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Cover Page Footnote

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Learning Cast up from the Mire: Archaeological Investigations of Schoolhouses in the Northeastern United States

James G. Gibb and April M. Beisaw

Common schools, often comprising a single room with one or two teachers, taught millions of children from the 1850s through the 1930s. They have provided source material for objective historical writings on education and inspired subjective literature on the school experiences of teachers and students. But as prominent as one-room schools have been in the North American experience, and in perceptions of rural 19th- and early 20th-century life, these ubiquitous structures have not found a place in the archaeological literature. This paper examines the archaeological potential of schoolhouse sites for providing useful information not otherwise available to historians, poets, and playwrights.

Les écoles communes, ne comportant souvent qu'une seule salle de classe ainsi qu'un ou deux enseignants, ont servi à la formation de millions d'enfants entre les années 1850s et 1930s. Elles ont servi de source pour des écrits historiques objectifs au sujet de l'éducation et ont inspiré des œuvres littéraires subjectives concernant l'expérience scolaire des enseignants et des élèves. Cependant, aussi présentes soient-elles dans l'expérience nord-américaine et dans la perception de la vie rurale du 19e et début 20e siècles, ces structures n'ont pas trouvé de place dans la littérature archéologique. Cet article examine le potentiel archéologique de sites d'écoles comme source d'informations utiles qui ne seraient autrement pas disponibles pour les historiens, les poètes et les dramaturges.

Introduction

Schoolhouses were unusual sights in North America during the late 18th century. Many probably would not have been recognized as schoolhouses, then or now, as schoolmasters generally convened classes in their private homes, as was the case for the 1746 Anne Arundel Free School (18AN6) located near Annapolis, Maryland (FIG. 1; Orr and Orr 1978). Some private academies, such as the Charlotte Hall Academy (18ST400) in St. Mary's County, Maryland, used domestic styles of architecture both to house students and instructors and to serve as classrooms (FIG. 2; Gibb 1989, 1990). In contrast, the 1836 Patapsco Female Institute (18HO143) in Ellicott City, near Baltimore, Maryland, adopted monumental architectural forms, comparable to those used by government offices and banks (Preston 1992; Gibb n.d.). District schools—organized and funded by towns and villages

prior to the establishment of state systems of education—employed a wide range of architectural forms. Some adhered to published designs (e.g., Foght 1918; McClintock and McClintock 1970b); others used designs similar to those of vernacular churches and houses.

By the late 19th century, schoolhouses had become one of the most common public buildings on the landscape, second only to houses of worship, and—with increasing state involvement—they became a recognizable architectural form throughout North America. They remained active on the landscape, functioning as schools from the 1850s until the school consolidation movement of the late 1890s through the 1930s. This movement led to multi-room schoolhouses staffed by certified, increasingly well-trained teachers specializing in particular grades and subjects. Multi-room buildings replaced one-room schoolhouses and became the prototypes of the modern school.



Figure 1. The Anne Arundel Free School, Anne Arundel County, Maryland.

Preserved in local folklore, poems (e.g., Whittier's *In School-Days* [1870]), autobiographies (e.g., Phillips 1948), and in village restorations, one-room schoolhouses once figured prominently in the history of American education and in the American imagination, but have received little attention in the archaeological literature. In general, physical preservation has been a problem, many of the roadside buildings having succumbed to 20th-century road widening. Others, as decaying, obsolete structures on publicly owned lands, were auctioned to contractors who moved or canni-

balized the buildings for materials. As a result, once common one-room schoolhouse sites are a rapidly dwindling resource; their value as archaeological data has only barely been explored, however (e.g., Bigelow and Nagel 1987; Peña 1992). A review of the few available technical reports on archaeological investigations of schoolhouse sites in the Northeastern United States has revealed a more troubling problem: there is no body of theory, methods, or specific historical questions that have been brought to bear on such sites, hence the integrity and information value of schoolhouse sites lacking standing structures are difficult to evaluate and, therefore, these institutional sites are unlikely to be preserved in the face of development projects.

This paper examines schoolhouse and academy sites that have been archaeologically tested in the Northeastern United States—including examples from Massachusetts, New York State, Delaware, and Maryland—describing what the investigators found and their assessments of the potential of these sites to answer significant historical and anthropological questions. The sample is opportunistic, drawn from available limited distribution technical reports and a very few published papers. It does include, however, a range of



Figure 2. The 1803 Principal's House, Charlotte Hall School in St. Mary's County, Maryland.

school types, placing the one-room common schools of the late 19th and early 20th centuries into a broader research perspective. A brief history of American education during the late 19th and early 20th centuries provides the larger context in which the sites and the data are evaluated.

The Common School Movement in Maryland, 1864–1916

Since here we focus on the anthropological and historical questions that might be asked of rural common schools of the late 19th and early 20th centuries, in this section we briefly address developments from the late Colonial Period to the end of the Civil War, and then describe in greater detail developments from 1864 to 1916. The latter date range reflects the passage of the two principal school laws that established the modern Maryland school system. Even a brief treatment of the educational histories of other states, not to mention the Canadian provinces, would require another, far lengthier work. The reader should examine Button and Provenzo’s 1983 history of the modern school system in the United States, from its roots in the Colonial Period to the Berkeley Student Uprising of 1964. Developments in Maryland, however, generally mirrored those of other states and provinces throughout North America, although they lagged behind those of the more decentralized school systems of New England and New York State and were more advanced than most of the more recently populated or rural western and southern states and Canadian provinces.

In the wake of several abortive attempts and ineffective acts dating to the late 17th century, the Maryland legislature passed a school law in 1723 that established organizational and funding mechanisms for the creation of “free schools” in each county for the “liberal and pious Education of the Youth of the Province.” Such schools were not “free” in the sense that students could attend without paying tuition, but rather free in their lack of affiliation with any Christian sect. The intent of the law was to ready free white males “for the discharge of their duties in the several stations and employments they may be called to

... either in regard to church or state” (*Archives of Maryland* 34: 388–389). The generally dispersed nature of Maryland’s colonial population and lack of adequate funds soon led to the consolidation of several county free schools into what became known as academies. These private, tuition-based institutions continued to receive government funding into the late 19th century, generally with the proviso that they provide a certain number of scholarships to worthy boys whose families lacked the means to pay tuition. The number of Maryland academies grew rapidly after the establishment of a school fund in 1813 and 1814 with monies from levies on state banks, and again from the bank levies of 1825 to 1844 (Browne and Vanorny n.d.: 9–10).

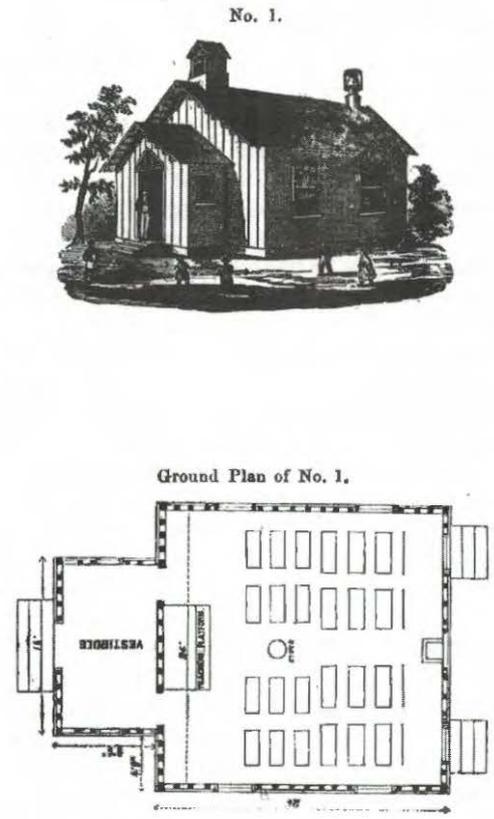


Figure 3. Van Bokkelen’s 1865 plan and elevation for Schoolhouse No. 1.

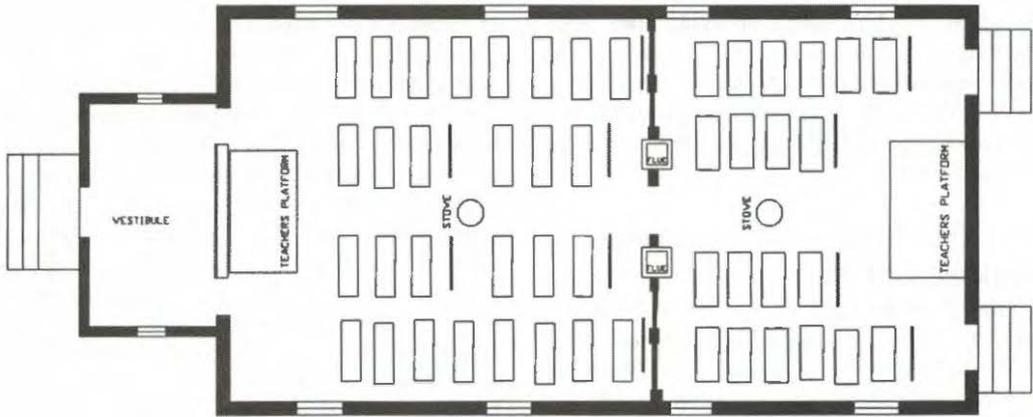


Figure 4. Van Bokkelen's 1865 plan for Schoolhouse No. 5.

During the academies' florescent period (the late Colonial Period through the beginning of the Civil War), the legislature attempted to enact and enforce several laws pertaining to public education, the most prominent attempts being the School Law of 1825 and discussions during the 1850 Constitutional Convention. The first effective steps towards universal public education in Maryland, however, did not occur until the adoption of the State Constitution of 1864 and passage of the School Law of 1865. This law, enabled by the new constitution, created a centralized statewide school system directed by a Superintendent of Public Instruction and a Board of Education and administered through county boards of school commissioners that, in turn, oversaw programs and schoolhouse maintenance through district school commissioners. The School Law established a State Normal School for the instruction of teachers and specified the creation of one high school in each county. It also provided for the raising of school funds through taxation and opened schools to all children, regardless of race, although the schools would be segregated and funded separately by the European and African-American communities. The Reverend Libertus van Bokkelen (1865), a noted educator and the first Superintendent of Public Instruction, required that all public-school houses be built in accordance with one of five plans (FIGS. 3, 4; TAB. 1).

