill layers and an abundance of fire-cracked rock). It ignored several important differences in terms of their basic attributes, namely the lack of peripheral posts of an associated superstructure, the fact that the floors of the pits consisted of a “solid layer of charcoal atop which rested a layer of severely burnt and fragmented bone” (Wright 1995:250 [emphasis added]) as opposed to a more heterogeneous midden-like accumulation found on the floors of Iroquoian semi-subterranean structures, and the fact that “fire-baked soil lined the sides and bottoms of the features”

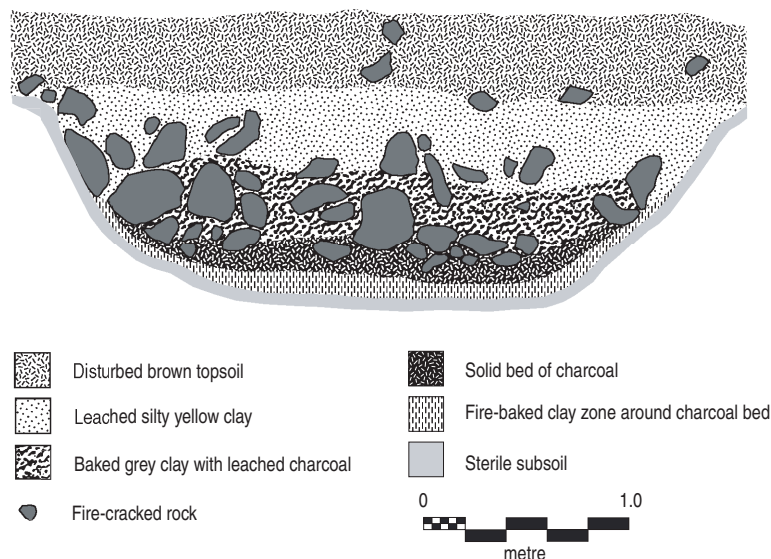


Figure 8. Profile of one of the Malcolm site features originally interpreted as earth ovens (Daily and Wright 1955), but subsequently reinterpreted as a sweat lodge (Wright 1995). Adapted from Wright (1995: Figure 32).

(Wright 1995: 250, 252 [Figure 32]). The Malcolm site features, as described by Wright, are more likely to have formed as a result of in situ burning in a sealed, reducing atmosphere that produced temperatures sufficiently high to alter the chemical composition of the subsoil into which the pit was cut. Such temperatures must have been beyond that which could be borne by anyone seeking the benefits of the sweat lodge rite. Thus, Dailey and Wright's original 1955 suggestion that the Malcolm site pits represent earth ovens appears to remain the most feasible alternative.⁷

What Wright's 1995 re-interpretations of the Malcolm site features and his discussion of the Quinte and Perch Lake mounds do demonstrate is the powerful influence that discourse on a particular problem may have on a much wider range of archaeological issues. Obviously, this has both positive and negative consequences. In the case of the Malcolm site features, the influence of the sweat lodge debates of the 1980s and 1990s among Ontario researchers appears to have led to an unnecessary and ill-advised re-interpretation. Nevertheless, by widening consideration of the burnt stone mounds of the eastern Lake Ontario basin to include discourses on comparable features in other parts of the world, it will become apparent that sites that are similar in form have presented similar challenges to interpretation,

sparked similar arguments and present similar uncertainties. By coincidence, these debates were rehearsed at the same time that the sweat lodge debate was influencing Ontario researchers. They provide some new alternatives for consideration as well. Whether they provide the answers must await further detailed investigation of the Quinte and Perch Lake mounds.

Analogues to the Quinte and Perch Lake Mounds and Analogous Debates

During the late 1980s and early 1990s, researchers in two different parts of the world, with very different traditions of archaeological inquiry, took renewed interest in sites that bear a number of similarities to the Quinte and Perch Lake mounds. In Texas, these sites are known as burned rock middens. In Ireland, they are known as *fulachata fiadh*⁸ ("outdoor" or "wild cooking places"). Similar features are also found in the English Midlands, the Orkneys, and other parts of Atlantic Europe, although they are not as common as in Ireland. In each area, concern arose as to the seeming complacency that had developed with respect to these sites, particularly as the evidence supporting the prevalent interpretations, which are clear from their names, remains ambiguous. These debates have yet to be resolved, but they serve to highlight alternative

ways of thinking about the Ontario and New York sites.

Texan Burned Rock Middens

Since 1918, approximately 200 burned rock middens have been excavated in central and west central Texas (Howard 1991:45; Prewitt 1991:26). The middens represent the accumulation of large quantities of fire-cracked and broken rock that form heaped mounds. There are two basic forms: domed, which tend to occur in areas of Precambrian bedrock in central Texas (Prewitt 1991:25) and annular, which for the most part are located in limestone upland areas characterized by shallow stony soils in the west central part of the state (Creel 1991:37, 40). The annular forms (Figure 9) consist of a well-defined central depression filled with ashy soil and a few rocks, surrounded by jumbled masses of burnt rock debris. Artifacts tend to be sparse on these sites, but it is thought that, for the most part, they date to circa 3,000-300 B.C. (Prewitt 1991:26), a period characterized by foraging and hunter-gathering subsistence strategies adapted to the savannah environment of the region at that time (Collins 1991:2).

