

THE CANADIAN INSTITUTE AND THE ORIGINS
OF THE ONTARIO ARCHAEOLOGICAL TRADITION
1851-1884

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ABSTRACT

Although David Boyle (1842-1911) is credited with fully developing the Classificatory-Descriptive Period of Ontario archaeology after 1884, his precursors at the Canadian Institute laid the foundation for a scientific archaeological tradition in Ontario. Between 1851 and 1884 Institute members tried to replace the purely speculative and antiquarian approach to archaeology by articulating a scientific rationale for the emerging discipline, by introducing advanced methods and procedures, and by opening the pages of the *Canadian Journal* to those influences giving rise to a scientific archaeology on both sides of the Atlantic. The first attempts to establish an Ontario archaeological museum and to undertake site inventory also occurred in this period.

INTRODUCTION

Ontario archaeologists are generally aware that during the second half of the nineteenth century, the Canadian Institute in Toronto played a noteworthy role in the development of their discipline. It was under the auspices of this organization, for instance, that David Boyle originally established his Ontario Archaeological Museum and launched what has been properly described as "the first archeological work in Ontario which may safely be called scientific" (Kidd 1952:71; Noble 1972:16). While Boyle's invaluable contributions have been briefly acknowledged in the several short historical surveys of Canadian archaeological endeavour (Jenness 1932; Kidd 1952; Noble 1972), still relatively little is known about the work of his precursors at the Institute. Few scholars realize that by the time Boyle joined the Canadian Institute in 1884 it had already made a significant contribution to the development of Ontario archaeology by setting into motion the transition from a period of armchair speculation to what Gordon Willey and Jeremy Sabloff (1980) have called the "Classificatory-Descriptive Period" of American archaeology with its pronounced scientific attitudes and incipient professionalism. The purpose of this paper, then, is to fill that lacuna in the historical record by tracing the early efforts of the Institute's members to lay the foundation for a scientific archaeological tradition in Ontario between 1851, when the Institute received its charter, and 1884, when David Boyle became its curator-archaeologist.

ONTARIO ARCHAEOLOGY AT MID-CENTURY

Incorporated by royal charter in 1851, the Canadian Institute had as its goals the "general advancement of the Physical Sciences, the Arts and Manufactures...; and more particularly...the acquisition of those branches of Knowledge...connected with the Professions of Surveying, Engineering, and Architecture" (Wallace 1949:131). It was the offspring of the general mid-nineteenth century faith in science as a determinant of social and economic progress. For many of the founders of the Institute, mostly representatives of Toronto's social, economic and intellectual elites, science meant railway technology above all else; it promised to consolidate their city's place as the transportation hub of Canada West, and conjured up visions of Northwest

expansion, trade and commerce, and a national industrial future. Through science, they noted confidently in their charter, Canadians would be able "[to open] up the Wilderness and [prepare] the country for the pursuit of the Agriculturist", expand "the means of production and of traffic both for external and internal trade", and develop "the Resources,...Industrial Productions and Commerce of the Country."

With the teaching of science in the provincial universities limited to medicine and "natural philosophy" (nowhere was engineering to be found in the curriculum in 1850), Canadian Institute members saw themselves helping to fill a gap in the educational system. To this end, the basis of a science library was formed, and greatly expanded when the Toronto Athenaeum, a combination literary association and commercial news room, amalgamated with the Institute in 1855. During the winter meeting schedule, the diverse and talented members prepared original papers for discussion on various pure and applied science topics, and less frequently on anthropological, archaeological and literary subjects. The more important of these papers were published in the monthly *Canadian Journal* (CJ), which first appeared in 1852. This valuable publication provided a record of the transactions of the Institute, and kept the members informed of scientific developments elsewhere in the world. Finally, the members expected to contribute to the cultural life of the Canadas by forming a general science museum specializing in "Architecture and Engineering, Natural History and Botany, Mineralogy and Geology, Indian Antiquities, and Arts and Manufactures" (CJ 1:98). The museum would serve a dual "nationalist" purpose by providing the population of Canada West with a sense of themselves both in space (through the sciences such as geology, geography, and biology), and in time (through history and archaeology).