Not all of the jurisdictions approved of the highly centralized system that governed the distribution of school funds, purchase of textbooks, and appointment of local school officials. The City of Baltimore, which had successfully developed its own school system prior to the adoption of the new state constitution, and several of the wealthier counties that were unwilling to underwrite poorer counties, railed against the new system. Changes wrought in the Constitution of 1867 and the School Law of 1868 revoked some aspects of the earlier law, dissolving the position of State Superintendent of Public Instruction and the State Board of Education, and placing nominal supervision of the system under the Principal of the State Normal School. The Board of State School Commissioners was reestablished in 1870 and renamed the State Board of Education in 1872, but the office of State Superintendent was not reinstated until 1900.

County boards of school supervisors assumed most of the control over education in their respective counties, operating through their chief executive officer, the County Examiner (titled County Superintendent of Public Education after 1904). They allocated funds, selected sites and designs for new schools, certified teachers, and generally established policy and managed funds. District school trustees managed their respective districts, insuring maintenance of buildings and textbooks, and reporting to the school commis-

Table 1. School house plans from Maryland State Education Department reports of 1865, 1874, and 1897.

Plan	Material	Classroom	Vestibule	Students
1	Frame	24 × 24 ft (7.3 × 7.3 m)	15 × 8.5 ft (4.6 × 2.6 m)	50
2	Frame	24 × 36 ft (7.3 × 11 m)	15 × 8.5 ft (4.6 × 2.6 m)	75
3	Brick	24.5 × 37 ft (7.5 × 11.3 m)	15.5 × 8.5 ft (4.7 × 2.6 m)	75
4	Stone	26 × 38 ft (7.9 × 11.6 m)	16.5 × 10 ft (5.0 × 3.0 m)	75
5	Frame	24 × 46 ft (7.3 × 14 m)	15 × 8.5 ft (4.6 × 2.6 m)	100
Oella	Stone (1873)	26 × 48 ft (7.9 × 14.6 m)	unreported	100
Oella	Frame addition (1897)	unreported	unreported	unreported

sioners. Trustees became less important as schools consolidated and one-room and two-room common schoolhouses were abandoned.

Maryland's School Law of 1916 effectively instituted mandatory education for European and African-American children, although still in segregated schools, fixed the school calendar at ten months per year, and established curricula for all grades. Rural depopulation, the increasingly wide use of electric inter-urban trains, streetcars, and automobiles, and expanding publicly funded road construction accelerated consolidation. County school boards built multi-room school buildings, filled them with hierarchically graded classes, and employed teachers specializing in specific grades and subjects.

Some Trends in American Education

Maryland's constitutional changes and school laws were influenced by international discussions among educators and philosophers about the benefits of universal education, pedagogy, and the physical plants in which students were taught. Discussions emphasizing schoolhouses and yards have the greatest bearing on archaeological practice, but who should be taught, by whom, and how, also have their archaeological manifestations. We briefly summarize some of the larger issues and developments and direct the reader to the various new works and reissues published by the Classics in Education Series of the Teachers College Press, Teachers College, Columbia University in New York, of which Henry Barnard's *School Architecture* (McClintock and McClintock 1970a) and Cremin's 1951 *The American Common School: An Historic Conception* are but two examples. Vassar's 1965 *Social History of American Education* in two vol-

umes reprints the writings of prominent politicians and educators in the United States on some of the most controversial educational issues of the day.

Thomas Jefferson's attitudes toward universal education are well known, at least in general: education is integral to good citizenship (Lee 1962). With progress towards true universal suffrage, government's responsibility to provide basic education to all became a constitutional mandate. Jefferson's successors, educators such as Henry Barnard and Horace Mann, saw education both as a means of self-growth and as an ameliorator of social distinction, a tool preserving the social fabric from being rent apart by distinctions of class and ethnicity (Button and Provenzo 1983: 84-134), and as a necessary foundation on which to create and amass wealth (Vassar 1965). Efforts at balancing individual rights and needs with the rights and needs of the community influenced educational practices and policies throughout the 19th and 20th centuries. Religion complicated this simple dichotomy, as proponents of religious education in schools, such as Benjamin Rush, envisioned a Christian commonwealth and universal primary education as a means of realizing that vision. The distinction between education as a wholly intellectual and liberalizing process and as a means of preparing young people for the practical demands of adult life increasingly permeated discussions in professional conferences, journals, and town halls, and most clearly manifested itself in the debate over the introduction of industrial, or manual, training into public schools from the 1880s onward.

Perhaps more influential in pedagogical practice were the philosophers and, eventually, psychologists who advanced theories as

to how children learn and how best to teach them. Johann Heinrich Pestalozzi criticized proponents of authoritarian models of instruction, models that relied on rote memorization compelled by physical punishment for poor performance. His methods emphasized the tactile and practical, and accommodated the natural genius of children. Joseph Lancaster's monitorial system was similarly non-authoritarian, teachers using older students to teach younger children. Neither of these experimental approaches, of course, supplanted the widely instituted process of lecture and recitation that prevailed in most rural schools of the district and common sort, but it would be equally inappropriate to characterize these schools as mills in which students memorized under threat of a birch switch (McClintock and McClintock 1970b: 2). Teachers, particularly those working in one- and two-room rural schools prior to centralization (pre-1860s) and consolidation (pre-1900), had a great deal of latitude in how and what they taught, subject largely to parental approval and the supervision of district commissioners and county superintendents. All teaching styles, and to a large extent the subject matter taught in schools, are reflected to some extent in the architecture, furnishing, arrangement, and landscaping of schools.

Schoolhouse architecture and schoolyard landscaping figure prominently in educational literature of the 19th century, most comprehensively and influentially through the published work of Henry Barnard. His *School Architecture* first appeared as a series of articles in the *Connecticut Common School Journal* between 1838 and 1840, before being collated and published as a book in 1842. His approach to the physical environment of schools and the relationship of pedagogy to the physical plant of education appeared in education treatises and annual reports for school and county boards of education nationwide throughout the latter half of the 19th century. For Barnard, "the great object of all regular school arrangements should be to wake up the spirit, and begin the work of self-culture as early and widely as possible" (Barnard in McClintock and McClintock 1970b: 78).

In the introduction to Barnard's reprinted book, the editors summarize Barnard's approach and its implications for researching educational history.

Architectural designs for schools are among the best sources, short of direct observation, for discovering what actually happens in a classroom. Any well-designed school should embody what is to go on within it. The designer takes into account the number, age, and character of the students and the instructional techniques the teacher will probably employ; hence the differences between individualized instruction, group recitation, the monitorial system, and departmentalized schooling are palpably exposed in the layout of classrooms designed for their use. (McClintock and McClintock 1970a: 1-2)

Barnard's adherence to the principle of fitting the building to its purpose is clearly seen in his critique of then extant school buildings throughout New England, decrying the deficiencies in interior arrangements, furnishings, lighting, heating, ventilation, siting, landscaping, and sanitary facilities, or lack thereof. Efficiency was paramount, although efficiency was related directly to pedagogy, which in Barnard's case meant teaching students to self-cultivate, providing them with the skills to continue growing intellectually and morally.

Subsequent writers continued the emphasis on efficiency, although not always with the same explicit regard for pedagogy, producing books, journal articles, and annual state and county reports that offered "the best" designs in schools, heating and ventilation systems, decoration, and landscaping. Floor plans specified the ideal locations and heights of windows, doors, platforms for teachers' desks, and the latest designs in heating stoves and window sashes. New interests added to those of Barnard's included means for raising funds to decorate school walls with educational and morally instructive pictures, planting gardens for instructional purposes, placement of sanitary facilities for comfort and proper separation of boys and girls, and landscape designing and fencing to promote healthful and decorous play during recesses (e.g., Kern 1906; Foght 1918). From the 1880s onward manual arts became increasingly important in school design and curriculum development and a source of friction between educators who saw education as a practical preparation for life and those who regarded it as a process of intellectual and moral development (cf. Washington 1903;

DuBois 1903). By 1900, social theorists were becoming increasingly concerned about rural depopulation and advocated rural curricula that included agricultural training and a renewed focus on school gardening (e.g., Kern 1906).

Without going into details, the educational history of the United States and Canada (which produced some of its own innovations that gained currency in the United States and Europe) is rich and varied, with variations at the county level and the state and provincial level. Moreover, the proceedings of state and national teachers' associations and those of school administrators and commissioners betray a great deal of controversy over many issues of pedagogy, curriculum, and physical plant, as well as the presentation of many innovations that were never published in school journals or annual reports. These variations, and the contexts of which they were a part, inform on community history and the general development of education, and constitute a legitimate subject of archaeological inquiry. Three questions should command the reader's attention: Has archaeology contributed to the history of education? How might it contribute in the face of a rapidly dwindling resource? Can schoolhouse sites offer anything to the archaeological study and explication of the historical and cultural development of the Western Hemisphere?

School Excavations

Published sources reveal few instances of reported archaeological excavations of schoolhouse sites. Bibliographies offered by colleagues list some unpublished technical reports, but many of those are difficult to access or were listed in anticipation of completion. The literature on the archaeology of institutions, in general, is very sparse. Notable exceptions and promising beginnings include: Spencer-Wood (1987) on reform movement sites in Massachusetts; De Cunzio (1995) on the Magdalen Society of Philadelphia; Cabak, Groover, and Wagers (1995) on health care at the Wayman A. M. E. Church in Bloomington, Illinois; and Bush (2000) on the Johnson's Island military prison in Ohio. As this section demonstrates, the problem lies largely in the lack of well-defined questions of interest

beyond the level of the site. This section identifies some of the research objectives of investigators working in several northeastern states, especially in Maryland, and recommends additional avenues of study suggested by developments in the historical study of public education.