Controlled, broad horizontal excavation of these features in recent years, as opposed to trenching (the technique that has prevailed in the investigation of the Quinte and Perch Lake mounds), has revealed order amongst the masses of discarded rock. Hearths, in the form of basin-shaped pits that contain accumulations of ash and fired soils, or more rarely set on prepared pavements defined by rock slabs and cobbles, have been documented at the base of many

mounds, or on their uppermost surfaces (Howard 1991:59-63). The absence of such features within the middle levels of the mounds would appear to be a consequence of their disruption during the course of repeated use (Howard 1991:62) as rock was continually rearranged to prepare new working surfaces and new debris was added to the existing dumps.

As the name "burned rock midden" suggests, the earliest research on these sites was premised on the assumption that these features represent the remains of domestic activities. Recent work has refined the picture somewhat, with the suggestion that the mounds are the by-products of large-scale, seasonal processing of foodstuffs finding greatest favour. Baking or roasting acorns or acorn meal and other plant foods in earth ovens or on stone "griddles", or boiling acorns in wooden containers or skin-lined pits in order to leach out their tannic acids, find greatest favour, although meat roasting has also been suggested. The acorn processing thesis is based on the somewhat complementary distributions of burnt rock middens and modern oak savannahs (e.g., Creel 1991), a suggestion that has been partially confirmed through recent analyses of charred botanical remains. The latter studies, however, have resulted in the identification of a diverse range of nuts, edible grasses and berries, with few taxa represented consistently from one site to the next (Howard 1991:63). Regardless of the foods being prepared or refined, it is clear that all of these processing activities relied on hot-stone cooking techniques (whether wet or dry), which suggests that these features have formed as a result of the

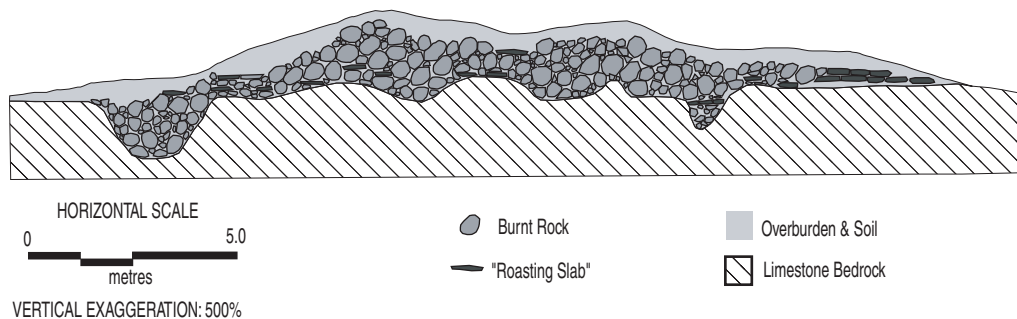


Figure 9. Schematic cross-section of a Texan burned rock midden. Adapted from Shiner and Shiner (1977:Figure 15).

construction of successive, intersecting hearths on a stable surface over a long period of time (Howard 1991:57; Collins 1991:5).

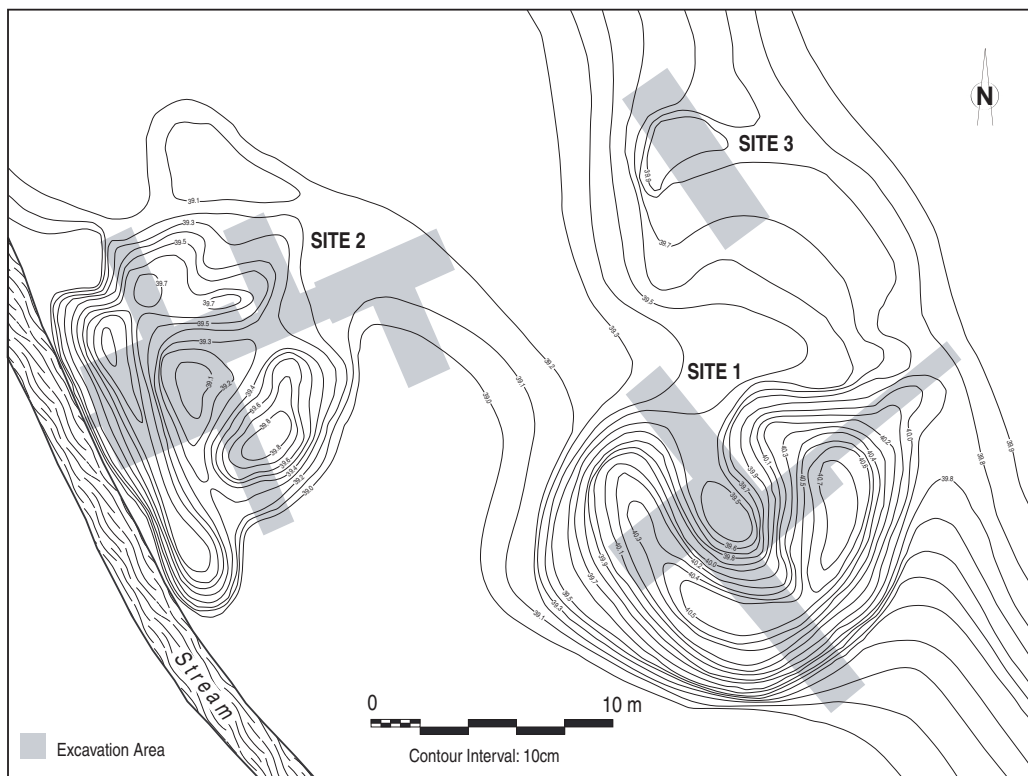
Many questions remain as to the function of the burned rock middens, but it has been recognized that far more careful and detailed excavation techniques will be necessary if they are to be answered.

