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Source: *Journal of the Society of Architectural Historians*, Vol. 55, No. 3 (Sep., 1996), pp. 238-253

Published by: [University of California Press](http://www.jstor.org/stable/991147) on behalf of the [Society of Architectural Historians](http://www.jstor.org/stable/991147)

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Lancasterian Schools, Republican Citizenship, and the Spatial Imagination in Early Nineteenth-Century America

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In the opening years of the nineteenth century, Joseph Lancaster's pedagogy was adopted in the public schools of most of the largest cities of the United States. By the middle of the century, it had been discredited and abandoned. Nevertheless, Lancasterian education (also called the mutual or monitorial system) linked the shaping of youthful character to specific spatial settings in a manner that bears reexamination in the light of current interest in the public realm. It has much to say about the conceptions of public space and citizenship in the early years of the American republic.

Joseph Lancaster (1778–1839) developed his method in the late 1790s for use in his Royal Free School in Borough Road, Southwark, London. The Borough Road school was a charity school, and the poor were Lancasterian education's intended subjects everywhere. The distinguishing feature of a Lancasterian school was monitorial instruction. In a single, outsized classroom, enormous numbers of students were subdivided into smaller groups, or classes, according to their level of advancement. Under the eye of a monitor, a slightly more advanced student, each class recited its lessons at a semicircular station, or draft, along the side walls of the schoolroom [*Figure 1*]. The students were organized in hierarchical flights of classes and monitors that ascended to the level of the teacher, who oversaw the entire school and supervised the highest-ranking monitors.¹

Like many other social reform schemes in early nineteenth-century America, Lancasterianism, and later Joseph Lancaster himself, traversed the republic along a network of philanthropists who belonged to the Society of Friends, or Quakers. These men and women were drawn to social reform by their belief that all people shared an "inner light," or divine spark, that might be cultivated to their own and society's benefit. Moreover, most male Quaker reformers were well-to-do businessmen who

might have been expected to play an active political role in the new nation. In the third quarter of the eighteenth century, however, American Friends withdrew dramatically and decisively from all political action. Educational reform, along with penal reform and the establishment of asylums of all sorts, became an avenue for Friends to affect the course of society outside formal politics.

In 1804, the London Friend Patrick Colquhoun sent a copy of one of Lancaster's pamphlets to Thomas Eddy (1758–1827), a Philadelphia-born Quaker merchant living in New York. Eddy distributed a thousand copies of the tract in New York and Philadelphia, and in 1805 he persuaded the Quaker-led Free School Society to adopt the monitorial system in New York City.² Influenced by Eddy's work in New York and by a London Friend named Benjamin Shaw, Philadelphia Quaker reformer Roberts Vaux (1786–1836) engineered the introduction of Lancasterian instruction into that city's new public school system in 1817.³ When Joseph Lancaster emigrated to the United States in 1818, a lecture tour in the northeast, culminating in an address to Congress, bolstered the visibility and popularity of his ideas. Eventually, he opened a short-lived Lancasterian Institute in Baltimore to train prospective teachers.⁴

Through similarly personal networks, Lancasterianism diffused from the large cities to the hinterlands. Knowing of Vaux's advocacy of monitorial schools, for example, small-town schoolmasters wrote to him for advice on school architecture and management.⁵ By the 1830s there were monitorial schools as far west as St. Charles, Missouri, and as far north as Maine.⁶ Lancasterianism was adopted as the official pedagogy in New York City (1805), Albany (1810), Georgetown (1811), Washington, D.C. (1812), Philadelphia (1817), Boston (1824), and Baltimore (1829), and Pennsylvania's legislature considered adopting it statewide.⁷ Mutual instruction was also used in Sunday schools, orphanages, houses of refuge (reform schools), and almshouses in the new nation's largest cities.⁸