Such activities were not peculiar to Torontonians. Scientific or learned societies akin to the Canadian Institute were common in other countries, and had already emerged, or would soon be established, in major urban centres across British North America. Since 1824 Quebec City had its Literary and Historical Society of Quebec, the members of which sometimes wrote and published on scientific themes, particularly geology. The Natural History Society of Montreal, founded in 1827, expanded its usefulness in 1857 when it assumed control of the periodical, the *Canadian Naturalist and Geologist*, established the year before in Ottawa by E. Billings. In Halifax, the Nova Scotia Literary and Scientific Society, created in 1850, evolved into the Nova Scotian Institute of Science in 1862, the same year that the Natural History Society of New Brunswick appeared in St. John. People in all these places shared a common need for a medium to disseminate information and foster a greater consciousness of their respective regions, and to provide a forum for the discussion of provincial and world scientific problems and discoveries. Significantly, in almost all the provinces, as in others countries, archaeology was given a decided fillip by the journals, museums and research launched under the auspices of these scientific groups (Cole 1973; Connolly 1977; Noble 1972).

Prior to 1850, however, intelligent people in Canada West lacked the necessary fund of knowledge, the broad research base of archaeological materials, upon which to posit scientifically demonstrable hypotheses about the origin of the Amerindians, or the prehistoric peoples who had fashioned the archaeological specimens frequently being unearthed. The Reverend L. C. Kearney, a Roman Catholic cleric in St. Thomas, in 1843, summed up what was typical of current speculative thinking on these matters among the better-educated segment of the community. "Some antiquarians are of the opinion," he wrote, "that [the Amerindians] are descended from the Scythians, and indeed the cruelty and ferocity they inflict upon whatever prisoners they take was in agreement with the most authentic records of that warlike and barbarous people. Others believe that they may have been a colony from ancient Rome, whilst some are to be found who say that they were once a learned, warlike and commercial people, but after a long residence degenerated into their present state of degradation. Fortifications are to be met with in several

parts of Canada, and about them are to be found helmets, spears and other military weapons, as well as pottery and several other articles, which prove...that Canada was formerly inhabited by some race of men of far superior intelligence in the art of war and civilization to the present aborigines." Based on his analysis of linguistic similarities between "the Hebrew and Indian languages, "Kearney arrived at his own fabulous conclusion, quite popular at the time, that "the Indians of the continent are descended from the two lost tribes of Israel which the 'Sacred Volume' informs us separated from the other ten" (Boyle 1900: 164-165).

A major development arousing the passions of such as the Reverend Kearney was the extension into British North America from the United States of the myth of the Mound Builders. Since the late eighteenth century, American antiquarians had attributed the mounds which were to be found in their greatest concentration in the Ohio and Mississippi River Valleys (particularly in the present states of Ohio, Illinois, Indiana and Missouri), to a great vanished race. Canadians like Kearney eagerly joined in the mythmaking since they were on the fringe of the northern mound zone which stretched from western New York and Ontario into Michigan, Wisconsin, Iowa, Nebraska and Manitoba (then Red River). In the intellectual climate of North America at mid-century, few people were prepared to credit the Amerindian tribes or their ancestors with the intelligence, or the degree of civilization required to construct such elaborate earthworks. After all, as Kearney noted, the Indians themselves had no explanation, no traditions, which accounted for the origins of the mounds.

The most recent and exhaustive study of this subject by Robert Silverberg (1968) suggests that the myth also developed for deep sociological and nationalist reasons. The concept of a vanished race of great antiquity satisfied the yearning in the New World for an ancient past equal to that of Europe. Endless numbers of erstwhile scholars ferreted out information from the Old Testament, the literature of classical Greece and Rome, and elsewhere to establish connections between the lost race of Mound Builders and ancient cultures in the Eastern Hemisphere. Thus, "the discovery of the mounds of North America provided a link to Herodotus and Homer, to Rome and the Vikings, to England's barrows, to all the mounds of Europe and Asia that had been known so long." As for the question who were the Mound Builders, chairbound philosophers gave full rein to their imagination and hypothesized an astonishing range of possibilities including "giants, or white men, or Israelites, or Danes, or Toltecs or giant white Jewish Toltec Vikings" (Silverberg 1968: 6, 57, 112-132). Even E. G. Squier and E. H. Davis, in *their Ancient Monuments of the Mississippi Valley* (1848), a work of undisputed significance as one of the studies that marked the beginning of the end of the Speculative Period in American archaeology, fell victim to the myth. After providing an outstanding and detailed record and description of the Ohio mounds and other earthworks, the authors concluded that the American Indians were incapable of erecting the mounds, or of fashioning the elegant pottery, the artwork of the effigy pipes, the finely-wrought chipped weapon points, or the metal implements found during excavation. Squier and Davis slipped further into unscientific conjecture when they argued that "hostile savage hordes" from the northeast drove the "less warlike" Mound Builders southward, to Mexico, where their civilization "attained its height" (Squier and Davis 1848:44, 188, 242).

