

CAROL STUART WATSON

*The Beall-Dawson House, c. 1815
home of the Montgomery County Historical Society
103 W. Montgomery Ave., Rockville, Maryland*

THE MONTGOMERY COUNTY STORY

Published by the Montgomery County Historical Society

Gerry Wooldridge
President

Mary Charlotte Crook
Editor

Vol. 22

May, 1979

No. 2

EARLY MONTGOMERY COUNTY SCHOOLHOUSES

by Donald M. Leavitt

Public education in the state of Maryland had a slow beginning. By the year 1860, Maryland was one of the two remaining states in the Union without a public-school system. In that year the Maryland General Assembly passed a resolution establishing county-wide public schools.

Editor's Note: Donald Leavitt is graduating this month from the University of Maryland. He has majored in history and has a keen interest in historic preservation. This story is based on a paper he prepared for a course in American Architectural History which he revised, at our request, so that it would be more appropriate for publication in *The Montgomery County Story*. We thank him for his interest and cooperation.

In spite of the late start Montgomery County was not a stranger to education. For many years private and church schools had been operating in the county, the most notable being the academies at Brookeville and Rockville. Yet the average child could not receive a primary education until the state resolution. In late 1860 fifteen common schools were opened in various sections of the county; public education for the masses had begun.

The first public schools in Montgomery County were simple one-room structures with a few windows and a stove for heating. They were dark, airless buildings, not conducive to learning. Yet, through subsequent years, the schoolhouse evolved into an advanced and efficient building for learning as the county became more proficient in its design. For sixty years, from the creation of the Maryland public-school system in 1860, to the gradual integration of large, centralized schools in the early twentieth century, little one- and two-room schoolhouses were the mainstay of the educational system. This was the schoolhouse era in Montgomery County.

The problem of proper schoolhouse design was felt throughout the United States. As the demand for public education skyrocketed in the mid-nineteenth century, the deficiencies of educational structures quickly became apparent. Dirt floors, small windows, and inefficient fireplaces greatly increased the difficulty of the learning process for naturally inattentive children. The buildings were cold and drafty in winter, stifling in summer, and dimly lit all year round. It is little wonder that stern discipline was required to keep students in line.

Henry Barnard, the Commissioner of the Public Schools of Rhode Island, was appalled by the conditions he found in his state's school buildings. In 1848, he published School Architecture,¹ which contained specific design recommendations for schoolhouses. The impact of his book was far-reaching; the book made it possible for a rural school district to build an efficient, new school by following its guidelines.

Barnard's suggestions were not detailed, yet they addressed themselves to the chronic school problems of the day. A schoolhouse should be located in a quiet area, far from "idle and dissipated resorts," a recommendation aimed at the popular practice of placing schools on surplus or abandoned lots. A schoolhouse should be beautiful for inspirational purposes, an idea influenced by the then-current age of romanticism. Each sex should have its own entryway, coat closet, and clean-up facilities. Inside the building, windows should be placed 3 1/2 to 4 feet above the floor to prevent student distraction and supply a good flow of air. Proper ventilation as a science was just being discovered at this time, and most schoolhouses had uncomfortably stale air. Barnard comments, "In the school room the same poisoning process goes on day after day, and if the work is less summary, it is in the end more extensive than in the black hole of Calcutta."²

1. Henry Barnard, Schoolhouse Architecture; or Contributions to the Improvement of School Houses in the United States (New York: A.S. Barnes and Co., 1848).

2. Ibid., p. 46.

School Architecture was widely used by rural school systems throughout the United States as a basis for their schoolhouse design. In 1860, when Maryland created its public schools, the design and construction of buildings was considered the responsibility of each county. Barnard's book was well-known in America, and its recommendations were certainly available to county school officials.

In 1863, a one-room schoolhouse was built near River Road at Seneca. Constructed of rough-faced stone from the same quarries that supplied stone for the Smithsonian Institution and the Capitol, the little structure thoroughly fulfilled Barnard's precept of beauty. Nestled on the front of the Seneca Schoolhouse was a little entrance vestibule. Students entered through



Seneca Schoolhouse

a single door and hung their coats in this space, just as Barnard suggested. Although the builders did not provide separate outside entrances for each sex, it was apparent that they felt the division of the sexes was important. Leading out of the little vestibule into the classroom were two separate doorways, one for girls and one for boys.

Wooden wainscoting or paneling lined the bottom 2 feet of the walls. Wainscoting was intended to protect walls from the ravages of children, yet Seneca's short band would not provide much protection from an energetic pupil.