Between 1975 and 1977, Bower (1978) conducted limited excavations at the Boston African Meeting House. The meetinghouse served the African congregation from 1806 until sometime in the late 19th century, at which point it became a synagogue. From 1808 until construction of the adjacent Abiel Smith School in 1834, the meetinghouse also served as a school for the African-American community. The archaeological study was undertaken to provide details for building restoration and as a public outreach program to involve the community in researching its history. Excavators uncovered structural features related to the construction and modification of the building, including a lighting fixture, but none of this evidence was related to the use of the building as a school. Excavators did recover fragments of writing slates and slate pencils, as well as some toys, but Bower attributed most of the domestic debris to adjoining properties: "The artifacts, therefore, represent a community rather than a household" (Bower 1978: 122).

The Rochester Museum and Science Center conducted test excavations at the Letchworth Park School site in Genesee Falls, New York, in 1986. Originally designated Genesee Falls District Number 2 School, it operated from 1874 until 1934. Parking lot construction damaged the schoolhouse foundation and yard, an otherwise single-component site. Upon completion of excavations, Bigelow and Nagel located primary documents pertaining to the construction of the school, including building specifications, and conducted interviews with local residents who had attended or taught at this rural school. Henry Barnard (1876) published an extensive description of the building and grounds in an issue of his *American Journal of Education*. The text with its accompanying engraved elevation and plan indicated a state-of-the-art rural school with fenced boys' and girls' playgrounds and boys' and girls' privies flanking a woodshed.

Bigelow and Nagel's (1987) excavations and interviews identified inconsistencies with the published description of the building. While the sills may have been perched on the stone foundations two-and-a-half feet above grade, sufficient for lighting a basement playroom, field and interview data demonstrated that the schoolhouse had only a crawlspace so small that it could not even accommodate a furnace. Barnard was either misinformed or he misinterpreted the description provided by the builders in asserting that the building had a basement suitable for a playroom. The main building was 30 x 20 ft (9.1 x 6.1 m) and the rear wing, measuring 10 x 16 ft (3 x 4.9 m), was one foot less in length than indicated in the builder's specifications, but accurately described by Barnard. Barnard also reported insulation and venting features, although limited archaeological testing on this disturbed site retrieved only iron vent register slats.

Originally designed to accommodate 25 students, according to building specifications, the abandonment of local tenant farms reduced the class size to five in 1913, and the school closed in 1934. Photographs and interviews documented changes in lighting fixtures, interior wall treatment, and desks, but demonstrated that the building was never electrified, nor had the district installed plumbing. Chemical toilets, however, were installed in the former boys' and girls' entrance lobbies sometime between 1914 and 1921. The fences separating the yards had been removed prior to toilet installation. Windows were rearranged in the late 1920s to improve lighting. The school and its contents were auctioned and the construction materials salvaged in 1947, the buildings having stood empty for 13 years.

Excavations consisted of 22 shovel tests at 20-ft (6.1-m) intervals in the wooded portion of the site and three backhoe trenches in the parking lot portion. Most of the artifacts recovered were architectural, although three white-ware sherds, 24 bottle glass fragments, and 6 fragments from a colorless glass tumbler were recovered. The investigators suggested that these objects might represent picnicking or refuse disposal, although they did not specify occupational or post-occupational deposition. They also recovered an iron stovepipe wall

collar and brick rubble near the center of the building, a feature that does not appear on the Barnard plan, but which was confirmed by informants. The chimney was set into the rear gable and the stove was near the center of the floor plan, indicating an inclined stovepipe running from the stove to the chimney. The excavation data also suggested piers, rather than a continuous foundation, supporting the rear ell. Traces of the chemical privies also were encountered, although in the most extensively disturbed portion of the building. The investigators attributed meager occupational debris to earlier grading of the site.

Bigelow and Nagel summarized the significance of the Letchworth Park School in terms of changes to the building and grounds that "reflect the local impact of large-scale shifts in social attitudes and educational theories which were current in late nineteenth and early twentieth century America" (Bigelow and Nagel 1987: 20). The lack of electricity and plumbing and the removal of the playground fence, however, suggest an imperfect reflection.

Hartgen Archeological Associates conducted archival and archaeological research in connection with the relocation of a ca. 1855–1915 one-room schoolhouse in LeRay, near Watertown, New York, in June 1990 (Peña 1992). Other than an 1822 deed reference (probably to an earlier manifestation of the school), an 1855 map reference, and second-hand accounts from family and neighbors of those who attended or taught at the school, Peña found no documentation on the structure relating to its use as a school. She suggested that it may have been built under the provisions of New York's free school act of 1849, an assessment supported by an architectural analysis of the extant building. The building is a simple gable-end, three-bay frame structure measuring 22.5 x 28.6 ft (6.9 x 8.7 m) and 22 ft (6.7 m) high, higher and somewhat narrower than plans recommended by van Bokkelen (1865).

Archaeological study focused on the school site as a school, as a center of community activities, and as "an element of nineteenth-century cultural mores and beliefs on the American frontier, and the extent to which these practices diverged from the patterns

established by the prevailing Victorian culture" (Peña 1992: 10). Testing included five shovel tests, three 3 x 3 ft (1 x 1 m) excavation units, and three backhoe trenches. The excavation units yielded a few domestic artifacts (a sherd of Jackfield-type redware, a pearlware cup handle, several ball clay tobacco pipe fragments, and buttons), slate fragments and slate pencils, glass inkwell fragments, and architectural debris (machine-cut nails, window glass, and brick rubble). Neither the five shovel tests nor the four trenches revealed significant features or strata.

Peña (1992: 17) attributed the LeRay schoolhouse's low archaeological visibility to its simple design, as a member of that "category of small rural schoolhouses with few amenities." Her conclusion about the LeRay schoolhouse and three other schoolhouses in the Watertown, New York, area are as follows.

Rather than embodying the current Victorian notions of separation and structure, these schoolhouses were unelaborated vernacular buildings designed for teaching small numbers of students of many ages. Their open, rectangular plans allowed for flexibility, while the number of schoolhouses in the area ensured access to education for a large segment of the rural population. It would seem that, in matters of educational reform, the prevailing Victorian ethic failed to penetrate this part of the American rural frontier. (Peña 1992: 18)

One might argue, however, that these rural schoolhouses are clear manifestations of the "Victorian ethic," a broad body of not entirely consistent beliefs and practices that included inculcation of youth with a sense of community and family responsibility.

Catts, Cunningham, and Custer (1983) conducted test excavations and interviews in connection with the Welsh Tract School, District 54, near Newark, Delaware. The 27 x 34 ft (8.2 x 10.4 m) stone building was built in 1851, burned in 1906, and was rebuilt and used as a school until 1939 when area students attended a nearby consolidated school. It was subsequently purchased and adapted as a dwelling. Fifteen former students, attending the school between 1906 and 1939, reported numerous athletic and social activities that took place on

the school lot, but which required little in the way of equipment. Boys' and girls' frame privies bracketed a 10 x 10 ft (3 x 3 m) coal and wood shed set against the rear line of the one-half acre (0.2 ha) fenced yard.

Shovel testing (n=1030) at 3 ft-6 ft (1-2 m) intervals produced 1,566 artifacts, only 98 of which were ceramic sherds. The investigators identified only 23 artifacts as diagnostic of the schoolhouse occupation, and these included: clay marbles; pencil fragments; chalk; toys; and small denomination pre-1939 coins. Sixteen 3 x 3 ft (1 x 1 m) excavation units and some shovel tests revealed extensive deposits of ash and cinders, which the investigators attributed to the 1906 fire, and the probable remains of the girls' privy. Their assessment is that,

the absence of activity areas (except for gender areas) within the schoolyard was primarily due to the policing of the yard by the students and to the rural nature of the site. Few artifacts were recovered, possibly because the students had few material items to lose. This could be indicative of rural schools in general. The lack of activity areas might be expected at future schoolhouse sites, if investigated, and therefore detailed testing may not be necessary. (Catts, Cunningham, and Custer 1983: 55)

Catts, Shaffer, and Custer (1986) conducted a smaller scale archaeological survey at the late 19th-/early 20th-century Harmony School, District 32, in New Castle, Delaware, that produced similar results. Limited testing yielded mostly metal fragments, window and bottle glass, and brick, but no yard features other than a shed. Based on their unexceptional findings, and "previous testing at another Delaware schoolhouse site [the Welsh Tract School] which showed little significant archaeological data are present," the investigators recommended against further study (Catts, Shaffer, and Custer 1986: 93).

Several Maryland academies have been archaeologically investigated, the earliest such study being Orr and Orr's (1978) test excavations at the Anne Arundel Free School (18AN6), just west of Annapolis. Possibly built as early as 1725, but probably not until 1746, the school operated with partial governmental funding until the first decade of the 20th century when

the building and original 150-acre (60.8-ha) tract were sold to private interests. Anne Arundel County's Board of Education acquired the school building and lot in 1975 and the extant gambrel-roofed stone building now serves as a museum (see FIG. 1). Orr and Orr's work was undertaken prior to the building's restoration (Adomanis 2000). A series of 2-ft (0.6-m) wide trenches around the building revealed the sequence of structural modifications and recovered artifacts (e.g., ceramics and slate pencils) related to the domestic and educational uses of the building, but failed to identify the date of construction any more precisely than already had been indicated by documents.

Gibb (1989, 1990) conducted test excavations at another 18th-century Maryland academy, Charlotte Hall in St. Mary's County. Opened in 1797, this partially state-funded institution started with a single, brick, gambrel-roofed school house, added a "school hall" in 1801 and "principal's house" in 1803 (see FIG. 2), and continued to grow throughout the 19th and 20th centuries, closing its doors in the 1970s. Only the principal's house survives, fire having destroyed the original schoolhouse and hall addition in 1843 and the 1857 classroom building in 1896. Archaeological and archival research aimed at discovering the locations of the missing buildings and determining the 19th-century layout of the academy. Most of the artifacts recovered were architectural except for ball clay tobacco pipe fragments and a broken American gray stoneware pitcher, which probably were related to the robbing of bricks from the burned buildings.