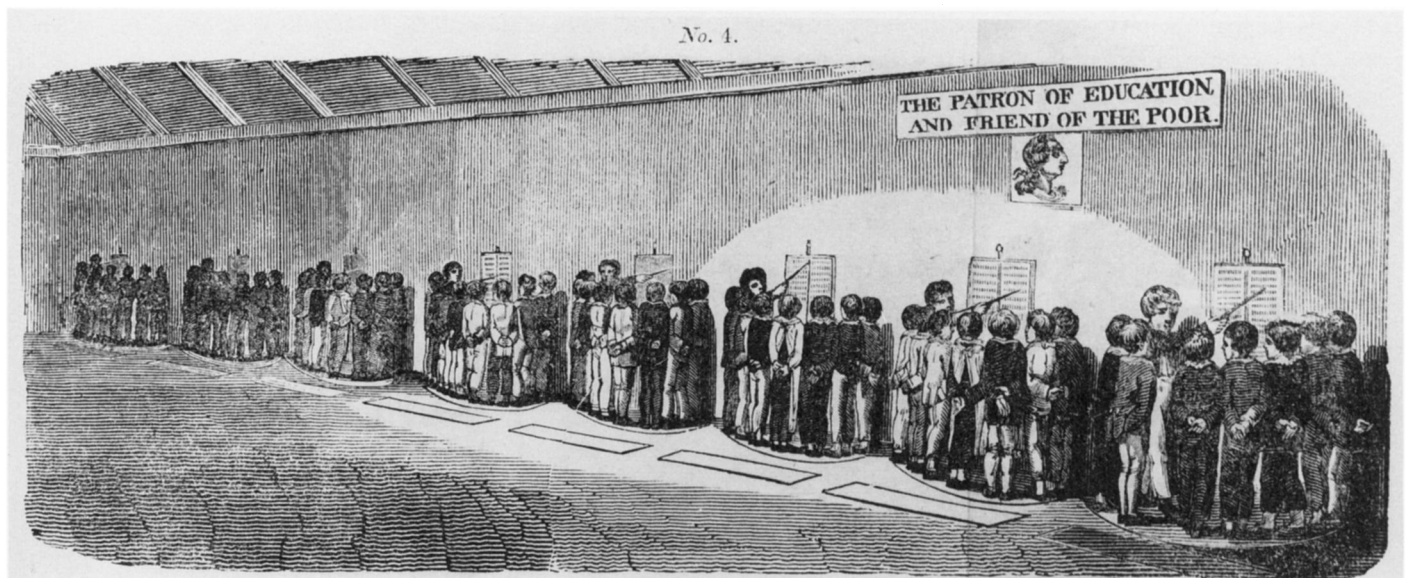


FIGURE 1: Students reciting at drafts, Royal Free School, Borough Road, London, from Joseph Lancaster, *The British System of Education* (London, 1810), figure 4. Note the portrait of George III and its caption, "The Patron of Education, and Friend of the Poor."

Lancaster's method found a willing audience among the hard-nosed businessmen who created American public schools in the early nineteenth century. It offered a vision of citizenship, and of the ways in which citizens might be formed, that appealed to the leaders of a nation struggling to define republican citizenship. Those leaders were uncertain how Americans would relate to one another in daily life, especially in cities, but they were confident that carefully conceived spatial arrangements could direct civic life into appropriate channels. Lancasterianism was a strongly spatialized educational method whose distinctive characteristics and potential to create citizens suitable to a new society stimulated the republican spatial imagination.

By *spatial imagination* I refer to a habit of thinking about social relationships physically. The spatial imagination envisions relationships among people as a synthesis of physical and nonphysical qualities. It conjures up a kind of Platonic space that encompasses all possible connections, all desirable relationships, at once. This fusion of the material and the nonmaterial can never be achieved in the real world, for the spatial imagination addresses the "ought-tos" rather than the "can-bes" of social and spatial life. The Lancasterian school was an imaginary social space that could never be fully realized, but it resonated so intensely with the republican spatial imagination that its disciples failed to shake off its spell long after its impracticality had become apparent.⁹

ECONOMY

There are obvious reasons why mass public education of any sort seemed so necessary in the new nation. Among them was the rapid socioeconomic stratification of its cities. The experience of Philadelphia, the largest American city in 1776 and a

hotbed of American Lancasterianism in the early nineteenth century, is representative.