Two windows graced each side wall and, combined with an open front door, would provide the only light and ventilation for the room. This arrangement

would not be sufficient, and the Seneca Schoolhouse would fall into Barnard's "black hole of Calcutta" category. At 2 1/2 feet from the floor, the windows were a foot under Barnard's minimum recommended height of 3 1/2 feet and at exactly the right height for a bored child to gaze out.

Fifteen years had passed since the publication of School Architecture, yet few, if any, of Barnard's important recommendations were followed in the construction of the Seneca Schoolhouse. Seneca was one of the better early county schools, as many were described as hastily built, and a few were no more than log cabins. Montgomery County had much room for improvement in its schools.

The next major work on schoolhouse design was published by the Freedmen's Bureau in 1868.³ Intended for use in the reconstruction South, A Manual on Schoolhouses and Cottages for the People of the South supplied guidelines in school design which were not limited geographically. Barnard's twenty-year-old guidelines were used and expanded upon.

The inside of the classroom was the major focus of attention, and specific color schemes were mentioned. All window and door frames were to be dark brown; the walls, a light drab; and the 4-foot-high wainscoting, stained. Blackboards were treated as a major educational device, and it was recommended that they be placed at a height of 2 feet from the floor so all children could reach them. This seemingly insignificant change represented a major shift in educational philosophy. Students were no longer expected to sit rigidly through lectures but were encouraged to become full participants in the learning process.

A departure from Barnard's book came in the area of air flow. The science of ventilation had improved even further by 1868, and a novel ventilation system was suggested. "Ventilating tubes" were to be installed on both sides of the classroom, stretching from the floor up through the ceiling. In cold weather the unheated air would be drawn into the bottom of the tube and out through the ceiling, expelling the stale air from the roof. A "forced ventilation" system could be created if a lantern were to be placed 5 feet above the floor inside the tube. When lit the lamp would draw cold air up from the floor towards the roof vent. The efficiency of this system was not commented upon.

To satisfy the educational needs of children in the Mount Ephraim area, the county, in 1879, constructed a school known as Poole's Tract. The original building was a one-room wood-frame structure, 25 feet by 30 feet in size. Sometime in the next two decades a second 25-foot by 20-foot room was added, with a small corridor separating it from the older section.

In the older classroom, three windows lined the northeast and southwest walls. They were 3 feet by 6 feet in size, yet, because of the room's large size, the lighting would have been dim and the air flow minimal. The windows

3. U.S. Bureau of Freedmen and Abandoned Lands. A Manual on Schoolhouses and Cottages for the People of the South, by C. Thurston Chase (Washington, D.C.: Government Printing Office, 1868).

stood 3 feet from the floor, a height making it possible for some of the larger pupils to peer out.

Olive green wainscoting lines the lower 3 feet of the walls, a satisfactory height for protecting the walls from the wear and tear of the classroom. The earliest wall color was probably pastel blue, a suitable color for reflecting light. The blackboard was actually plaster painted black. Slate was an expensive luxury and rarely used at this time.

The addition had two windows on each side wall; the windows were the same dimensions as those in the older room. The walls were, it appears, white plaster with olive green wainscoting. The white walls provided good light reflection and would have helped to brighten the classroom. The hallway doubled as an entry vestibule and cloakroom, as coat hooks lined the walls. Gone from Poole's Tract Schoolhouse were the clumsy entrances and the low wainscoting found at the earlier Seneca School. Although Poole's Tract did not measure up to the standards recommended in the report of 1868, the schoolhouse, nonetheless, represented an advancement in Montgomery County school construction.



Poole's Tract Schoolhouse, West Side

In the twelve years following 1868, the ideas and principles of schoolhouse design evolved rapidly. The Department of Education published Rural School House Architecture⁴ in 1880, a work which, for the first time, set down

4. U.S. Bureau of Education, Rural School House Architecture, Circulars of Information No. 4 (1880).

detailed guidelines for the design and construction of schools. Once again Barnard's original work was expanded upon. The axial positioning of the schoolhouse was now important. For optimum lighting and temperature control the schoolhouse was to be on an east-west axis with the windows facing north and south. Glare and heat from the direct sunlight would be avoided, and a more even distribution of light could be obtained, an important consideration in an era that depended on oil lamps and candles for indoor lighting.

As in earlier studies, separate entryways with vestibules and cloakrooms were urged for each sex. The 1880 report carries this recommendation one step further and suggests that the boys' doorway be located where the teacher could observe all that went on, and the girls' entrance be on the south end where the sun shines most often.