Davidson and Eaton (1985), in a survey of the 605-acre Beverly Plantation in Somerset County, Maryland, found evidence of the Washington Academy (18SO141), an institution that operated in one corner of the tract from 1767 until it burned in 1797. Surface collecting, 81 shovel tests at 2-m (6-ft) intervals, and three 2 × 2 m (6 × 6 ft) excavation units revealed post-holes, deposits of ash, scorched soil, and numerous domestic artifacts: 312 ceramic sherds of Buckley earthenwares and white salt glazed stonewares, among other types; wine bottle and pharmaceutical glass; and 25 pipestems with measurable bores, 24 of which

were 5/64ths in diameter. These finds suggested domestic use of the academy building, a common characteristic of private academies that boarded both students and faculty.

In contrast, the Maryland State Highway Administration's testing of the Oakland School site (18HA225) in Harford County, Maryland, yielded few domestic artifacts (Ervin 1993), principally white-paste and red-paste earthenwares and porcelain, and unspecified bottle glass. Ervin did recover architectural debris (brick, window glass, and machine-cut nails), cinders, and coal from this ca. 1865 private academy. He also noted a mound of rubble, an unmortared fieldstone wall 39.4 ft (12 m) in length, a well, and the ruins of a fieldstone barn foundation. The school, also called the George G. Curtis School, burned in 1964. Little archival research was conducted in connection with the study.

Geidel and Beauregard (1997) researched the Marion School No. 9, District 5, in Cecil County, Maryland (18CE293). Road construction destroyed part of the school lot and the schoolhouse foundation. The field crew exposed fieldstone foundation walls for a building measuring at least 24.6 × 15.4 ft (7.5 × 4.7 m), and no more than 1.3 ft (0.4 m) above grade. They used a published local history and a masters' thesis to fill in some of the details, but conducted little original archival research and recommended no further study. The school district sold the building in 1949, although it undoubtedly went out of service some years earlier, and it was demolished by 1953. The community used the school for Sunday evening services from 1890 to 1892. Our review of the *Annual Report of the State Board of Education for 1886* (State Board of Education 1887) has revealed additional details. The school was built in 1885 and first put into service in 1886, Harriett Johnson teaching 50 enrolled students with an average daily attendance of 15. The schoolhouse measured 30 × 24 ft (9.1 × 7.3 m), was 12 ft (3.7 m) in height, was equipped with 84 ft² (7.8 m²) of blackboard, and had associated outbuildings (presumably privies and a fuel shed), but lacked fences. Limited archaeological testing on this extensively disturbed site revealed no evidence of outbuildings or fences.

Ward (1986) conducted test excavations at the Chesapeake City Public School site (1886-1940), also in Cecil County, focusing on the identification of the footprint of this multi-

room school. The project was intended as a public outreach effort that celebrated both archaeology and the elementary school's centennial anniversary. Ward's archival research included a review of a published history on the county's schools, collecting class photographs of the school's exterior, and examination of the State Board of Education's annual reports for 1886 and 1887 and the minutes of the county's board of education meetings. Probing, soil resistivity testing, and shovel testing preceded the excavation of three 5 x 5 ft (1.5 x 1.5 m) units and one 2.5 x 10 ft (0.8 x 3 m) unit. Ward identified a part of the building's footprint, including additions, and recovered some pencil leads, architectural debris, and coal ash.

Lacoste and Wall (1989) produced a cultural resources management document for Western Maryland that listed the kinds of cultural resources likely to be found in the state west of the Allegheny Mountains and their potential significance. Among the 104 sites briefly described, the authors included five school sites: McMason School (18GA196); Shade Run School (18GA98); Aaron Run (18GA178); Silver Knob (18GA156); and the Miller School (18GA124). Lacoste and Wall conducted fieldwork at the Miller School site to identify the kinds of artifacts that might be typical of such sites and to determine if school sites are potentially significant archaeological resources in the region. They found few school-related objects and suggested that only schools with exceptional stratigraphic integrity and sound historical documentation were likely to produce useful archaeological data. These common sites would be largely of local, rather than statewide or national, interest (Lacoste and Wall 1989: 64). They expressed the same doubts as did Catts, Cunningham, and Custer (1983) that such sites, lacking functionally diagnostic artifacts, have much research value: "considering the potential of artifact deposition processes at school and church sites is extremely variable and inconsistent, it is doubtful that such sites would yield artifacts or features worthy of even the most limited efforts" (Lacoste and Wall 1989: 108).

Comer (1996) conducted the only reported archaeological study of an African-American free public school in Maryland, the Ellicott City Colored School 1, District 1, in Howard

County. Forty-four shovel tests yielded neither features nor significant cultural material around this extant frame building slated for restoration and use as a museum. Associated archival research and interviews produced useful interpretive material on the early 20th-century operation of the school. The *Annual Report of the State Board of Education for 1880* reveals one interesting bit of information on the school that well reflects attitudes toward educating non-whites in Maryland: "The colored schools [in Howard County] were not opened during the fall term because the Board devoted the money for that quarter and a portion of the Summer Term to the building of a new school house [for African Americans] in Ellicott City, which has long been needed" (Rogers 1881: 204). The following year Howard County's school examiner recommended this practice to create a school fund for building additional schools for African-American children, moving them out of churches and other temporary quarters (Bruff 1882: 91). The school still functioned as such in 1947, and was abandoned by 1953 as no longer fit for use (Comer 1996: 22-23).

On the opposite side of Ellicott City from the Colored School Number 1, and overlooking the town from atop of a hill, lie the ruins of the Patapsco Female Institute (18HO143). Founded by local interests, the academy opened in 1836 in a well-appointed Greek Revival structure looking for all the world like a temple upon a hill. It was three stories of stone rubble and ashlar masonry with a footprint of approximately 100 x 65 ft (30 x 20 m), exclusive of several additions. Preston (1992) conducted test excavations at the site in 1987, and Gibb (n.d.) supervised extensive test excavations around the main building and its appended Gothic Revival chapel (completed 1857) prior to ruin stabilization in 1993. Although the analysis has not been completed, the combined efforts of more than a dozen years of archival and archaeological research have established detailed historical information on the school and its subsequent uses (post-1890). Excavations uncovered the remains of several frame additions and free-standing brick structures, all of which previously were documented with period insurance maps. Of the more than 30,000 artifacts recovered, most were architectural or recent illicitly discarded trash related to the abandonment

and vandalizing of the site during the 1960s through 1980s. Analysis of the artifacts may identify patterns related to the academy occupation.

Oella Schoolhouse

Across the Patapsco River from the academy, in the village of Oella in southwest Baltimore County, was the site of the Oella School, School 1, District 9 (FIG. 5). The Baltimore County Board of Education completed several new schoolhouses in 1873, including the Oella School.

At the Union Factory a stone house 48 x 26 feet, having two rooms, has been built on a lot donated to the Board by the Union Manufacturing Company. This house will seat one hundred pupils. All of these [schoolhouses built during the previous year] have a cellar under the vestibule for the safe keeping of fuel, and all of them are furnished with new furniture. (Kepler 1874: 71–72)

The tables appended to the 1874 report noted that the stone building was 12 or 14 ft (3.7 or 4.3 m) high (the two tables are not in accord on this point), occupied a fenced lot with one or more outbuildings (presumably one or two privies), cost \$1,781.50 to build, and contained \$309.03 worth of new furniture, type unspecified. The schoolhouse had 20 ft² (1.85m²) of blackboard and one wall map. Rebecca V.

Hynes served as the principal teacher, and continued in that capacity until her marriage in 1878. Carrie W. Koehl assisted with teaching the 81 students enrolled for the year ending September 1873. Hynes and Koehl's successors were all women (State Board of Education 1873–1924).

The Baltimore County Board of Education reported construction of a frame addition to the school in 1897 for \$693.00, but provided no dimensions. Previous and subsequent reports (up to 1903) document small sums spent on schoolhouse repairs. The school closed when the newly opened Westchester Avenue school, approximately 0.5 miles (800 m) east of the Oella school, opened in 1924, consolidating several smaller schools in the area (Wagandt 1975). At the time of its closing, the Oella school consisted of three rooms with grades 1 and 2, 3 and 4, and 5 through 8 occupying separate rooms. A wall dividing the original classroom building into two rooms seems likely. The frame addition provided the third room and a separate vestibule, possibly for the older students. Using the capacity figures provided by van Bokkelen (1865), the principal structure would have accommodated up to 100 students, the annex an additional 50. The relationship of enrolled attendance and average daily attendance to building capacity appears in Figure 6, the data drawn from the State Board of Education's annual reports for the years 1873 through 1918.

In February 2000, remnants of the Oella schoolhouse foundation were visible on the 0.73 acre (0.25 ha) school lot, a continuing source of building stone for local restoration projects (Gibb and Beisaw 2000). A large portion of the school lot had been disturbed by sewer line and road construction. The mapped foundation, without the addition, compared favorably with van Bokkelen's Plan 4 (see TAB. 1)

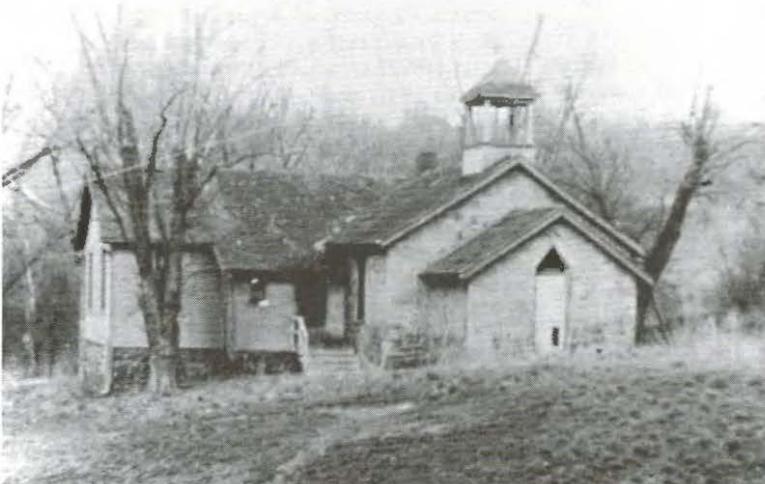


Figure 5. Oella Schoolhouse ca. 1924.