Irish Burnt Mounds

Fulachta fiadh, or burnt mounds, form one of the most common types of field monuments in many parts of the Irish countryside. Estimates based on surveys up to the late 1980s put the number of sites at over 4,000 (Buckley 1990b:9). The “classic” *fulacht fiadh* is located near a spring or stream in a boggy or marshy area and consists of a circular, oval or D-shaped mound of fire-cracked rock and charcoal-rich soils, which may be annular, penannular or domed in form (Figure 10). “They are generally so unobtrusive as to go unnoticed or to be mistaken for a mound of field stones or the foundation of

a ruined hut” (O’Kelly 1989:223). These mounds in turn surround and overlie a wood plank- or stone-lined trough, a clay-lined pit, dug-out tree trunk, or similar large tank cut down to the watertable or fed by a channel, in addition to one or more hearths and perhaps other ancillary features (Figures 11 and 12). Recent work in advance of major infrastructure projects has demonstrated the existence of many other *fulachta* that are little more than thin spreads of charcoal and burnt soil lacking any associated mound of spent rock (Buckley 1991; McLoughlin 2001). *Fulacht* excavations seldom yield a large quantity of artifacts, but extensive programs of radiocarbon dating indicate that these features span the Early Bronze Age (2,300-1,700 B.C.) to the seventeenth century A.D., although the majority seem to date to the second millennium B.C. (Buckley 1991:5).

Based on a variety of legendary or pseudo-historical accounts found in early Irish literary sources dating from the ninth to eighteenth centuries



