

The Evolution of the American Schoolhouse

The evolution of the American schoolhouse has reflected the changing economic history of our nation, an evolving education philosophy, and a continuing drive for equity and full citizenship by racial minorities and immigrants. Education has always played a role in America's progress. Even in the earliest years of the Republic, Congress recognized the value of education. Surveying teams sent West under the provisions of the Northwest Ordinance of 1787 were required to divide new townships into four equal parts and set aside one part for schools and courthouses.

In time, America's iconic one-room rural schoolhouse gave way to the demands of the Industrial Age and the creation of multistoried common schools in the nation's growing urban areas. Horace Mann and other reformers in the 1850s created a system of free public education, in part to pass on the civic virtues and democratic values of the Republic to new immigrants flooding into the country. The need to educate large numbers of students and to Americanize the continuing flood of new immigrants would dominate American education until well into the 1920s.

By the beginning of the 20th century, "a majority of Americans age 7 to 13 attended school. But only one in 10 remained in school beyond the age of 14, and fewer than 7 percent of 17-year-olds graduated from high school."¹ In the early years of the 20th century, a growing effort was made to increase the number of children going to high school. According to Stanford education historian David Tyack, "Americans built one new high school a day from 1890 to 1918. High school enrollment swelled from about half a million in 1900 to 2.4 million in 1920 and to more than 6.5 million in 1940."²

At the time, educators struggled to find a balance between competing educational philosophies: "Taylorism,"³ with its intense focus on factory-like efficiency and standardization, eventually led to the development of standardized testing. Meanwhile, the Progressive movement led by John Dewey advocated a more child-centered form of education and the development of active and well-informed citizens.

Jeff Lackney, a historian of educational architecture, has made the point that the "general acceptance of various innovations and paradigms in educational design usually occurs many years following a specific innovation."⁴ A good example is the Crow Island School in Winnetka, Illinois, which was built by the architect Eero Saarinen in 1940 and is now considered "among the first of U.S. schools to incorporate concepts of progressive education into its design."⁵

Crow Island was the first school to move away from the "traditional two-story square and rectangular schools of the day"⁶ and to develop an open-plan campus. Saarinen's success stemmed, in large part, from his willingness to center his design on the children. Saarinen's novel architecture included extensive storage built into the L-shaped rooms, space for multiple instructional strategies (including group projects), and well-thought-out lighting and window walls that linked the school to the immediate outdoor environment.

In 1956, 50 architects and scholars selected Crow Island as 12th among all buildings and 1st among schools in an *Architectural Record* poll naming the most significant buildings of the past 100 years in America. In 1971, the American Institute of Architects honored Crow Island, declaring that "there have been no significant advances in elementary school design since Crow Island School."⁷ The school is now listed in the National Register of Historic Places.

Between 1930 and 1970, school districts across the country went through a massive period of consolidation. More than “100,000 schools were closed and the average school size increased fivefold.”⁸ The movement to consolidate reflected a host of factors: the decline of America’s rural farm economy, the rapid suburbanization, the need to meet the demands of the post-World War II baby boom, and a desire to professionalize American education.

This “big is better” and “one size fits all” approach, which defined American culture in general, would lead to the construction of thousands of large comprehensive high schools. This new approach to school design was greatly encouraged by the 1959 Conant Report (named after its author James Conant, the president of Harvard University).⁹ This report, which was based on a survey of more than 2,000 high schools, concluded that large, comprehensive high schools “were more cost-efficient and provided higher-quality education through a wider range of course offerings.”¹⁰

Another milestone in school design was the establishment in 1958 of the Educational Facilities Laboratories (EFL) by the Ford Foundation. EFL has been hailed as having a greater effect “on educational facilities than any other single force in the history of American education.”¹¹ During its 28 years (1958-86), EFL led the way in a host of innovations, including the open-plan school, the development of standardized methods for constructing school buildings, the expansion of middle schools, and the redesign of libraries to focus on the individual needs of readers.

Photo: @Target



EFL also encouraged new spatial organizational methods—from the promotion of folding and movable walls to team teaching and the use of new media such as television in the classroom. EFL’s research and studies stretched across the broad spectrum of educational needs from the use of air conditioning to the promotion of joint use, the development of schools as community centers, and the use of citizen participation in the planning process. Though not successful in all its initiatives—particularly the controversial open plan—EFL set a standard for innovation that has yet to be equaled.

>> Participants in the Design for Learning Forum visited the InterDistrict Downtown School in Minneapolis.

Through out the 20th century, school design had little positive effect on the plight of minorities when it came to improving education. African-American children in the South had to endure gross inequality with respect to school facilities. This inequality was legally sanctioned by the “separate but equal” doctrine established in 1896 by the U.S. Supreme Court in *Plessey v. Ferguson*. Three years later, the same Supreme Court ruled in *Cumming v. Richmond County Board of Education* that “separate but equal” did not necessarily mean that black students have the same right to a high school education as white students. This landmark case sanctioned the *de jure* segregation of America’s public schools and would not be overturned by the U.S. Supreme Court until *Brown v. Board of Education* in 1954.

Throughout the 20th century, school design had little positive effect on the plight of minorities when it came to improving education.

Indeed, one of the chief complaints that the National Association for the Advancement of Colored Persons brought to the Supreme Court in 1954 in the landmark case of *Brown v. Board of Education* was the lack of decent public school facilities for minority children. The lone bright spot in school design for African Americans in the South was the development of state-of-the-art architectural plans that were initially drawn by professors at Tuskegee Institute for the 5,000 Rosenwald Schools. By the 1930s, these school facilities provided a place to learn for one-third of all African-American children in Southern schools.¹²

One of the continuing themes in the history of school design is that society continues to assign public education new and additional responsibilities. Schools have gotten bigger because they have been assigned more things to do. The demand for better-skilled and more physically fit soldiers during World War I led to the development of vocational education and a growing demand for physical education. The shock of Sputnik in 1957 encouraged the National Science Foundation to invest \$500 million over a 20-year period in reforming science education and spurred school districts to spend millions of dollars to build science labs.

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In the 1960s, the growing awareness that there were deep pockets of rural and urban poverty encouraged President Lyndon Johnson to launch the “War on Poverty,” which added the school breakfast and school lunch program to the tasks assigned to public education. Over time, public schools have provided a growing array of health and social services. Community school activists have been at the forefront of efforts to get policy makers to acknowledge the multiple roles that our nation’s schools now play in providing services to children in order to close the achievement gap.

In the 1990s, American education was given three new tasks. The passage in 1990 of the Americans with Disabilities Act requiring accommodations for special education students added a new dimension to school design. The advent of the Internet launched a national effort to wire our nation’s schools. Net Day became every day as schools were assigned the task of overcoming the digital divide. Computer labs became the great new space in thousands of new schools built in response to the baby boom echo. The new and growing demands by working parents for schools to provide high-quality after-school programs is only the latest task that must be integrated into the design of future schools. American education in the past 50 years has had to adjust to a host of dynamics that have had significant implications for school design. While not inclusive, seven major trends have had significant impact on how we design our nation’s schools:

- The demand for greater equity in the financing and construction of new schools, which has led to major tax reform in many states
- The need to spend billions of dollars annually to build thousands of new schools in response to the baby boom echo