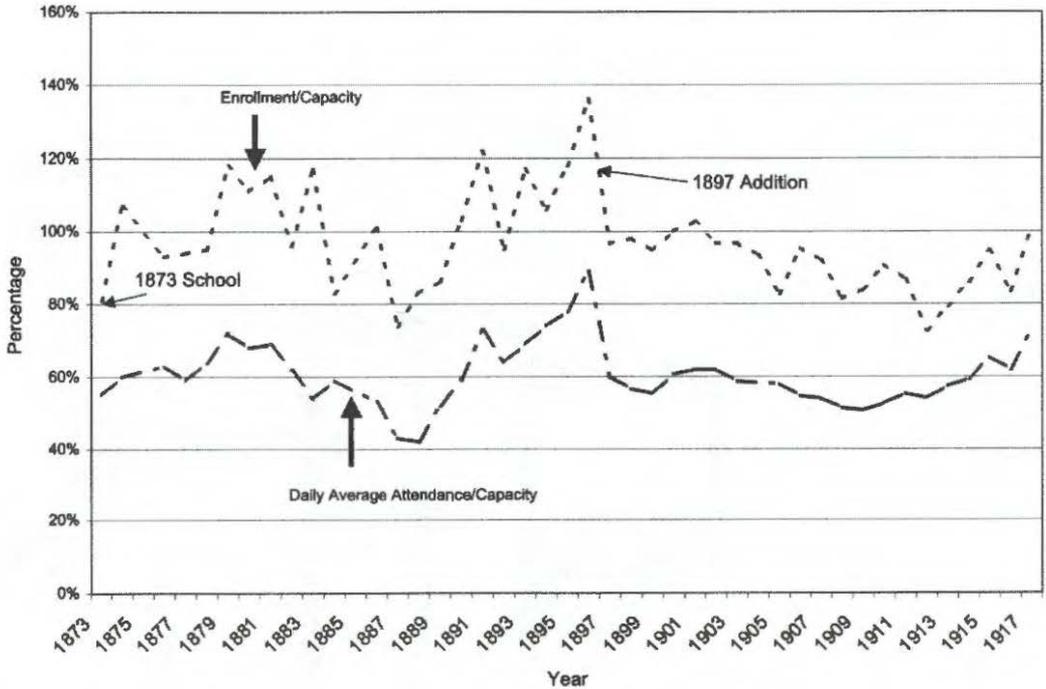


Figure 6. Enrollment and daily average attendance for the Oella School relative to the school building's changing capacity.

and with the ca. 1924 photograph of the Oella School House, although the size was more in keeping with that of van Bokkelen's Plan 5 (see FIG. 4). The locations of the vestibule, belfry, and chimney in the 1865 elevation are identical to those in the ca. 1924 photograph (see FIG. 5). The archaeological site plan documents the original 27 x 52 ft (8.2 x 15.8 m) core structure, a separate vestibule measuring approximately 8 x 24 ft (2.4 x 7.3 m), and an addition measuring approximately 23 x 24 ft (7 x 7.3 m) with a separate 6 x 12.5 ft (1.8 x 3.8 m) vestibule (FIG. 7). The foundations were largely of a black-green gabbro, the walls of the original building made of light-colored micaceous gneiss. The brick chimney base measured 3 x 2.5 ft (0.914 x 0.716 m), and was still partly articulated and mortared into the east wall of the core structure, about 15 ft (4.6 m) south of the northeast corner.

Forty-four shovel test pits, excavated at 33-ft (10-m) intervals around the foundation, documented consistent stratigraphy across the site, including coal and ash deposits, averaging 0.25 ft (8 cm) in thickness, north and

west of the building foundation. Clay fill, probably from sewer line installation, was encountered on the eastern side of the foundation. No subsurface features, other than the coal and ash layer, were encountered. Shovel testing yielded 326 historical artifacts (TAB. 2). Most of the glass fragments were too small and featureless to be temporally diagnostic. All of these artifacts are consistent with domestic occupations of the second quarter of the 19th century and later. Spatial analyses of the artifact distributions failed to identify any patterning. Ceramic and glass vessel fragments probably derived from earlier domestic occupations closer to Oella Avenue and suggested by Sidney's (1850) map, and from community use of the school lot for picnics and ice cream socials. No marbles, metal jacks, doll parts, or other artifacts indicative of play were recovered.

Soils within the structure, examined with two 5 x 5 ft (1.5 x 1.5 m) excavation units, were similar to those encountered across the site: sandy loams over sandy clay subsoils. Inside the structure, however, large amounts of

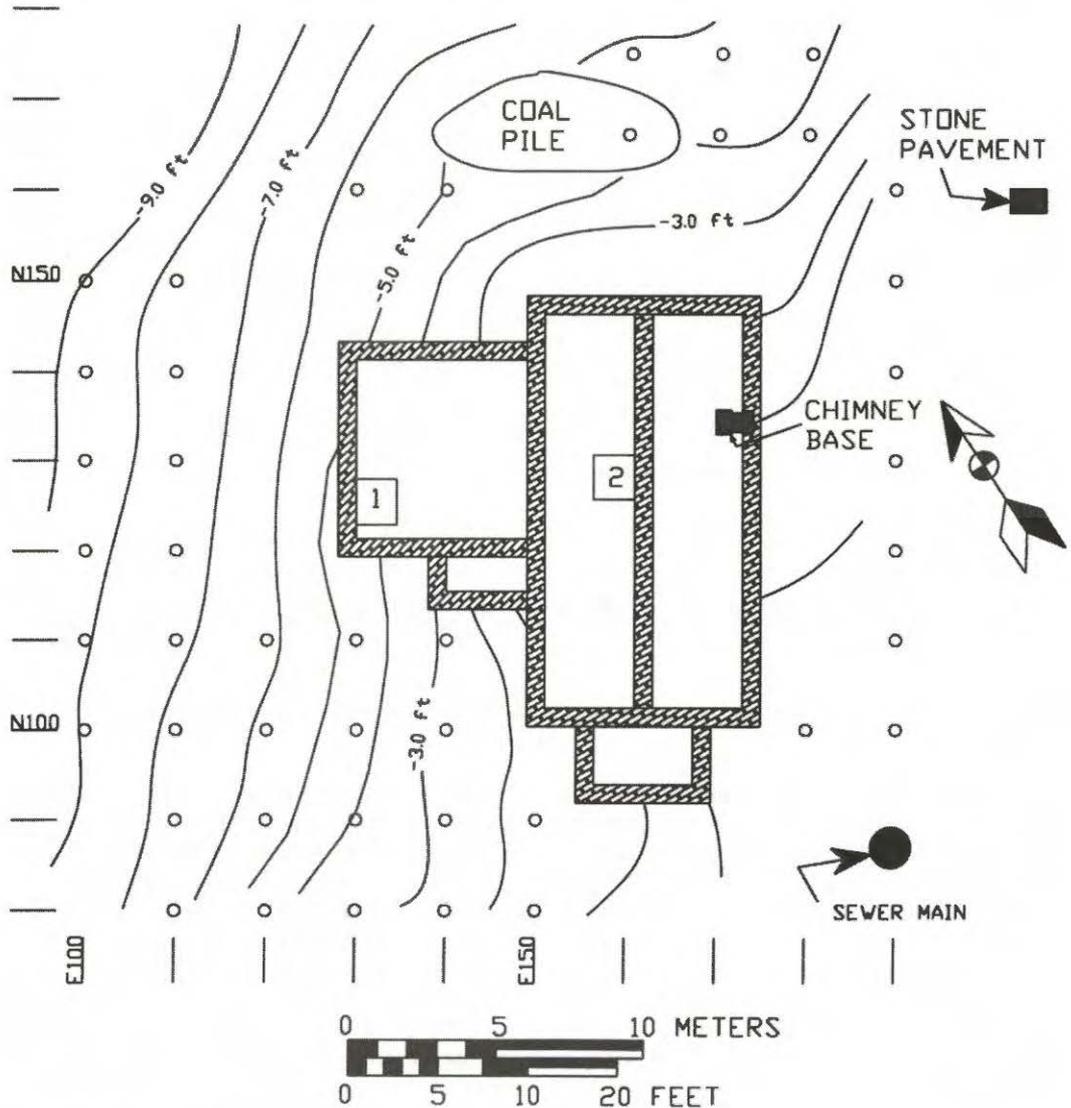


Figure 7. Oella Schoolhouse site map.

plaster and mortar from the demolition of the building (ca. 1924) occurred under the humus. Builders' trenches were identified in both units. School-related artifacts recovered from within the foundation included slate pencil fragments and an ashcan lid that might have been from a can used to collect coal ash removed from the schoolroom stove. Excavators also retrieved cast iron desk fragments that are clearly parts of a Soper close desk, furniture recommended by van Bokkelen (1865)

and patented by his clerk, W. Horace Soper (FIGS. 8, 9). Brick rubble near the middle of the core building may have supported the coal stove, the pipe of which would have extended eastward across the room to the brick chimney. The field crew recovered no evidence of a second stove in the 1897 addition, although that room almost certainly had one.

Excavators also recovered the remains of a terra cotta stove thimble, a hand-thrown bottomless clay pot that insulated the stovepipe

Table 2. Selected artifacts recovered from Oella Schoolhouse shovel tests and excavation units.