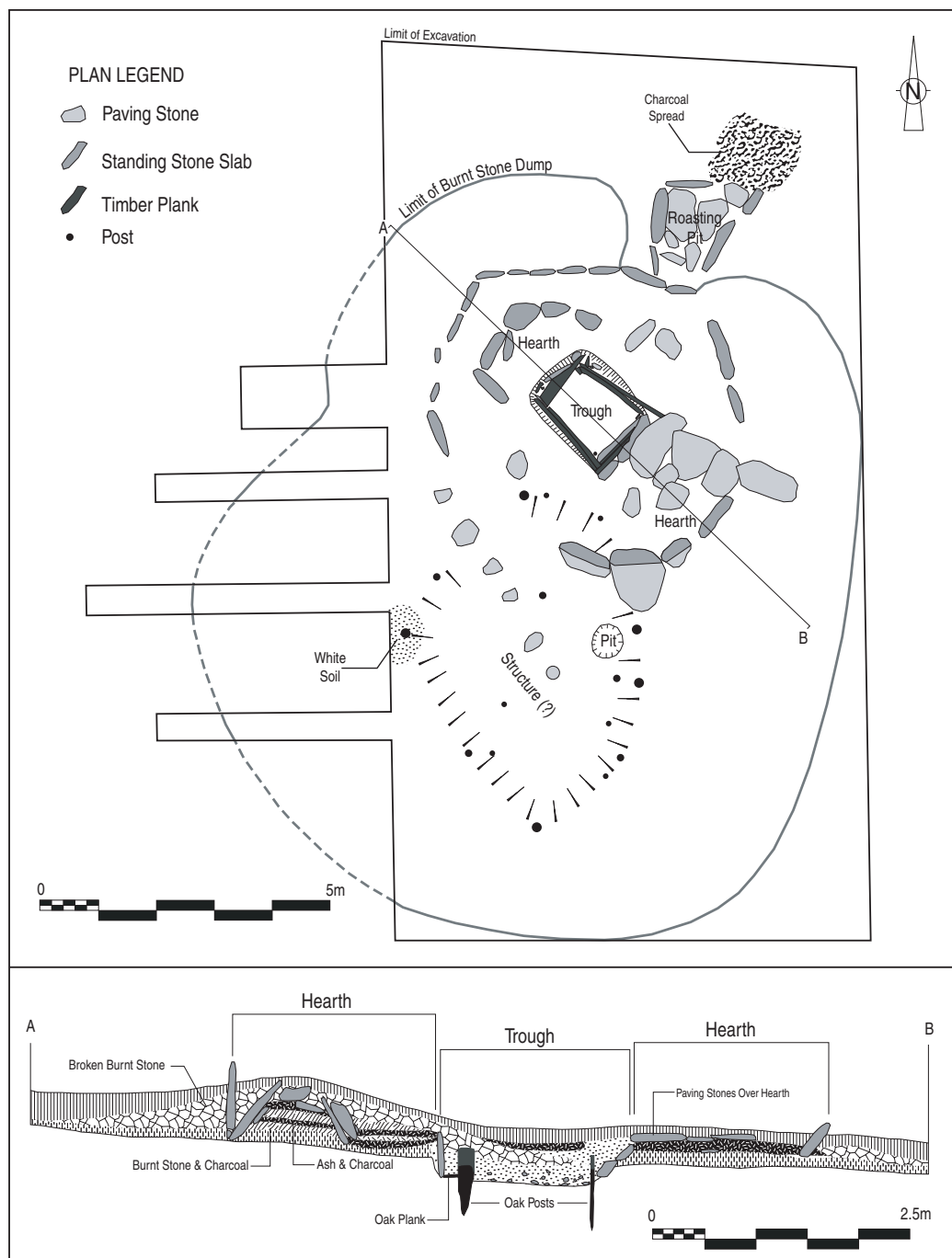


Figure 11. The burnt mound site of Ballyvourney I, County Cork, Ireland, the excavation of which led to Michael O'Kelly's influential cooking experiments. Adapted from O'Kelly (1954:Figures 2 and 3).

A.D., it had long been assumed that *fulachta fiadh* represented the remains of cooking places, where meat was boiled following a successful

hunt (Ó Drisceól 1988:673-674, 1990:157). The general lack of associated domestic debris or substantial structural remains on these sites, further