The Quaker City ballooned at a rate that worried many of its residents. Its population increased five times between 1750 and 1800, or about 3.4 percent a year.¹⁰ This urban population was increasingly fragmented: poor Scots-Irish and German immigrants and African Americans, newly freed by Pennsylvania's emancipation laws or by their own efforts in escaping from Southern slavery, swelled the city's underclass. And while in 1800 the city as a whole was wealthier and its economy more flexible, diverse, and volatile than before the Revolution, disparities of wealth were much greater as well. At the beginning of the nineteenth century, middle- and lower-class Philadelphians commanded a much smaller share of the city's resources, their prospects were much shakier, and the economic and cultural abyss between them and the urban elite was much wider and more difficult to cross.¹¹

The founders of the urban public schools of the United States sat on the upper side of this divide. They were mostly merchants or retired merchants who believed the nation's fortunes (and their own) depended on a strong economy and an orderly civil society; but when they looked about them, they believed they saw a city overrun with poor, unemployed, and often unemployable men, women, and children who threatened the nation's economic prosperity and its civic peace. Thomas Eddy, who introduced Lancasterianism to America, understood the connection. He considered both his political support of "Internal Improvements," or government-subsidized economic infrastructure, and his promotion of schools and other social institutions as complementary expressions of the same "improving spirit."¹²

To those who knew the value of a dollar, who spoke a new

language of “worthy” and “unworthy” poverty, of wise or wasted benevolence, moreover, monitorial schools seemed to offer mass education at a popular price through frugality on a visionary scale.¹³ “The simple fact, that 300 children, under the superintendence of a competent teacher, may be rapidly and efficiently instructed, in all the elementary branches of an English education, for a sum of less than \$2.50, each child, per annum, is of itself conclusive [of the value of Lancasterianism],” wrote the principal of Philadelphia’s Model School.¹⁴

Frugality was achieved by teaching the greatest possible number of students in the largest possible space with the fewest possible resources. The ideal Lancasterian classroom was an undivided space, the larger the better. Lancaster recommended a “long square or parallelogram” in the proportion of 3:5 [Figure 2]. The master’s desk was to be placed on a platform at one end, and the desks and forms (benches), fixed to a sloping floor, should all face the platform to allow eye contact with any student at any time [Figure 3]. The room should be as open as possible, with ample space between the rows of desks to allow students to move without disturbing each other: “There is no propriety in filling a room with timber when space is wanted for children.”¹⁵

American schools followed this model in a general way. The New York Free School Society’s manual of 1820 reproduced Lancaster’s ideal plan, while the city’s manual of 1850 included plans of Public School 17, built in the 1840s on lines only

slightly modified from the master’s recommendations [Figures 4, 5]. P.S. 17 was an 80-by-42-foot rectangle, two stories high. One entire floor was given over to the grammar school, with fourteen rows of benches facing a teacher’s desk and utility rooms at either end. The ground floor was divided into two rooms, for the infant and primary schools. In American cities, infant schools, and sometimes primary schools, used the Pestalozzian method of instruction, which stressed the simultaneous mental and physical development of the young child.¹⁶ Consequently, both the lower rooms at P.S. 17 departed from Lancaster’s preferred plan in the arrangement of their desks and in the amount of open space left in the classroom.¹⁷ Baltimore’s pilot Male School No. 3 (1830) was a 45-by-75-foot building containing two ranks of twenty desks.¹⁸ A crude prototypical plan published by Boston’s school trustees showed a nearly square room with only five ranks of desks, a master’s desk at one end, and drafts (recitation stations) along two sides [Figure 6].¹⁹

Philadelphia’s Controllers of the Public Schools refined Lancaster’s recommendations by moving the master’s desk to the middle of a long wall in the city’s Model School (1818) and in its Southwark School (1820) for girls [Figures 7, 8]. The Model School’s “oblong square” classroom was 80 feet by 40 and had three ranks of desks and benches separated by 3-foot aisles. Drafts 3 feet in diameter, set 18 inches apart, were marked out by wires along the side walls.²⁰ In 1828, J. M. Patton of Milton, Pennsylvania, sent Lancasterian guru Roberts Vaux a plan of a new school that was obviously based on the Philadelphia building [Figure 9]. Patton’s proposed schoolroom, a 40-by-60-foot space, was arranged in three ranks of ten 14-inch-wide desks with 10-inch-wide benches. These were separated by 12-inch walkways. At each end of the room, a 6-foot passage accommodated the “Monitors Draft Circles,” foot-high platforms on which classes were to stand during recitations. The teacher sat in the middle of the long side on a platform raised 2 feet from the floor, between the 3-foot-wide passages that separated the banks of desks.²¹ Despite the innovations in some of Philadelphia’s flagship schools, the oblong proportions of the surviving Mifflin School (1825) and photographs of demolished schools in the city, as well as the surviving building in Georgetown, D.C. (1811) suggest that for the most part Americans tended not to depart much from Lancaster’s suggestions [Figures 10, 11, 12, 13].²²