The myth of the Mound Builders, argues Silverberg, also had a dark side. It conveniently salvaged the conscience of white Americans in their bloody and ruthless relationship with the Amerindian populations; indeed, the myth almost seemed necessary to justify the "century-long campaign of genocide" carried out against the American Indians by the white, Christian settlers. To those who had accepted the idea of a vanished race, the Indians—usually viewed as treacherous, red-skinned savages who impeded progress—were also intruders in the American west who had destroyed the superior Mound Builders' civilization. "What had been a simple war of conquest against the Indians now could be construed as a war of vengeance on behalf of that great

and martyred ancient culture" (Silverberg 1968:58). Fueled by such powerful considerations, the myth of the Mound Builders died hard. It would not be laid to rest until century's end, after a series of extensive studies culminating in Cyrus Thomas' *Report of the Mound Explorations of the Bureau of Ethnology* (1894) for the Smithsonian Institution.

The dominance of speculative thought in archaeological related discussions in the Canadas prior to 1850, and indeed throughout North America, can be attributed to other factors. No systematic site exploration or excavation had yet been conducted in Canada West. Only on rare occasions did a serious amateur—the Reverend P. Chazelle in 1842 and the Reverend Felix Martin in 1855 for example—attempt site identification of Jesuit Missions in Huronia (Hunter 1899:56). What typically passed for field work in this early period occurred on a random basis, undertaken by antiquarian relic hunters who swooped down on sites accidentally unearthed by agriculturalists as in the case of the Call Farm ossuary near Hamilton, in 1836; or by construction gangs, as in Bytown (Ottawa) where workers building a suspension bridge discovered a burial site during the summer of 1843 (CJ I:160; Noble 1972:15). That these finds were even recorded years after the fact was the exception rather than the rule; countless other sites and ossuaries were senselessly destroyed, left undocumented, the victims of local "pothunters." Without a substantial and reliable store of archaeological evidence available for study and comparison, data upon which to build and to test hypotheses, there was really no alternative to guesswork when it came to reconstructing the prehistoric past in North America. Moreover, in Canada West, culturally immature and still undergoing its pioneer phase of settlement prior to 1850, a lack of museums and periodical literature impeded the development of a scientific archaeology. Particularly without journals, archaeological finds went unrecorded, with the result that those few people interested in the serious pursuit of prehistory were denied a factual basis for generalizing and scientific study.

Just as significant as the want of an adequate foundation of archaeological data, and journals, was the absence of European models of scientific reasoning, models which would eventually challenge the theological interpretations of natural and human history. A systematic and scientifically based archaeological tradition awaited the general acceptance among the North American learned community of many currents of thought; these included Lyell's geological principles, the knowledge of the Danish Three-Age system, the archaeological methods and theories of Thomsen and Worsaae, the recognition of the great antiquity of man following the work of Boucher de Perthes and Pengelly, and, of course, the impact of the Darwinian revolution (Daniel 1975; Willey and Sabloff 1980). Until these intellectual impulses crossed the Atlantic, theological explanations, conjecture, and the *belles-lettres* approach would dominate writing pertaining to prehistory. It was the transfer of these European ideas and intellectual developments, and the concomitant burgeoning of science and scientific thought, that became one of the hallmarks of the subsequent Classificatory-Descriptive Period of American archaeology. In Ontario this phase began with the incorporation of the Canadian Institute and publication of the *Canadian Journal*.

THE SCIENTIFIC IMPULSE

It might well be argued that the council of the Canadian Institute launched Ontario's Classificatory Descriptive Period on June 12, 1852, this being the date affixed to a widely disseminated circular enjoining interested parties to answer the following questions on mounds, artifacts, petroglyphs, and aboriginal place names in their localities (CJI:25):

1. Name of township and number of lot in which any Intrenchment or Mound exists.
2. The area and dimensions, from actual measurement, and if possible, a plan, with sections.