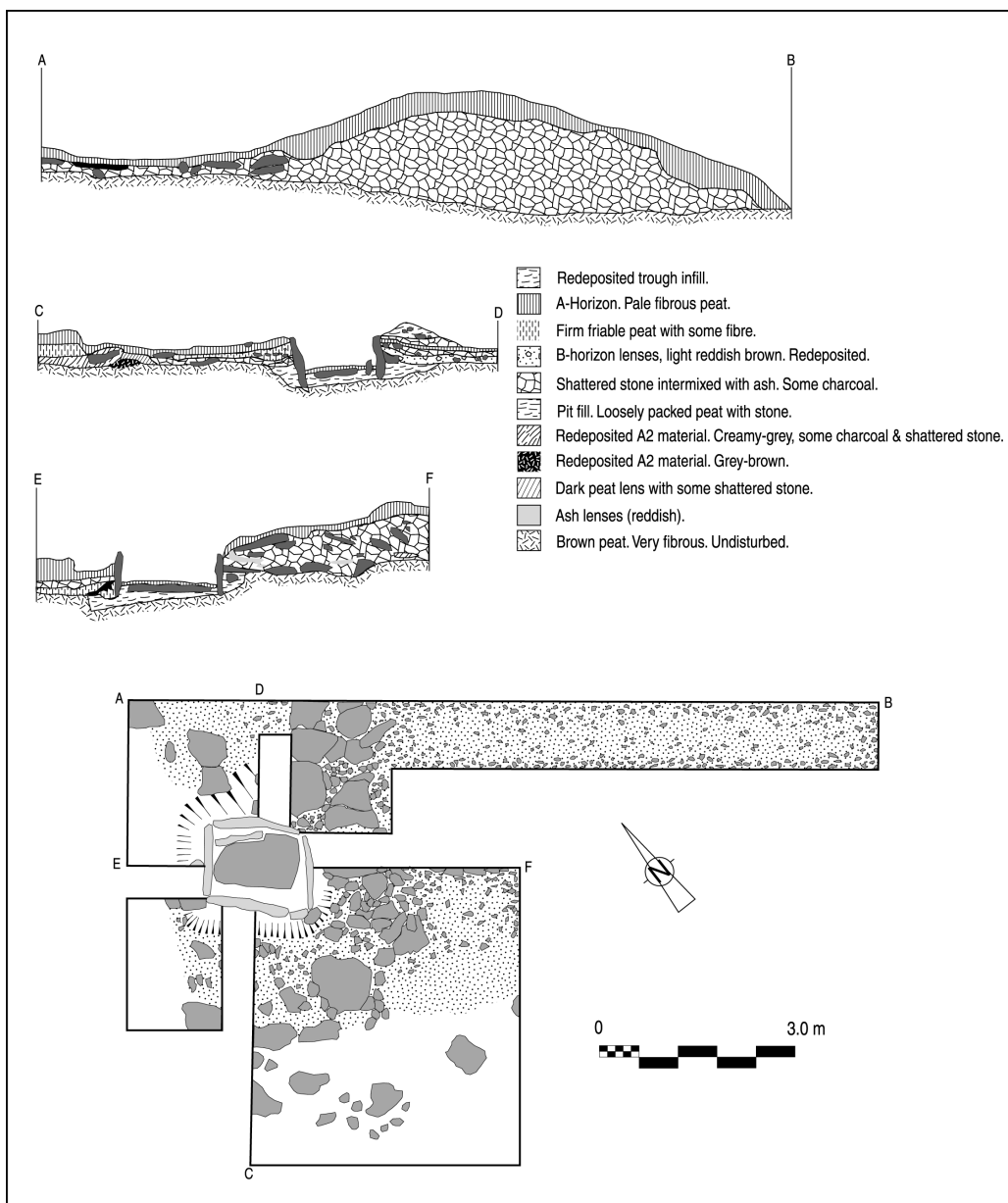


Figure 12. Plan and profiles of a burnt mound at Coarhamore, County Kerry, Ireland, showing the central trough and the complexity of debris deposition throughout the surrounding banks. Adapted from Sheehan (1990:Figure 13).

seemed to reinforce the suggestion that these sites were utilized during hunting expeditions away from major settlements. This interpretation became firmly entrenched among archaeologists during the 1950s following a series of experiments carried out by Michael O'Kelly after his excavations at Ballyvourney I in County Cork

(Figure 11), in which he demonstrated that the water in the 450-litre-capacity trough could be brought to the boil in 30 to 35 minutes through the continuous addition of red-hot rocks and removal of the cooled stones. A 4.5 kilogram joint of mutton was cooked in little more than three and a half hours at a rate of 20 minutes per pound

(O'Kelly 1954:119-123), which is a timing not far off cooking rates using modern convection ovens. Measurement of the volume of shattered rock produced by this process led to the suggestion that the mounds of spent rock found at Ballyvourney I (approximately 27m³) represented the debris of about 50 cooking events, which likely took place over a number of years (O'Kelly 1954:122-123). Subsequent experiments were successful in reproducing Kelly's results or improving upon them in terms of efficiency, and in demonstrating that such activities could indeed yield the patterns observed during the excavation of these sites (e.g., Buckley 1990a; Ó Drisceól 1988).

This general view of *fulachta fiadh* was essentially unchallenged until the late 1980s, when debate emerged following a proposal that they were more likely to be the remains of steam- or even immersion baths (Barfield and Hodder 1987; Barfield 1991). This suggestion was based largely on the dearth of faunal remains on many sites, together with some suggestive descriptions in the medieval literary record and ethnographically documented practices in Ireland and northern Europe. The debate subsequently widened further, to include suggestions that some *fulachta* may also have been related to the preliminary stages of wool production, serving as facilities for washing, fulling or dyeing textiles (Jeffrey 1991). Continued experimental work has demonstrated that these functions are also quite feasible (Denver 2000). The outcome of these alternative proposals is the recognition that *fulachta*, as a broad class, must be recognized as subsuming a range of complex sites of variable functions, each of which must be approached with considerable attention to detail during excavation (cf. Connolly 2001).

An Alternative Proposal for the Quinte and Perch Lake Mounds

The degree to which the construction of formal monuments that leave durable surface traces in the countryside was a common practice in the precontact history of the southern Great Lakes remains unclear. In southern Ontario, evidence of monument building that has survived Euro-Canadian land clearance is largely restricted to the

works of Early and Middle Woodland groups in the eastern part of the region. Given the fact that the Quinte and Perch Lake burnt stone mounds date to the later portion of the Middle Woodland and fall within the general area of burial mound construction, it is perhaps natural that they too would be assumed to be the remains of ritual or highly symbolic acts. It should be apparent by now, however, that there is a need to reassess this assumption, even though the investigation of these features has languished for more than thirty years, and none of those sites that have been excavated have been published in extensive detail.