Lancaster argued that the monitorial system was the most economical method of education because it allowed a single master to educate up to 1,000 pupils in one enormous room.²³ Economies of scale comparable to that of the most efficient factory were available to those with the nerve to build in sufficiently grandiose dimensions.²⁴ Londoner Benjamin Shaw scolded Philadelphia’s Controllers of the Public Schools for their timid model schoolroom: it was only 30 by 50 feet and

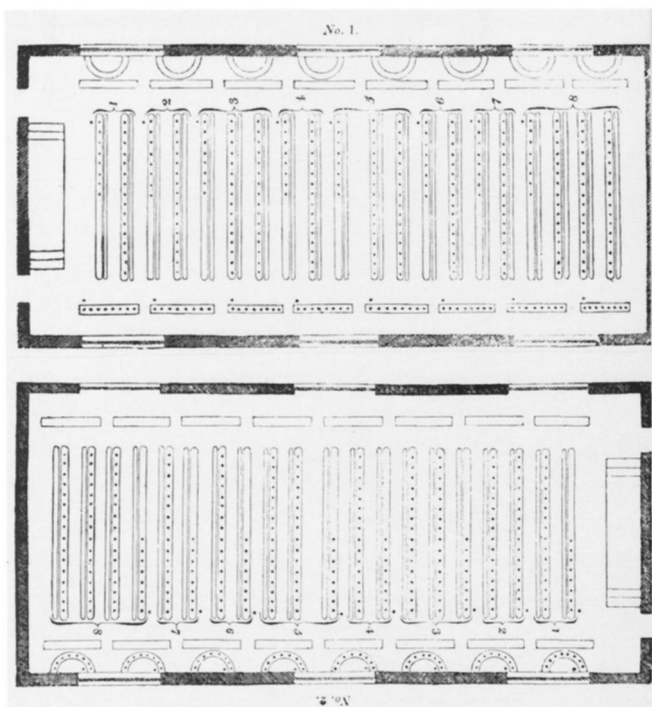


FIGURE 2: Model Lancasterian classroom, 1810, from Lancaster, *British System of Education*: figures 1–2. At one end is the master’s platform, with student entrances to either side of it and semicircular drafts, or recitation stations, along the side walls. The dots represent the positions of individual students during classroom exercises.