As knowledge of proper ventilation methods increased, so did the severity of the warnings of its necessity. The 1880 report states, "The amount of fresh air which is offered to hospital patients is about 2,500 cubic feet per hour. Criminals in French prisons have to content themselves with 1,500 cubic feet per hour. Assuming that we care two-thirds as much for the health of our children as we do for that of our thieves and murderers we will make them an allowance of 1,000 cubic feet per hour."⁵

Large grouping of windows 7 1/2 and 8 1/2 feet tall were the recommended source of this allowance, and the windows were to extend to within inches of the ceiling to provide the best possible reflection of light and air. To avoid classroom distractions or annoying breezes, the windows were to be placed a full 4 feet from the floor.

By the end of the nineteenth century, Montgomery County had become more proficient in schoolhouse design. In 1893, the Kingsley Schoolhouse was built in a stream valley in the upper county. This wood-frame building was considerably advanced over earlier designs. The recommendations of axially mentioned in the 1880 report were heeded by Kingsley's builders, as the schoolhouse sat on an east-west axis, with windows on the north and south sides. Three large 3-foot by 6 1/2-foot windows graced the north wall, while the more sheltered south wall had four slightly wider windows. These windows were not as large as those recommended, nor were they grouped together, yet they were large enough in relation to total floor area to provide ample light and air for the pupils. However, a 2-foot gap existed between the top of the window and the ceiling, not the few inches recommended for the best air and light flow. The windows also stood only 3 feet from the floor, a height at which students would be easily distracted by breezes and outside activity.

Brown-stained wainscoting lined the bottom 3 1/2 feet of the walls and, at that height, would efficiently guard walls from the ravages of school children.

There is evidence that a small entry vestibule once stood at the front of the school, but it does not exist today. There are, currently, two cloakrooms built into the back of the school, a feature strongly recommended by

5. Ibid., p. 66

authorities. Whether these cloakrooms are original or later additions is not known.

A unique feature of the Kingsley Schoolhouse is a 1-inch by 12-inch slit built into the stone foundation on the south side of the building. This slit apparently was to provide for air circulation under the floor, a recommendation first made in 1880.

Although the Kingsley Schoolhouse does have some design deficiencies, advancements in the size and placement of the windows indicated the county's growing proficiency in design. The classroom was no longer Barnard's "black hole."



Kingsley Schoolhouse, Viewed from the Southeast

In 1914, the last of the government schoolhouse design books was published by the U.S. Bureau of Education. Rural Schoolhouses and Grounds⁶ follows the studies of 1868 and 1880 by expanding the guidelines set down by Barnard sixty-six years earlier. Like the 1880 report, Rural Schoolhouses and Grounds provides a comprehensive set of recommendations for rural school districts to follow in constructing their buildings.

6. U.S. Bureau of Education. Rural Schoolhouses and Grounds, by Fletcher B. Dressler, Bulletin No. 12 (Washington, D.C.: Government Printing Office, 1914).

The most significant change in 1914 came in the area of classroom coloration. It was recommended that the ceiling be a light color to provide for good light reflection. Wainscoting was to be either light brown or dark gray, and absolutely no reds were to be used in the classroom as they might "produce disagreeable mental effects." In relation to blackboard color, the 1914 report has this to say: ". . . a decidedly green blackboard is very trying on the eyes and disturbing to the sensibilities. Many people suffer when in the presence of much green color and (it is safer) to use a dull, dead black."⁷

The 1914 report represented the culmination of the schoolhouse design studies which date back to 1848. By the time of this last publication a rural school district could construct an efficient educational building by following the guidelines in the reports. The science of schoolhouse design had progressed a great deal since Henry Barnard first recognized the problem.

In the years around 1910, a flurry of construction activity took place in the school system of Montgomery County. The demand for public education had jammed many schools, and, in response to the overcrowding, a basic two-room schoolhouse design was developed and adapted to several sites in the county. The new style was easily recognizable from its cottage-shaped predecessors by its tall, dignified appearance, large entrance portico, and wide, two-classroom shape.