It is clear that the Quinte and Perch Lake burnt stone mounds bear close similarities with sites found in Texas and Atlantic Europe and undoubtedly elsewhere: namely the massive quantities of shattered, burnt rock enclosing a small area, the presence of hearths, deposits of ash and charcoal-rich soil, and a general dearth of associated artifacts. Some other parallels with the burnt mounds of Ireland and Britain are even more striking, although these must remain only subjective impressions until further research is devoted to the Ontario and New York sites. In terms of site distribution, there is a possible tendency for the Quinte and Perch Lake sites to be located in watery areas (this seems most evident in the Perch Lake region where Beauchamp mapped many mounds in the marshy areas surrounding the lake) just as is the case for the Irish *fulachta fiadh*. In terms of site structure, several of the Perch Lake mounds and at least one of the Quinte mounds likely possessed more or less centrally located stone slab-lined "sepulchral chambers" or "fireplaces" that were excavated into the subsoil. Although Ritchie (1969:5) was disinclined to accept the presence of such features, perhaps in consequence of his reliance on narrow trench excavation techniques, they are highly reminiscent of the troughs found in the European burnt mounds, which clearly served as tanks in which water was heated. Given such formal similarities, it is possible that they are the products of similar activities.

A wide variety of hot stone cooking or food processing techniques involving boiling large quantities of water have been documented ethnographically

throughout the New World (e.g., Keene 1981:74-75; Sassaman 1993:113-115). Such methods were utilized in situations of immediate consumption or were intended to produce foodstuffs amenable to longer term storage. Ceramic vessels, skins, or baskets have all been reported as suitable for the preparation of foods such as meat, fish, maize, or nuts through hot stone cookery (e.g., Fenton [ed.] 1908:60). Preparation of nuts such as acorns, in particular, demanded the use of such techniques, as they had to be leached in a boiling ash lye to be made palatable (Waugh 1973:82, 122). Boiling large quantities of water was also essential in the rendering of oils and fats from nuts, fish, or animal carcasses.

Nut-bearing trees would have been comparatively abundant in the drier uplands portions of the eastern Lake Ontario basin, and could have provided an important and storable source of protein and fat. High in calories and rich in oil, nuts may have been an important dietary supplement, despite the efforts involved in their processing (i.e., collection, shelling and preparation [Keene 1981:73-75], the latter task requiring access to a suitable source of water, which may have involved additional transportation costs in the case of acorns). Fish oil may have been an equally important commodity. Until the 1890s, eastern Lake Ontario supported a very large lake sturgeon (*Acipenser fulvescens*) population (Scott and Crossman 1973:88). Sturgeon are a fatty fish which, in precontact times, were likely harvested in great numbers during the spring spawning season. Preserving the catch through drying or smoking would have constituted a major task during the seasonal subsistence round. Extracting oil would also have been an important activity, as Sagard noted among the Huron: "sometimes they boiled the biggest and fattest... to extract the oil from them, skimming it off the top of the boiling mass with a spoon" (Tooker 1964:64).

While heating water in ceramic containers through use of hot rocks placed within the vessel may have been most efficient in terms of the time required to bring a given volume of water to the boil, the quantities that could be prepared at any one time were necessarily limited by the compar-

atively small size of the pots. Vinette 2 vessels, for instance, are unlikely to have exceeded 15 litres in capacity.⁹ Organic containers such as baskets may have been somewhat larger, but were quite fragile. If using hot rock methods, greater care had to be taken not to allow the rocks to burn through the walls of the container as well.¹⁰ On the other hand, a stone-lined tank dug to the level of the shallow watertable in a marshy setting, or waterproofed with clay chinking if need be, would permit processing on a much larger scale. The investment in constructing such a feature would be repaid by its permanence and durability. Minimal effort would be required to refurbish it upon returning to the site after the absence of a year or two. Even during the post-contact period, when ceramic vessels were much larger and more durable, the lack of a portable container does not appear to have been an undue hindrance to the preparation of food. Bressani noted that Huron travelling parties lacking kettles resorted to the expediency of hot stone cooking techniques: "they made a ditch in the earth, and filled it with water, which they caused to boil by cooling in it a number of stones, first heated red-hot for this purpose" (Thwaites 1896-1901:38:253).

The availability of suitable rock may have been a greater constraint, particularly if one was engaged in more extensive processing than the preparation of a single meal. One of the distinctive traits of the Quinte and Perch Lake mounds is the apparent predominance of igneous and metamorphosed cobbles among the burnt debris, despite the fact that lime- and sandstones form the geological backbone of both areas. Clearly some energy was expended in collecting this material from drift or creekbed sources. Such efforts were likely repaid by the durability of such rocks in the face of repeated heating and dousing.

Moreover, cobbles collected from creekbeds or lakeshores would have had the additional advantage of being washed clean. Experimentation has shown that sedimentary rocks produce far more waste and are reduced to useless fragments far more quickly than igneous and metamorphic materials (Buckley 1990a:171). It has been suggested that *fulachta* in areas of limestone bedrock

may be more recognizable as upstanding mounds than in areas where igneous rocks are more readily available, simply because of the durability of the latter material in the face of repeated heating and dousing (Buckley 1990a:171; Condit 1990:21-22). That a degree of selectivity in favour of igneous and metamorphosed rock was practised at the Quinte and Perch Lake sites seems apparent from the descriptions of Wallbridge, Beauchamp and Ritchie, yet the quantities of spent material generated at these locales were still massive, suggesting that the processing activities taking place were carried out on a large scale or were more or less annual events within the overall subsistence round.