3. A general description of the situation and neighbourhood.
4. Are there any trees growing on the artificial earthwork, if so, their size, the number of rings of annual growth in the largest stump to be found ? To cut a tree down to ascertain this fact, unless they are numerous, would be to destroy a very valuable standing evidence to the antiquity of the work.
5. Are there still, or were there, previously to clearing, trees of large size in the area of the work ?
6. Is the place known to the Indians in the neighbourhood by any name ? Have they any traditions respecting it ?
7. Are stone axes, arrow-heads, weapons or utensils, ever ploughed up in the vicinity ? Is broken pottery common ? Have the remains of concealed stores been discovered ? Specimens of any of these objects will be highly valued.
8. Are there evidences of the place having been surrounded with posts or pickets ?
9. Have utensils or weapons of copper or iron ever been discovered, leading to the inference that the place was occupied since the intercourse of the natives with Europeans began ?
10. Specimens of Indian skulls or crania having evidence of antiquity will be valued. But the Council distinctly disown any wish or desire to disturb native burial places of comparatively recent date, and strongly recommend that they be treated with respect.
11. Are there any mounds or tumuli of artificial construction, or any mounds or elevations which from their regularity suggest a suspicion of such an origin, if so, state the same particulars respecting them ?
12. Are there any local names of Indian origin in your township or neighbourhood; if so, a list of them, indicating the language to which they belong, their correct pronunciation, their interpretation or meaning, and the local circumstances on which they may appear to be founded, will be highly acceptable ?
13. Copies of any noteworthy native drawings or writings, such as those existing on what are called the pictured rocks of Lake Superior and Lake Huron, and generally drawings of any objects connected with the subjects of these enquiries, will be thankfully received.

This circular, which reflected a distinct change in scientific outlook and attitude, was compiled by Sandford Fleming (Boyle 1907:12), a noted engineer and railway builder, who had been prompted to conduct the archaeological survey by two major considerations. The first was the accelerating frequency of discoveries of ossuaries and village sites by railway navvies, and farmers, as Canada West underwent its railway era and a period of intensive agricultural settlement. The second and more immediate reason was the publication of E.G. Squier's *Aboriginal Monuments of the State of New York* (1849) by the Smithsonian Institution. Squier had revealed that in the region to the south of Lake Ontario in western New York, mounds existed in considerable numbers. The council of the newly-incorporated Canadian Institute, eager to emulate the work of the prestigious Smithsonian Institution, wondered to what extent the mound zone extended into their province. "Upper Canada," Fleming explained in his circular, "a part of the same region geographically, and peopled originally by the same, or nearly allied races, remains to a great degree *a terra incognita* with respect to this [Squier's] enquiry." The editor of the *Canadian Journal*, Henry Y. Hind, then a professor of Chemistry and Geology at the Toronto Normal School, urged the members to respond to the circular, while promising "to introduce into the Journal wood-cuts of any relic possessing peculiar interest, when transmitted for the inspection of the Institute, or as a contribution to the Museum" (CJ I: 25).

Regrettably, the responses that were received have not been preserved, although the council did report in December, 1852, of "favourable results" to the questionnaires (CJ I:98). It is clear, however, that this first effort to compile a site inventory for Ontario, and to publish the findings for comparative analysis, was not successful. A half dozen individuals donated small numbers of artifacts, enough to form the "nucleus of an archaeological collection" (Boyle 1893:1), but because the survey was not followed up in ensuing years, few donations were subsequently received. Not until David Boyle reissued virtually the identical circular in 1885 did the work of recording the archaeological sites of the province recommence. The specimens donated in the early 1850s suffered a rude fate. They were placed on open shelves—many to be lost over the years—along with an assortment of natural science and geological specimens, engineering and architectural models. "The progress of the Museum has been necessarily slow," regretted the council in 1855, "owing to the state of uncertainty in which the Institute has been placed with respect to the necessary accommodation for the...specimens" (CJ III:364). The museum continued to languish for the same reason for thirty more years. During his term of office as president of the Institute from 1870 to 1876, the Reverend Henry Scadding of Holy Trinity Church, admitted that the University of Toronto had by then built up its own science museum, and had moved into the void that the Institute had intended to fill. "Nevertheless," argued Scadding, "there is a field which our Museum might [still] occupy. It might be made a repository of Canadian archaeological and historical objects" (Scadding 1873). Scadding was prophetic, but because of declining membership, limited funds, and a lack of space in the society's home—the converted Haworth house on the corner of Richmond and Clare (now Berti) Streets—his idea was not realized for another decade.

While the Canadian Institute experienced little success during its first thirty years of existence in building up a site inventory and establishing an archaeological collection, it still managed to serve as the major forum for those interested in archaeology, particularly through the pages of the *Canadian Journal*—the first publication in Canada to discuss archaeology on a regular basis—and the efforts of one man, Daniel Wilson. Scottish-born Wilson arrived in Canada in 1853 to assume the chair of History and English Literature at University College, Toronto. Almost immediately this industrious scholar, and future President of the University of Toronto (1880-1892), so astonishingly catholic in his intellectual pursuits (Trigger 1966), became a commanding presence on the Canadian Institute council, served twice as its president (1859-61, 1878-80), and edited the *Canadian Journal* from 1856 to 1859. Wilson's contribution to the development of Ontario archaeology lay primarily in his introduction of a scientific approach, and the international perspectives he brought to the fledgling discipline.