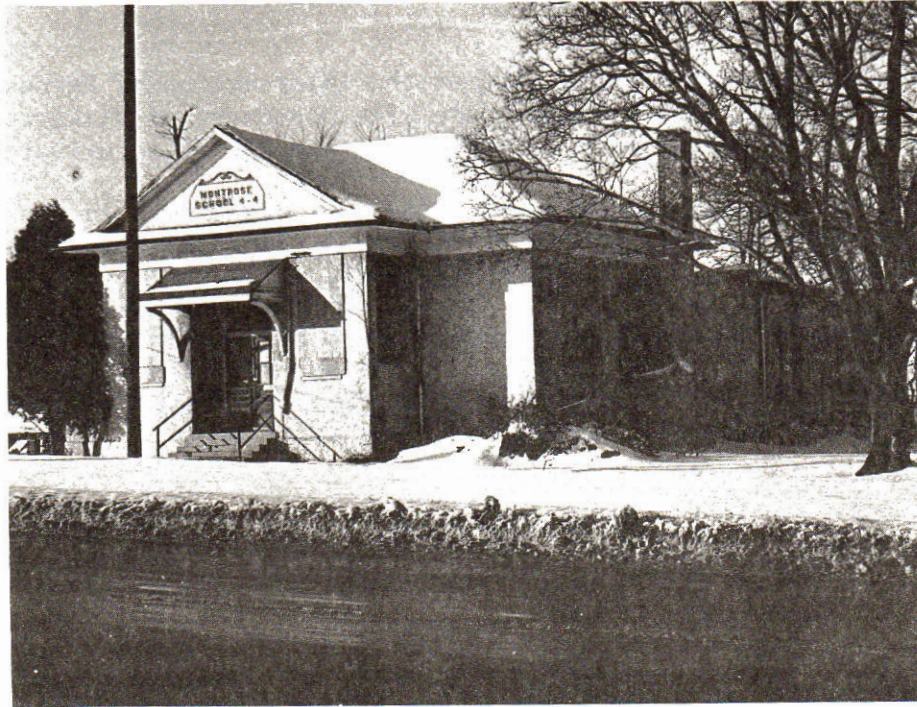
In 1909, a stucco-covered version of this two-room plan was built at Montrose. The floor of the schoolhouse sat several feet off the ground, creating a ventilation space in the foundations and necessitating the use of an entry staircase. The entrance itself was recessed, providing protection from the elements for the school children. Montrose School was one of the first in the county in which this simple feature, recommended by all design specialists, was used.

Two doors opened into a vestibule which was flanked by two large cloakrooms. There was ample storage space for students' coats and equipment, as well as space for small teachers' closets which opened into each classroom. The classrooms themselves were very spacious, with a grouping of five 3 1/2-foot by 6 1/2-foot windows on the west and east walls and a single window in the back of each room. Only 12 inches separated the top of the window from the ceiling; coupled with the large area of window space this height would have allowed for excellent lighting. There is a 4-foot space from the floor to the window sill, sufficient height to keep a distracted child from looking out.

Air vents were incorporated into the roof and foundation. As a result of the vents, the large air space under the floor and above the ceiling, and the large windows, air ventilation would have been good.

A light gray color appears to have been the original wall color, and the wainscoting was stained brown as recommended.

7. Ibid., p. 50.



Montrose School

The chimney and the addition to the rear were added about 1950.

The two-room plan at Montrose represented the zenith of schoolhouse design in Montgomery County. After many years of trial and error, the county created a competent and efficient schoolhouse plan and design which followed the guidelines set down by the experts.

The two-room plan also represented the end of schoolhouse use in the county. With ever-increasing pupil enrollment and changing educational philosophies, the trend turned toward consolidation. A large school building could replace a dozen or more schoolhouses and eliminate duplication in teaching staff. One by one the schoolhouses were closed, and the pupils were transferred to larger facilities. After sixty years of service to education, the schoolhouse era in Montgomery County came to a close.

It is still possible to visit schoolhouses in the county. All four of the buildings mentioned here are still standing, while many others have been converted into houses, stores, or churches, or have been abandoned.

Seneca Schoolhouse stands on the south side of River Road, approximately one-half mile west of Seneca Landing. This schoolhouse is believed to be the oldest remaining public school in the county, and Historic Medley District is

working toward its preservation. The building is boarded up, and visitors should not try to enter.

Poole's Tract Schoolhouse sits at the intersection of Barnesville and Mount Ephraim Roads, approximately one mile northeast of Dickerson. The building has been converted into a storage shed and is on private property.

The Kingsley Schoolhouse is situated near Hyattstown in the southeast corner of Little Bennett Regional Park. It is accessible by several walking paths and stands in a very picturesque little valley.

The Montrose Schoolhouse is located on Randolph Road in Rockville, one-quarter mile east of Rockville Pike. Peerless Rockville Historic Preservation Ltd. is working toward its restoration and reuse. The building is boarded up, and visitors are requested to view only the exterior.