The fact that the excavations of the Quinte and Perch Lake sites failed to yield significant quantities of obvious subsistence remains (as has tended to be the case with respect to the Texan burned rock middens and European burnt stone mounds as well) does not necessarily invalidate the suggestion that they served as food preparation or processing sites. Hot stone boiling techniques are less likely to result in the incidental charring of plant remains, which is essential to their preservation in the archaeological record. Sturgeon, on the other hand, are a cartilaginous fish; their bones are poorly preserved under most circumstances. Even the skeletal remains of bony fish are adversely affected by boiling and do not survive well (Needs-Howarth 1999:16, 18). Finally, rendering animal fats likely entailed pulverizing the larger skeletal elements prior to their final processing. Only the most stringent of modern sampling and flotation procedures are likely to recover the remains of such activities.

Are the Quinte and Perch Lake Mounds “Mere” Subsistence Sites?

The suggestion that the Quinte and Perch Lake burnt stone mounds likely represented cooking or food-processing sites does not necessarily rule out the possibility that they served other roles as well. While the view of these burnt stone mounds as subsistence-related features seems to most closely echo Marvin and Beauchamp’s “hut ring” or “camp bottom” interpretation, it does

not rule out the possibility that they also fulfilled symbolic roles. People adapt their environment—both conceptually and physically—in order to establish their place within their own understanding of the natural and human order of the world. In doing so they define “places”, which assume particular significance in specific situational contexts (cf. Carmichael 1994:96; Hubert 1994:16; Ingold 1993:158-161; Tilley 1994:22-23). The fact that human remains were recovered from several of the Quinte mounds, suggests that such sites played just as important a role in defining the community as did formalized cemeteries. A similar overlap between “prosaic” subsistence-related activities and “ritualized” actions seems to characterize shell middens in coastal regions. Many of the Late Archaic shell middens of the southeastern United States (Sassaman 1993:62-63)—some of which also resemble aspects of the Quinte and Perch Lake mounds in terms of basic layout and form—and numerous Woodland period shell middens in New York and New England (Kerber 1999) include token deposits of human remains, if not complete interments, as well as deliberate, structured, animal burials. Indeed, parallels are also to found with the better known mounds of the Rice Lake region as well where subsistence and mortuary activities overlap. Similarly, the tradition of burial under rock slabs appears to be a long-standing one, even if of variable occurrence (e.g., Cook et al. 1998; Jamieson 1992:78).

Establishing whether the various burials that Wallbridge and Richtie found within the mounds are “primary” or “secondary” remains an important task, but it should not obscure the possibility that these sites may represent the vestiges of a variety of activities. If it is established that these sites are simply prosaic food-processing sites and all of the human remains found at them are “secondary”, their significance as monumental mounds is in no way diminished. Features such as the burnt stone mounds are obviously human creations, yet they have become incorporated into the surrounding landscape as permanent landmarks. Absorption into nature places them beyond challenge, not only to those living at the time of their construction and

use, but to subsequent generations as well. Later generations, regardless of whether they attribute the formation of such a monument to human or divine agencies, would have had few alternative responses to the existence of this artificial, yet permanent feature within the natural landscape. On the one hand, they could completely avoid it, on the other; they could adapt the site to their own needs. While the primary monument may have lost its original significance, it would have remained symbolically loaded, even if its structure or meaning was reshaped to suit contemporary needs (Robertson 1992:30). If, on the other hand, it is established that in certain cases the human burials are "primary", it may be that the material used to erect the mound over the burials was collected from nearby food processing sites, where the debris left over from hot stone boiling represented a ready supply of building material. Yet this would not necessarily diminish the symbolic significance of this debris, for these heaps of burnt stone would likely have been recognized as the remains of an essential activity in the life of the community, whether it took place yesterday or generations ago. It would simply represent another form of the re-use, adaptation and reinterpretation seen at other earlier mound sites such as the Middle Woodland Serpent Mounds on Rice Lake, the final form of which were the result of accretion over many years, and which attracted later Early Iroquoian ossuary burial as well (Johnston 1968:8, 20, 48-50). It is the same process—driven by the same basic logic—that underlies all monument construction, regardless of the scale at which it occurs (Bradley 1993, 1998; Robertson 1992). Meanings are attached to and gathered from the physical surroundings in which people find themselves and the structures that they create. To refer to such later use of monuments as simply "intrusive"—a term which has been applied to many of the human remains found in the burnt stone mounds and the earthen mounds of Rice Lake—is to overlook the fact that actions are shaped by the immediate experience of living in, and moving through, the world and by interaction with its physical features and the other

human and non-human creatures that dwell therein and have left traces of their own actions and understandings.