Wilson came to Canada West with the reputation of being one of Britain's leading prehistorians; in fact, it was Wilson who coined the word "prehistory." In his monumental compilation of Scottish antiquities, *Archaeology and Prehistoric Annals of Scotland* (1851), he had broken free from the restricted vision of those British antiquarians who insisted on linking all archaeological remains with historically-known peoples. Inspired by C. J. Thomsen's work in Scandinavia, Wilson became the first scholar to apply the Three-Age concept to British archaeology (Trigger 1966:6-7). In Canada West, he soon recognized that by observing the native peoples of North America, one could discover a great deal of the "essential characteristics of man," and of the "long-obliterated past of Britain's and Europe's infancy, which," he exclaimed, "was here reproduced in living reality before his eyes" (Wilson 1865:xxiii). He took up as his hobby anthropology in its widest sense, encompassing the fields of ethnology, prehistory, physical anthropology and linguistics, and published within ten years a broad synthesis of the culture history of the New World entitled *Prehistoric Man: Researches into the Origin of Civilisation in the Old and the New World* (1865). This book, wrote Bruce Trigger, "marked the shift of [Wilson's]"

interest from archaeology *per se* to the broader perspective of American anthropology," a fundamental cause of this shift being "the lack of antiquarian data in Canada to which Wilson could apply the typological approach he had employed in Scotland" (Trigger 1978:3). Archaeology's loss was anthropology's gain.

In *Prehistoric Man*, Wilson described archaeology as an indispensable handmaiden to anthropology: "...To reject the aid of archaeology in the progress of science, and especially of ethnological science," he wrote, "is to extinguish the lamp of the student when most dependent on its borrowed rays" (Wilson 1865:xix). He was perhaps the first Canadian-based writer to reject the amateur, dilettante and speculative nature of then current archaeology, and to articulate a purely scientific rationale for the emerging discipline. "...[The] object of the intelligent collector [of archaeological relics]," he wrote in the *Canadian Journal*, "is not the mere gratification of an aimless curiosity, or the accumulation of rarities of difficult acquisition, but the preservation of objects calculated to furnish valuable scientific or historical truths" (Wilson 1856b:519). Caution and moderation, he urged, must shape the written archaeological record. "Scientific truths," he explained in *Prehistoric Man*, "whatever be the interests they involve, can only be determined on scientific grounds; and on such only has any attempt been made to base them in this work" (Wilson 1865:607). As one reviewer noted, Wilson had been so careful to avoid "that spirit of heterodox speculation which has of late become a passion, a pet, a mania," that "on too many important questions the author leaves us in doubt as to his opinion" (McIlwraith 1964:130).

Although Wilson accomplished little fieldwork of his own, he was more aware than most of his contemporaries in North America of the need for standards of excavation technique, and did make an effort through the *Canadian Journal* to instruct others in this area. His immediate goal was to amass a collection of prehistoric Amerindian crania by soliciting donations from amateur collectors. However, his instructions also indicate that he sought to derive from the archaeological record every possible piece of information on prehistoric aboriginal culture. Wilson tried to pass on to his readers the basic principles essential to good excavation; he urged the preservation of everything found at a site, and the necessity of a complete and accurate description of all sites including the position of each artifact, no matter how trivial. His directions are important enough to quote at length since they represent one of the earliest examples of the extension to Canada of European models of excavation.

The ruder instruments of excavation such as the pickaxe and spade, should be laid aside as soon as any portion of a skull or skeleton has been exposed. The whole must then be cleared from the surrounding earth by means of some light implement, such as a garden trowel, with the assistance of the hand. In removing the earth strict attention should be paid to any small objects contained in it....The better to avoid any injury to the more essential parts, it is advisable...to pursue the final process of laying bare the skeleton, by proceeding from the feet towards the head. The bones ought not to be attempted to be removed from the inclosing [sic] soil when they indicate the slightest fragility, until the earth has been cautiously removed all round them, so as to admit of their being lifted out....

Care should also be taken to note all the circumstances attendant on the discovery, which are likely to throw any light on the characteristics of the race, their mode of sepulture, or their arts, customs, or habits. Nothing should be trusted to memory, but all the facts noted at the moment and on the spot. Some of the most important of the facts to be observed and noted down are: the position of the body, whether lying at full length, on the back or side, or with the knees bent or drawn up; also the direction of the body, and the position of the head in relation to the points of the compass.