<i>Artifact Type</i>	<i>Shovel Test Pits</i>	<i>Excavation Units</i>	<i>Total</i>
Machine-cut nails, common	5	230	235
Machine-cut nails, lathing	6	48	54
Wire nails	2	61	63
Indeterminate nails	39	44	83
Owens-type bottle glass	2	55	57
Tumbler	4	0	4
Non-diagnostic glass	86	48	134
Coarse red earthenware	13	11	24
American gray stoneware	0	1	1
Yellowware	1	0	1
White Granite/Ironstone	1	0	1
Whiteware, undecorated	44	19	63
Whiteware, transfer printed	2	2	4
Whiteware, painted	0	7	7
Whiteware, dipped	2	1	3
Pearlware, undecorated	9	4	13
Pearlware, painted	5	2	7
Pearlware, dipped	2	0	2
Porcelain	3	0	3
Slate pencils	1	4	5
Ball clay pipes	2	0	2

from the brick chimney flue (FIG. 10), from Excavation Unit 2 in the 1873 foundation. Its reconstructed exterior diameter of 6.2 in (16 cm) accords well with metal versions advertised in late 19th- and early 20th-century cata-



Figure 8. Cast iron parts of Soper's close seat desk recovered from the Oella School site excavation, Unit 2, Stratum 2.

logues (Sears, Roebuck & Company 1897: 128). Its reconstructed length of 6.5–7 in (16.8–18.1 cm), however, contrasts with the 4 in (10.16 cm) metal versions, suggesting that the terra cotta type was intended for chimneys that were two bricks widths thick. The presence of the thimble and lack of a metal thimble and collar suggests that this portion of the heating system was never replaced; only 50 ft² (4.5 m²) of 1,800 ft² (167 m²), or about 3%, of the building's footprint, was tested, however, and other evidence of maintenance and modification may have survived.

Discussion

The 19 school sites discussed in this paper fall within three categories: private academies of the late 18th and 19th centuries (5); rural and village common schools of the late 19th/early 20th centuries (11); and urban public schools (3). Of the latter, two were small schools solely accommodating African Americans (TAB. 3), and the Ellicott City Colored School Number 1 fits a village, rather than city, pattern in terms of its size and construction. Most have been subject only to lim-



Figure 9. Soper's close seat desk in the collections of the Anne Arundel Free School museum.

ited archaeological testing, and all but the Chesapeake City school were examined—in whole or in part—as mandated cultural resources management assessments. No doubt

many other school sites in the northeastern United States and eastern Canada have been archaeologically tested, but either have not been reported or are documented only in limited distribution technical reports. Indeed, the emphasis on Maryland sites (14 of the 19 sites) reflects the authors' access to the technical literature collected by the Maryland Historical Trust (FIG. 11). Despite this skewed sample, commonalities can be identified.

Each of the investigators focused on two kinds of information: the location and footprint of the school, and the artifacts and features that represent the use of school lot space. Eight of the investigations occurred around extant school buildings in varying states of disrepair, and all 19 identified the principal school building or buildings. Architectural materials (brick fragments, window glass, and nails) dominated each of the assemblages. In

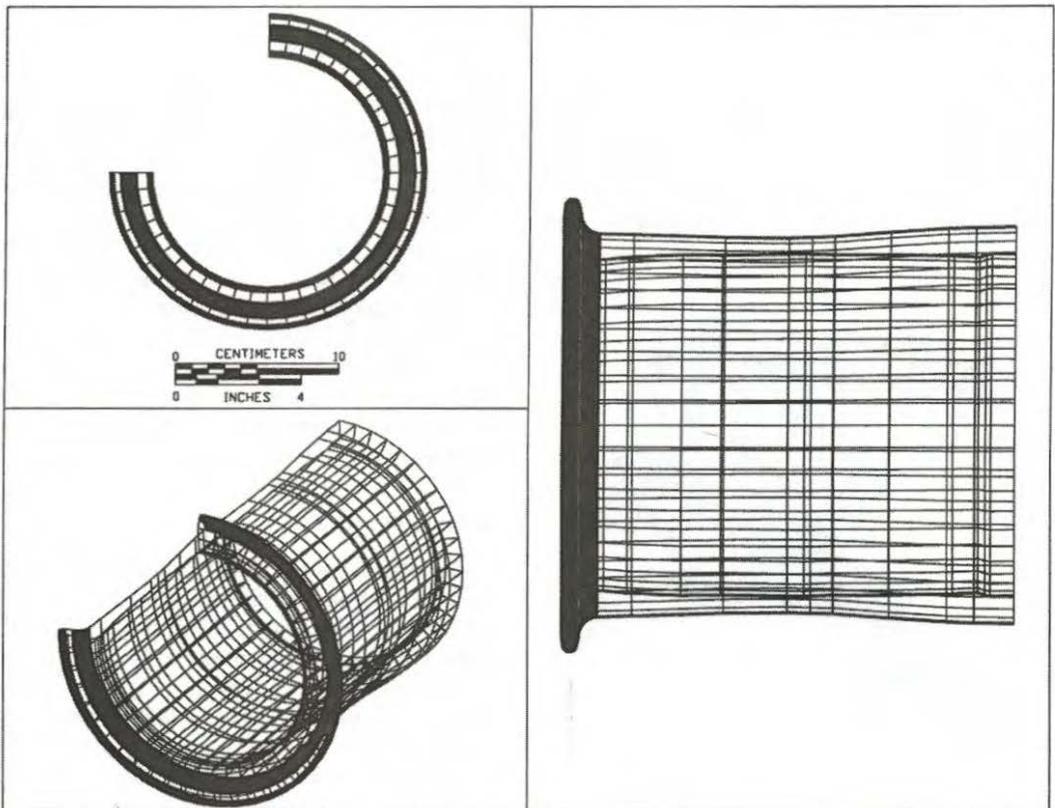


Figure 10. Perspective reconstruction of a terra cotta stove thimble recovered from the Oella School site, Unit 2, Stratum 2.

Table 3. Schools cited in the text.

<i>School Site</i>	<i>Type of School</i>	<i>Date Range</i>	<i>Reported by</i>
1. Boston African Meeting House	Urban, African American	1808-1834	Bower 1978
2. Letchworth Park School	Rural Common School	1874-1934	Bigelow & Nagel 1987
3. LeRay School	Rural Common School	ca. 1855-1915	Peña 1992
4. Welsh Tract School	Rural Common School	1851-1939	Catts et al. 1983
5. Harmony School	Rural Common School	late 19th-early 20th century	Catts et al. 1986
6. Anne Arundel Free School	Rural Academy	ca. 1746-1908	Orr & Orr 1978, Adomanis 2000
7. Charlotte Hall Academy	Rural Academy	1797-1970s	Gibb 1989, 1990
8. Washington Academy	Rural Academy	1764-1797	Davidson and Eaton 1985
9. Oakland School	Rural Academy	ca. 1865-1964	Ervin 1993
10. Marion School	Rural Common School	1886-ca. 1940	Geidel & Bearegard 1997
11. Chesapeake City Public School	Urban Public School	1886-1940	Ward 1986
12. McMason School	Rural Common School	late 19th-early 20th century	Lacoste & Wall 1989
13. Shade Run School	Rural Common School	late 19th-early 20th century	Lacoste & Wall 1989
14. Aaron Run School	Rural Common School	late 19th-early 20th century	Lacoste & Wall 1989
15. Silver Knob School	Rural Common School	late 19th-early 20th century	Lacoste & Wall 1989
16. Miller School	Rural Common School	late 19th-early 20th century	Lacoste & Wall 1989
17. Ellicott City Colored School	Rural Common School, African American	1881-ca. 1950	Comer 1996
18. Patapsco Female Institute	Urban Academy	1836-1890	Preston 1992, Gibb n.d.
19. Oella School	Village Common School	1873-1924	Gibb & Beisaw 2000

this regard, the school sites are similar to domestic sites. Less common but interpretively useful artifacts recovered from several of the sites include stove thimbles and collars (Letchworth Park, Oella), ventilation register fragments and the remains of chemical toilets (Letchworth Park), desk parts (Oella), window shutters and a light fixture (Boston African Meeting House), lamp chimney glass (Oakland), and a window shutter latch (Chesapeake City). Coal ash deposits appear at most, if not all, of those sites that were occupied into the 19th and 20th centuries, clear evidence of heating with coal stoves. Each of these objects and deposits relates to issues of lighting, heating, furnishing, or sanitary facilities, issues of considerable concern to students, parents, teachers, local and state school officers, and writers on education. Surviving documents often report only maintenance expenses without specifying the nature of repairs, modifications, and replacements. Such details, however, represent community attitudes towards public education and larger social issues; e.g., the length and seasons of the school year, length of the school day, separation of the sexes (Peña 1992), sanitation and public health, and abstract learning versus manual training.

Clear evidence for remodeling or expanding school buildings can be seen at many of the schools. The builders of the Letch-

worth Park School were proud of their state-of-the-art rural school and they replaced unsanitary privies with chemical toilets in the early 20th century. Many Maryland common schools during the late 19th century reported no privies at all, and Foght decried Missouri outhouses as indecent, disgraceful, and loathsome. "Good indoor closets and lavatories may be constructed at a total outlay of about \$350," claimed Foght (1918: 130), and yet, realizing that many districts would not do so, followed his remark with recommendations for the preferred placement, construction, screening, and maintenance of outdoor privies. Charlotte Hall Academy built additional, increasingly more specialized school buildings, particularly after its adoption of a military academy program in the 1850s. Several of the studies revealed facilities expansion to accommodate increasing numbers of students (Charlotte Hall, Chesapeake City, Patapsco Female Institute, and Oella) and to separate student and faculty living quarters from classrooms at the academies (Charlotte Hall, Patapsco Female Institute). Figure 6 clearly demonstrates the impetus that rising enrollment gave to expansion at Oella, although the data do not indicate the extent to which the county school superintendent and board of education considered average daily attendance in their expansion plans.