Thus, as a broad class of feature, the Quinte and Perch Lake burnt stone mounds may subsume the products of a variety of activities. Answering the question as to whether they were "just" food processing sites, hut rings, burial sites, sweat lodges, or the remains of some form of fire ceremonialism must await further detailed investigation. Nevertheless, it is clear that they represent a hitherto oversimplified, if not neglected, aspect of the late Middle Woodland subsistence-settlement systems of the eastern Lake Ontario drainage basin. Many aspects of the Middle Woodland period in this region, and for the balance of the lower Great Lakes, remain poorly understood, but in general it seems that subsistence-settlement systems during this time were characterized by microbands engaged in annual cycles of movement based on the seasonal availability of plants, fish and game within a comparatively small area, such as a particular drainage basin. Seasonal population amalgamations at locales that were particularly rich in resources were important venues at which social ties between families could be established or reaffirmed.

Such a system of mobility would have required a diversity of seasonal processing or industrial sites where specific tasks could be carried out and which were undoubtedly equipped with the fixtures and caches of materials that were necessary to complete the work (e.g., Filios 1999:129-134). This fact alone may account for the apparent frequency and density of features in the Quinte and Perch Lake areas noted at the turn of the nineteenth century. Likewise, the reports of paired or conjoined mounds may indicate continuity in the occupation or exploitation of certain locales, as once a processing site became too choked with debris to operate effectively it was replaced by another nearby. It is also possible that such pairs represent the simultaneous activities of different task groups, or that different, but complementary activities were carried out simultaneously by a single group. The seemingly restricted distribution of these features within the eastern Ontario basin

also begs the question of whether these local populations had developed subsistence practices that were unique to the region, or were guaranteed greater archaeological visibility due to geological conditions, later European settlement history of the region, or some other factor.

In any case, throughout the course of the annual round, task groups of variable composition—be they gender- or kinship-based or otherwise defined—would have dispersed to such locations, investing meaning in these places. Places, the paths that linked them, and the historical and social associations that they recall, together form the mythologized and anthropomorphized landscapes (Bender 1992:742) that are inextricably tied to ideas of community. They served as the maps of a community's history. The Quinte and Perch Lake burnt stone mounds were parts of these maps during the later Middle Woodland. If we are to read these maps anew, the burnt stone mounds must be examined in concert with other sites of the period.

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Notes

¹ Richard B. Johnston, of Trent University, may have tested a few of the Quinte mounds (Barber 1976:20), however, this suggestion is not borne out by the available archival evidence and may simply reflect confusion with other Middle Woodland mounds (Susan Jamieson, personal communication 2002).

² Compare, for instance, the descriptions provided by Kenyon (1986:7-9) and Wright (1999:680), which are based exclusively on Boyle's (1897) précis of Wallbridge's article.

³ A pilot project of mound survey and test excavation in the Perch Lake area, under the co-direction of Julieann Van Nest, of the New York State Museum, and Elena Ponomarenko, of the Canadian Museum of Civilization, represents the first stage in the process of acquiring new and detailed information on these sites.

⁴ Again, it should be noted that Marvin's account differed somewhat. He stated that there was "no disturbance of the soil below the level of the natural [ground] surface" and that such rock as was to be found consisted of small fragments of local limestone (Marvin 1887:59).

⁵ By "primary" burial is meant an interment made prior to or at the same time as the erection of the mound, whereas an "intrusive" or "secondary" burial is one that took place sometime after the mound had been constructed.

⁶ Other expeditions to the Perch Lake mounds were mounted, but these were desultory and very poorly documented (Lennon 1970:7-8).

⁷ It is interesting to note that Wright did not propose the sweat lodge reinterpretation for a similar feature documented at the Late Archaic Knechtel I site in Bruce County (cf. Wright 1972:5, 1995:243).

⁸ *Fulachta* is the plural form. The singular is *fulacht*.

⁹ The estimate of a maximum of 15 litres is based on a complete vessel of classic Middle Woodland form (conoidal body and conical base) but bearing later decorative attributes from the Peace Bridge site in Fort Erie, Ontario. Carbonized encrustations from the vessel interior were A.M.S. dated to 1330±60 B.P. (I-5243), calibrating to A.D. 675, with a range of 625-860 at 2-sigma (Pihl 1997:404-405; Robertson et al. 1997:501-502). This vessel, which measures 23.5 cm in diameter at the orifice and 37 cm in height, is likely at the upper end of the size range for Middle Woodland (Vinette 2) vessels, if not somewhat larger (Robert Pihl, personal communication 2002).

¹⁰ The possibility of hot rocks exploding on contact with water and shattering the container was likely less of a danger. During O'Kelly's experiments, for example, it was noted that while the heated rocks might crack upon being immersed, they did not shatter. Rather they tended to break while being handled, either when being removed from the liquid or when placed back in the fire to be reheated (O'Kelly 1953:121).

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