Next the nature and relative position of any relics, such as urns, implements, weapons, &c., should be carefully noted; and among such, particular attention is to be paid to animal remains, such as the bones and skulls, horns or teeth, of beasts, birds and fishes. It is a common fashion among savage tribes to hold a burial feast over the grave of the dead, and such relics may tend to throw considerable light on the habits of the people, as well as on the period to which they belong....

As such relics loose [sic] much of their value when the locality and circumstances of their discovery are unknown, it is extremely desirable not only to attach to each skull, package of bones, or accompanying relics, the name and description of the locality where they have been found, but also as soon as possible to mark this neatly and indelibly upon the object itself... (Wilson 1855:347).

These theoretical procedures and standards of excavation and written description were not surpassed in actual practice by Ontario archaeologists until well into the next century.

Wilson carried over the scientific method into his analysis of artifacts. He subjected the Brockville copper implements, discovered in 1847 during the construction of the St. Lawrence Canal at "Les Galops Rapids," to chemical tests in a laboratory. The analysis showed no signs of artificial hardening, and belied those who argued in favour of a long forgotten Indian technology for smelting copper. Wilson's tour of the old copper mines of Lake Superior on Keweenaw Point during 1855 convinced him of the antiquity of the native use of copper, and he credited to the availability of pure copper in its natural state its early use by primitive hunters and gatherers. As for those who first worked the quarries, Wilson slipped into speculation and suggested that they were contemporaries of the Mound Builders who were either wiped out by pestilence or driven out by the intrusion of the present "Red Indian Race" (Wilson 1856a). Wilson's most important scholarly research work that spanned both archaeology and physical anthropology, were his osteological studies. In a seminal article published in the *Canadian Journal*, "Brain-Weight and Size in Relation to Relative Capacity of Races," he argued that cranial capacity was not a dependable means for determining the relative intelligence or ability of various races or individuals (Wilson 1876; Trigger 1966:17). In a similar study, he attacked the generally accepted theory of the "Supposed Prevalence of One Cranial Type Throughout the American Aborigines," and challenged the idea of the homogeneity of the North American Indian (Wilson 1857b).

Not only did Wilson bring to Ontario archaeology a scientific rationale and promote advanced methods and procedures for the time, but as editor he saw to it that the *Canadian Journal* opened its pages to those influences giving rise to a systematic archaeology on both sides of the Atlantic. Some of the articles he included in the journal were methodological, such as the "Value of Natural History to the Archaeologist" (CJ I:191), an excerpt from a British source which detailed how the traces of flora and fauna in ancient sites were valuable clues to the diet, life style, and environmental conditions enjoyed by prehistoric man. The journal also featured translations from the publications of eminent European archaeologist—M. E. Lartet (1861), Lartet and H. Christy (1863), A. Morlot (1863), and M. de Vibraye (1864)—all in support of the geological proofs of the antiquity of man. Charles Lyell's celebrated speech in defence of the findings of Boucher de Perthes and the British cave finds, given to the Aberdeen meeting of the British Association for the Advancement of Science in 1859, also found a place in the journal (CJ IV:496-500). Analytical reviews, sometimes hostile, of major books published by Darwin, Huxley, Lyell, and Ernst Haeckel on evolutionary theory as it pertained to man became regular fare in the journal as well (CJ VIII:378-390, XV: 231-248).

The *Canadian Journal* also became the first periodical to record the results of archaeological discoveries and field research in Ontario. This included a certain amount of backtracking since

Institute members were encouraged to submit recollections of previous antiquarian activities—the opening of ossuaries, for instance, which occurred as early as the 1830s (CJ I:160). Reports of new finds and descriptions of artifacts, most often unearthed accidentally by agriculturalists and reported to Wilson, began to appear on a regular basis. Most of these records subsequently proved of relatively little value to modern archaeologists, but on a rare occasion there appeared an article of more than passing interest. In September, 1860, for example, Thomas Campbell Wallbridge described the existence of "perhaps one hundred distinct mounds" along some eight miles of the Bay of Quinte shoreline in Ameliasburg Township. When David Boyle re-examined the area some thirty-eight years later, he could find few traces of these mounds, most having been obliterated by extensive cultivation (Boyle 1897:89-90). Fortunately, Wallbridge provided sufficient detail to enable modern archaeologists to suggest that these mounds were evidence of Middle Woodland Point Peninsula people. .