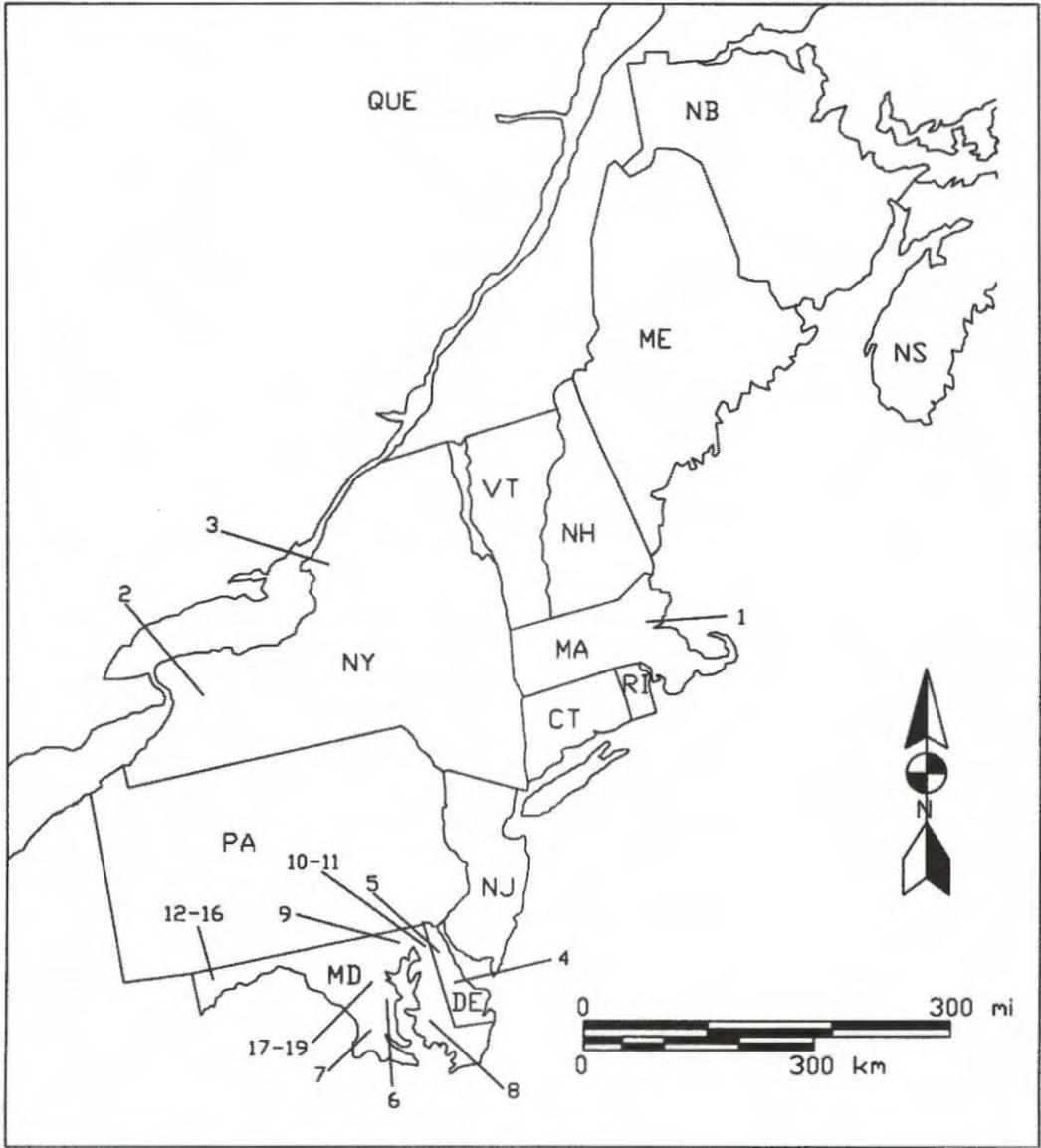


Figure 11. Locations of the 19 school sites discussed in this paper. Numbers refer to the sites listed and described in Table 3.

Studies of non-architectural artifacts at each of the school sites have been disappointing. Catts, Cunningham, and Custer (1983), Catts, Shaffer, and Custer (1986), and Lacoste and Wall (1989), for example, found little that they could relate to the activities of the students beyond a few slate pencil and writing slate fragments, and the odd marble or

two. Similarly, Peña's work at the LeRay School and Bigelow and Nagel's study of the Letchworth Park school both produced little that could be attributed to the scholarly and recreational activities of the students. The students had little to lose, suggested Catts, Cunningham, and Custer (1983: 55), and many games left no material trace or the simple

accoutrements were repaired or recycled. Desks, blackboards, textbooks, and other learning apparatus likely were moved to new facilities upon the abandonment of a schoolhouse, and the little refuse that was discarded at 19th- through 20th-century school sites probably was disposed of with coal ash from the stoves. Lacking fences that separated boys' and girls' privies and playgrounds (recommended by all writers on school houses and yards), there is little trace of divisions of space and activities along lines of gender. Significant quantities of domestic artifacts—those materials upon which archaeologists historically have relied for dating sites and defining activities and activity areas—appear only at academy sites that boarded faculty and students (e.g., Anne Arundel Free School, Washington Academy) or at sites previously or subsequently used for domestic purposes (Boston African Meeting House, Welsh Tract, and Oella). Distinctions based on age do not appear consistently in the published records of Maryland schools, but may be seen in the partitioning and sizes of classrooms, and in the sizes of desks. The 1897 addition to the Oella schoolhouse, for example, represents a significant increase in enrollment, and possibly an increase in the average age of students in this factory village. The rural Letchworth Park and LeRay schoolhouses, in contrast, exhibit no evidence of expansion (albeit some modernization in the case of the former). Could this represent a decrease in factory employment of youths at the outset of the Progressive Era (Oella), while older boys and girls continued to participate in the agricultural economy (LeRay and Letchworth), or did school boards respond largely to patterns of urbanization and rural depopulation, schoolhouse size positively correlated with local demographics for those aged 6 through 18?

The dearth of domestic artifacts does not detract from the research value of school sites any more than it does for industrial sites. The value of these sites depends on the questions asked of them, and those questions naturally grow out of a familiarity with the history of education. An enormous amount of published literature on education for the 19th and 20th centuries exists and is readily accessible, some of the more important works available in

reprint. That literature concerns pedagogy, funding, and the physical plants of education, and rarely does a particular publication treat just one of these concerns. Archaeological investigations should not abandon the search for domestic artifacts and the behavioral patterns that those objects may represent, but greater attention must be drawn to the architecture of the schoolhouses and associated structures such as fuel storage sheds and coal bins, privies, fences, wells, and other special-use buildings (e.g., dormitories, chapels, gymnasias). That attention should not be confined to objects recovered from the ground, but should include architectural documentation and analysis of ruins and extant structures.

Evidence for initial construction, modification, repair, and expansion should be sought, both in the structural fabric of the school buildings and in the sanitary, ventilation, heating, and lighting subsystems. The recovery of artifacts related to the architectural and mechanical systems of the buildings, and features related to the construction and modification of the principal buildings and outbuildings, should demand the attention of those excavating school sites. Boys' and girls' privies may yield distinctly different assemblages, but privies typically were periodically cleaned, and artifacts recovered from them may not represent patterns that spanned the life of the school. Whether or not privies were provided, where they were placed, and whether or not they were moved, modified, or replaced by mechanical systems reveals much about the wealth of academy and public school patrons and of their commitment to education, private and public.

Artifacts recovered from coal ash deposits may not shed light on the spatial separation of girls and boys, but will more likely represent the kinds of things they brought to, and discarded at, schools. Ash deposits at Oella and the Welsh Tract schools were extensive, and those at Oella may have been used as a surfacing material or to fill low spots in the school lot. Once those deposits were identified, a sampling regime should have been developed to recover representative samples of non-fuel inclusions.

Special attention also should be brought to the recovery and identification of apparatus

used in industrial education, a very widely and emotionally debated issue in American education, and in science education. The former might include metal and wood-working tool fragments, scraps of waste material, and lost and discarded hardware. Scientific apparatus might include compasses, laboratory glassware, brass fittings of various sorts, balance scale weights, and the remains of other measuring devices. Musical instrument parts also might be recovered from some sites, though probably in small numbers.

Conclusion

Schools are products of community action, as are social institutions in general, which represent community attitudes, opinions, and demographics (De Cunzo 1995; Bush 2000). They embody controversies and power structures (Spencer-Wood 1987; Cabak, Grover, and Wagers 1995), parochialism and progressivism. They can demonstrate a community's attitudes toward state involvement in education, as the Oella School site suggests in terms of its adherence to a state recommended, but at the time of construction no longer mandated, plan for building and furnishing the schoolhouse. They illustrate the role of prominent, generally wealthy individuals and corporations in providing and designing educational programs, as can be seen in the philanthropy of William P. Letchworth (Letchworth Park School) and the Union Manufacturing Company (Oella School), and community responses to the ongoing controversy about the relationship of education to life's labor. And they demonstrate the roles of politics (the various Colonial Period and Early Republic free schools) and business (Patapsco Female Institute) in establishing educational institutions.