Daniel Wilson himself wrote numerous other articles on archaeological subjects; his strength lay in synthesis and in broad sweeping comparative analysis, his narratives casually moving back and forth across the archaeological and anthropological developments of two hemispheres. Such was the case with his manuscripts on "Some Ethnological Phases of Conchology" (Wilson 1858), and "Narcotic Usages and Superstitions of the Old and New World" (Wilson 1857a). In the latter, Wilson focussed on the artistically designed effigy pipes unearthed by Squier and Davis in the Ohio mounds, and developed the thesis that as "insignificant, and even puerile, as the subject of the tobacco pipe appears, it assumes an importance in many respects only second to that of the osteological remains of the ancient races of this continent when viewed as part of the materials of its unwritten history" (Wilson 1857a:259). Wilson, who considered the work of Denmark's C. J. Thomsen as "the foundation of archaeology as a science" (Trigger 1966:7), enjoyed expounding upon the Danish Three-Age System. A visit to Scandinavia, in 1878, increased his admiration for their stratigraphical principles of excavation and ability to establish a relative chronology. Subsequently, in the late 'seventies and early 'eighties, he could be found lecturing regularly on this subject, tracing the historical development of archaeology from Thomsen and Worsaae, through Boucher de Perthes, the European cave finds, Schliemann's discovery of Homeric Trov, to Charles Abbott's efforts in the Trenton gravels of New Jersey (Royal Ontario Museum, *Ethnology*. George Laidlaw Scrapbook II, Toronto *Globe*: Oct. 21, 1878, Jan. 19, 1882, and Jan. 13, 1883; hereafter Laidlaw scrapbook).

Without question, then, this was an important period in the development of archaeology in Ontario. Inspired by such as Fleming and Wilson, the Canadian Institute had initiated the transition from speculation and antiquarianism to a more scientific archaeology. Through the *Canadian Journal*, they had entrenched the concept of archaeology as a science, promoted standards of excavation, kept the province abreast of recent events and theories in Europe and elsewhere, and attempted albeit unsuccessfully, to undertake a site inventory and establish a museum. Wilson's influence, moreover, went beyond the confines of Ontario. The great popularizer of archaeology, Sir John Lubbock, drew extensively upon Wilson's work for his chapter on North American prehistory in his widely read *Prehistoric Times*, which went through seven editions between 1865 and 1913. Even more significant, Wilson's *Prehistoric Man* and *Prehistoric Annals of Scotland* seem to have had a considerable influence on the development of American archaeology since they were used as text books by many students in the United States (Starr 1892:307).

Notwithstanding the fundamental importance of these early contributions, the fact remains that only a beginning had been made to rescue archaeology from the clutches of the antiquarians. In 1880, there still existed no major museum collection representative of Ontario prehistory. No

publication was yet devoted exclusively to the description, classification and interpretation of the archaeological record. Even the *Canadian Journal* under the editorship of Henry Scadding from 1869 to 1878, tended to emphasize local history at the expense of the archaeological and anthropological studies of the Wilson years. Armchair speculation and "pothunting" still prevailed; the unearthing of a burial pit inevitably gave rise to a stampede of weekend relic hunters. Only two or three competent amateur field men toiled in the province during the 1860s and 1870s. R. A. Hirschfelder, professor of Oriental Literature at University College, salvaged a considerable amount of material and donated his substantial collection to the new Dominion Museum in Ottawa in the early 1880s. Hirschfelder also sent samples of Huron artifacts to the Smithsonian Institution and to other scientific museums on both sides of the Atlantic (Laidlaw scrapbook II, Toronto *Globe*: April 2, 1883; Toronto *Mail*: Feb. 23, 1885). Another field man, Professor Charles Joseph Taché, a physiologist at Laval University, spent five summers in Huronia during the early 1860s excavating ossuaries and village sites. He carted his findings back to Quebec City, but declined to publish his conclusions (Noble 1972:15). On the whole, David Boyle was close to the truth when he remarked as late as 1886 that "hitherto, nothing has been done here [in Ontario] beyond a little mercenary, pettifogging collections, without system, and without any aim outside of how much the 'specimens' would fetch in \$ and ¢" (Peabody Museum of Archaeology and Ethnology, Boyle to F. W. Putnam, Nov. 22, 1886).

Still, there were positive signs of change in the air. Public interest in matters archaeological, a prerequisite for government support, was on the rise by the late 1870s. Wilson and the Canadian Institute could take some of the credit for this development. More generally, dozens of popular books and periodicals published on both sides of the Atlantic stimulated a wider interest in prehistory, particularly in the Mound Builder controversy. The brilliantly written and imaginative books of the New England historian, Francis Parkman, whose eight volume series *France and England in North America* appeared between 1851 and 1892, also supported the archaeological impulse in Ontario by quickening the public's enthusiasm for the history of New France. Furthermore, the daily newspapers began to take a keen interest in everything related to the subject of Indian and world prehistory. The regional and the Toronto press eagerly printed the details of any new find; for example, scarcely a month slipped by during the late 'seventies, when either the *Globe* or the *Mail* did not inform its readers of recent archaeological developments abroad, whether in Ontario, North and South America, Britain, Europe, Russia, the Near and Middle East (Laidlaw scrapbooks I and II).

Closer to home, events in Manitoba stoked up interest in the Mound Builder issue as reports of Dr. M. P. Schultz's excavations into the mounds that dotted the banks of the Red River near Winnipeg came to the public's attention. Thanks to Schultz, and shortly after Charles N. Bell and George Bryce of the recently formed Manitoba Historical and Scientific Society, the myth of the "vanished race" took firm root in intellectual circles in that province. Following on Schultz's work in 1878, the Manitoba Historical and Scientific Society organized a major excavation of several mounds in October, 1879, in association with Robert Bell of the Geological Survey. Ontarians followed their activities with great curiosity, and not without *a soupçon* of jealousy. Stung into action by the example of the Manitobans, Daniel Wilson, during his second term as president of the Canadian Institute (1878-80), urged his colleagues to organize similar field expeditions with a view to forming "a museum of the primitive history of Canada," and to approaching the government for funds (Laidlaw scrapbook I, Toronto *Globe*: Nov. 3, 1879, and March 9, 1882). Given the questions being asked in the press as to the relationship of Ontario's prehistoric past to the remarkable discoveries being made elsewhere, and given the example of archaeological progress in other jurisdictions, it was only a matter of time before other voices would be heard demanding that the Ontario government assume its cultural responsibilities and fund

archaeological investigations and museum activity (Laidlaw scrapbook I, *Canada Illustrated News*: Jan. 20, 1877; Walkerton *Telescope*: Jan. 4, 1878).

This, then, was the state of archaeology and the intellectual climate of opinion on matters pertaining to prehistory in Ontario when David Boyle joined the Canadian Institute in 1884. It was a climate suited for an activist like Boyle, a person disinclined to sit by idly and merely talk of museums and government subsidization. Significantly, even before leaving Elora, where he taught public school during the 1870s, he had taken a noteworthy initiative on behalf of archaeology in the province. Towards the end of December, 1879, he pushed a resolution through the Elora Natural History, Scientific and Literary Society urging the provincial government to subsidize "a Provincial Museum for the preservation of Indian relics and Canadian Antiquities" since "there now existed no institution of the kind in the Dominion." The time seemed opportune because "a large Parliament House was soon to be erected [in Toronto at Queen's Park] and at a small additional expense this accomodation could be provided" (*Elora Lightning Express*: Dec. 25, 1879). Boyle's major argument for such a publicly funded museum was extremely important, since he was one of the first to express what can only be described as Ontario's version of "the birth of a conscience" about the expropriation of antiquities (Daniel 1975). Boyle denounced the fact that "many precious relics of a bygone system of civilization were being removed from the country simply for want of a place to accommodate them..., and even Professor Wilson had...[sent] a large number of these relics to the Museum at Edinburgh" (*Elora Lightning Express*: Dec. 25, 1879). One is reminded here of the arguments posited by Mariette in Egypt, at the time the Director of the Egyptian National Service of Antiquities, who put an end to the uncontrolled exportation of Egyptian archaeological treasures. It was Mariette's obsession to see that these priceless relics found a permanent home in modern Egypt in the National Museum of Egyptian Antiquities, an institution of his own creation.

Not surprisingly, soon after arriving in Toronto, David Boyle determined to see that a publicly supported museum of Ontario archaeology became a reality at the Canadian Institute. This object gradually became his all-consuming enthusiasm. Over the next quarter century, he would build upon the foundation laid by Fleming, Wilson and other contributors to the *Canadian Journal*, and develop fully the Classificatory-Descriptive Phase of Ontario archaeology with its cautious scientific approach and incipient professionalism. But where his precursors had failed to undertake or to stimulate fieldwork, to build up a museum collection illustrative of Ontario's prehistoric past (an essential step for the development of scientific archaeology), and to establish a journal devoted exclusively to archaeology, David Boyle would succeed. Ontario archaeology, in short, was on the threshold of new possibilities.

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