Perhaps of the most profound interest to archaeologists, however, is the explicitly recognized role of universal education in the political and economic health of the state, as articulated in many school laws, publications, and speeches from the 17th century to the present. "Ignorance of the voter," asserted J. L. M. Curry (1890) in an address to the Louisiana General Assembly, "is an abridgement of the liberties of others." That simple statement lies

at the heart of state and federal involvement in promoting universal education in the United States to the point of making it compulsory. Historical archaeology can contribute to an understanding of the extent, quality, and content of educational programs, providing hard data from the physical plants of education to balance the theorizing, and sometimes sermonizing, writings of school administrators, trustees, and pundits. To do so, however, requires a shift in expectations and methods. Field and laboratory strategies developed for the study of domestic sites must be adapted to sites that generally are poor in domestic refuse. Extant buildings cannot be remanded to the realm of architectural history and ignored in site analyses. County, parish, state, and provincial records must be scrutinized for site-specific data as well as for annual reports of the relevant jurisdiction, with special attention paid to funding and pedagogical issues, race, equipment and maintenance, and teacher training and certification. Above all, the sites discussed in this paper suggest that most school site excavations lack a scientific basis for their sampling and certainly require more intensive sampling than a few systematically excavated shovel tests and a handful of judgmentally placed excavation units. Historical archaeologists will continue to be disappointed, learning little from the soils of school sites, unless the same question-based, historically informed practices developed in connection with domestic and industrial sites are brought to bear on school sites.

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References

- Adomanis, James
2000 *Annearrundell County Free School, 1723-1912*. The Maryland Center for the Study of History, Arnold.
- Archives of Maryland
1883- *Archives of Maryland*. 72 Volumes.
1964 Maryland Historical Society, Baltimore.
- Barnard, Henry
1876 Plans for School-Houses with One Room. *Barnard's American Journal of Education* 26(2): 301-304.
- Bigelow, Gerald F., and Brian L. Nagel
1987 The Letchworth Park School, 1874-1946: Historical and Archaeological Investigations. *The Bulletin, Journal of the New York State Archeological Association* 94: 1-25.
- Bower, Beth Ann
1978 Archaeology Programs at the Museum of Afro American History: The African Meeting House and Dig Roxbury. In *New England Historical Archaeology: The Dublin Seminar for New England Folklife Annual Proceedings 1977*, ed. by Peter Benes, 117-123. Boston University, Boston.
- Browne, Margaret Lynne, and Patricia M. Vanorny
n.d. *Piety, Chastity, and Love of Country: Education in Maryland to 1916*. Maryland State Archives, Annapolis.
- Bruff, Thomas C.
1882 Report for Howard County. In *Fifteenth Annual Report of the State Board of Education Shewing the Condition of the Public Schools of Maryland for the Year Ending September 30, 1881*. L. F. Colton, Annapolis.
- Bush, David R.
2000 Interpreting the Latrines of the Johnson's Island Civil War Military Prison. *Historical Archaeology* 34(1): 62-78.
- Button, H. Warren, and Eugene F. Provenzo, Jr.
1983 *History of Education and Culture in America*. Prentice-Hall, Englewood Cliffs, NJ.
- Cabak, Melanie A., Mark D. Groover, and Scott J. Wagers
1995 Health Care and the Wayman A. M. E. Church. *Historical Archaeology* 29(2): 55-76.
- Catts, Wade P., Kevin W. Cunningham, and Jay F. Custer
1983 *Archaeological Investigation at the Welsh Tract School, District No. 54, Newark, Delaware*. Delaware Department of Transportation Archaeological Series No. 22. Dover.
- Catts, Wade P., Mark Shaffer, and Jay F. Custer
1986 *Phase I & II Archaeological Investigation of the Route 7 North Corridor, Milltown to the Pennsylvania State Line, New Castle, Delaware*. Delaware Department of Transportation Archaeological Series No. 47. Dover.
- Comer, Elizabeth A.
1996 Phase I Archaeological Investigation at the Ellicott City Colored School, Ellicott City, Maryland. Elizabeth A. Comer/Archaeology. Submitted to GMA&D Architecture & Design, Columbia, MD.
- Cremin, Lawrence A.
1951 *The American Common School: An Historic Conception*. Teachers College Press, Columbia University, New York.
- Curry, J. L. M.
1890 Address Delivered May 20, 1890, Before the General Assembly of Louisiana. Reprinted in *Social History of American Education, Volume 2: 1860 to the Present (1965)*, ed. by Rena L. Vassar, 95-107. Rand McNally & Company, Chicago.
- Davidson, Thomas E., and Ethel R. Eaton
1985 *Archaeological Investigation of the Beverly Plantation*. Maryland Historical Trust Monograph Series Number 39.
- DuBois, W. E. B.
1903 The Talented Tenth. Reprinted in *Social History of American Education, Volume 2: 1860 to the Present (1965)*, ed. by Rena L. Vassar, 68-77. Rand McNally & Company, Chicago.
- De Cunzo, Lu Ann
1995 Reform, Respite, Ritual: An Archaeology of Institutions; the Magdalen Society of Philadelphia, 1800-1850. *Historical Archaeology* 29 (3).
- Ervin, Richard G.
1993 *Archaeological Survey of the Intersection of Maryland Route 147 and Maryland Route 152, Harford County, Maryland*. Maryland State Highway Administration Report Number 36. Annapolis.

- Foght, Harold Waldstein
1918 *The American Rural School: Its Characteristics, Its Future, and Its Problems*. MacMillan Company, New York.
- Geidel, Richard A., and Alan D. Beauregard
1997 Archaeological and Historical Research: Marion School No. 9 Site, 18CE293, Cecil County, Maryland. KCI Technologies, Mechanicsburg, PA. Submitted to York Building Products Company, Perryville, MD.
- Gibb, James G.
n.d A Phase II Archaeological Site Examination at the Patapsco Female Institute (18HO143), Ellicott City, Maryland. Submitted to the Howard County Department of Parks and Recreation, Ellicott City, MD.
1989 Archaeological Survey and Testing at the Charlotte Hall Veterans' Home (18ST400), Charlotte Hall, Maryland. Submitted to the Charlotte Hall Veterans' Home, Charlotte Hall, MD.
1990 Charlotte Hall Academy, 1797–1900. *St. Mary's Chronicles* 38(2): 305–311.
- Gibb, James G., and April M. Beisaw
2000 Phase II Archaeological Site Examination of the Oella School (18BA475), Oella, Baltimore County, Maryland. Andrew Garte & Associates, Shady Side, Maryland. Submitted to The Oella Company, Ellicott City, MD.
- Kepler, Samuel
1874 Report for Baltimore County. In *Ninth Annual Report of the State Board of Education Shewing the Condition of the Public Schools of Maryland for the Year Ending September 30, 1873*. [Maryland State Board of Education] Annapolis.
- Kern, O. J.
1906 *Among Country Schools*. Ginn & Company, Boston.
- Lacoste, Kenneth C., and Robert D. Wall
1989 *An Archeological Study of the Western Maryland Coal Region: The Historic Resources*. Maryland Geological Survey, Baltimore.
- Lee, Gordon C., ed.
1962 *Crusade Against Ignorance: Thomas Jefferson on Education*. Teachers College Press, Columbia University, New York.
- McClintock, Jean, and Robert McClintock
1970a Architecture and Pedagogy. In *Henry Barnard's School Architecture*, ed. by Jean McClintock and Robert McClintock, 1–28. Teachers College Press, Columbia University, New York.
1970b (eds.) *Henry Barnard's School Architecture*. Reprint of *Henry Barnard's School Architecture, Or Contributions to the Improvement of School-House in the United States (1842)*. Teachers College Press, Columbia University, New York.
- Orr, Kenneth G., and Ronald G. Orr
1978 The Conjectured First Free School Site of Anne Arundel County, Maryland: An Intensive Archaeological Survey. Submitted to the Anne Arundel County Board of Education, Annapolis, MD.
- Peña, Elizabeth S.
1992 Educational Archaeology: Historical Archaeological Investigations at Schoolhouse 12 in the Town of LeRay, Jefferson County. *The Bulletin, Journal of the New York State Archeological Association* 103: 10–19.
- Phillips, Claude Anderson
1948 *Fifty Years of Public School Teaching: From Rural School Teacher to University Professor*. Missouri State Teachers Association, Columbia.
- Preston, M. Lee
1992 A Preliminary Report on the Historical Archeology of the Patapsco Female Institute (18HO143), Ellicott City, Maryland. *Maryland Archeology* 28(1): 14–32.
- Rogers, John G.
1881 [Report for Howard County.] In *Fourteenth Annual Report of the State Board of Education Shewing the Condition of the Public Schools of Maryland for the Year Ending September 30, 1880*. [Maryland State Board of Education] Annapolis.
- Sears, Roebuck & Company
1897 1897 *Sears, Roebuck & Co. Catalogue*. 1993 reprint ed. by Fred L. Israel. Chelsea House Publishers, Philadelphia.
- Sidney, J. C.
1850 *Map of the City and County of Baltimore, Maryland*. James M. Stephens, Baltimore.

Spencer-Wood, Suzanne M.

- 1987 A Survey of Domestic Reform Movement Sites in Boston and Cambridge, ca. 1865–1905. *Historical Archaeology* 21(2): 7–36.

State Board of Education

- 1865– Annual reports of the Maryland
1924 Department of Education, and its precursors. Various publishers, Annapolis. Full set available at the Maryland State Law Library, Annapolis.

van Bokkelen, L[ibertus]

- 1865 *Annual Report of the State Superintendent of Public Instruction*. [Maryland State Board of Education] Annapolis.

Vassar, Rena L., comp. and ed.

- 1965 *Social History of American Education*, 2 Vols. Rand McNally & Company, Chicago.

Wagandt, Charles

- 1975 Interview with Clara Cavey of Oella, Maryland. Conducted by Charles Wagandt, January 9, 1975. Partial typescript on file at Andrew Garte & Associates, Shady Side, MD.

Ward, H. Henry

- 1986 *The Chesapeake City Public School Centennial Archaeological Project: Archaeology for Us*. Maryland Historical Trust, Annapolis.

Washington, Booker T.

- 1903 *Industrial Education for the Negro*. Reprinted in *Social History of American Education, Volume 2: 1860 to the Present (1965)*, ed. by Rena L. Vassar, 59–67. Rand McNally & Company, Chicago.

Whittier, John Greenleaf

- 1870 *In School-Days*. Reprinted in 1960 in *Whittier*, ed. by Donald Hall, 136–137. Dell Publishing Company, New York.

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