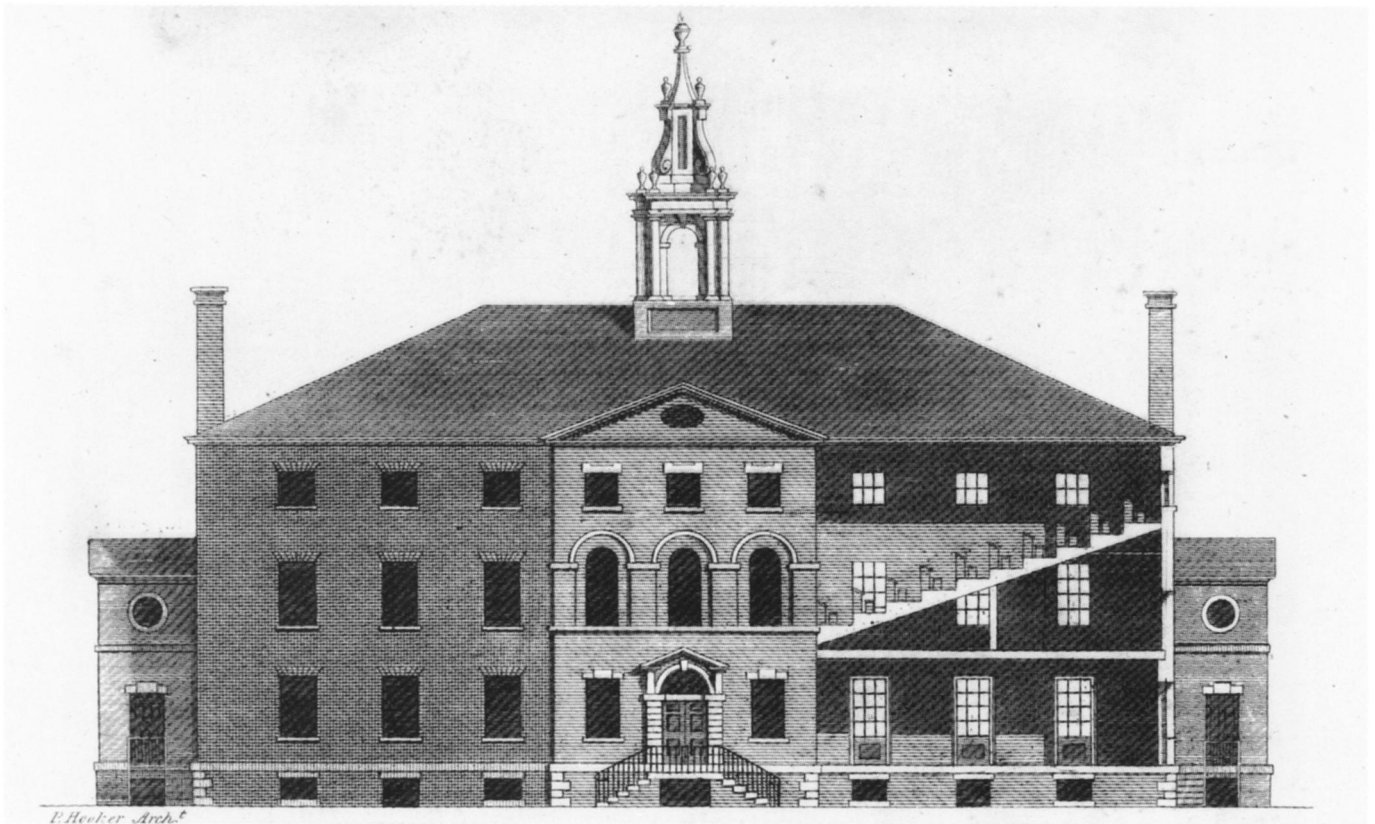


FIGURE 3: Philip Hooker, *Lancaster-School-House in the City of Albany*, 1815, from *American Magazine*, 1816, illustrating the sloping floor of the classroom

would hold no more than 180 to 200 pupils. Such a plan, Shaw argued, “strikes at the root of Economy. . . . A School room should be erected of dimensions sufficient to contain on one Floor, at least, 500 children because a less number will not ensure an economic result & may consist of 2 Stories, one for Boys & one for Girls,” thus achieving Lancaster’s magic number of 1,000.²⁵

Although American school boards did not build to Lancaster’s recommended scale, their classrooms were very large. Baltimore’s Male School No. 3 was intended to seat 360 boys.²⁶ The Patton plan for Milton, Pennsylvania, was intended to hold 250 children, while its inspiration, Philadelphia’s Model School, was designed for 339.²⁷ In 1833, the Quaker City’s school board reported as many as 386 children in some classrooms, and they ordered the construction of 40-by-80-foot additions to all of their existing buildings to house Infant Schools that would accommodate 300 of the youngest pupils in each.²⁸ Whether the rooms ever held that many is open to question. An anonymous critic accused the Controllers of overreporting class sizes to disguise the schools’ per capita cost. Although they claimed that 329 boys and 267 girls were enrolled in the Model School in 1821, this critic said, he had never counted more than 150 of either sex present at one time!²⁹

Even without 100 percent attendance, these were large, crowded rooms filled with what a Boston official euphemisti-

cally described as “well regulated noise.”³⁰ Boys in the Model School were allotted 18 inches of seat space each, while Patton’s students luxuriated in 20-inch seats (about what one gets in the economy section of today’s commercial airliner) on ranks of benches only a foot apart. Yet in Joseph Lancaster’s eyes, American classrooms were overly spacious. The founder had written that “children confined in a small school-room, can no more be expected to be in order, than soldiers can perform their exercise without a parade,” but he ridiculed Americans’ faintheartedness in packing in bodies.³¹ Writing to Roberts Vaux, Lancaster compared his own spartan Baltimore classroom to “these philadelphia palaces which you call School rooms.”³²

In an era when the managers of all kinds of public institutions sought to reduce their per capita expenditures and even to realize a profit, if possible, from their clients’ labor, the potential economies of a system where enormous numbers of children in vast, bare classrooms were taught by a few, poorly paid teachers were a powerful motivation for American public school officials. Nevertheless, economies of scale alone cannot explain the appeal of the Lancasterian school.

DISCIPLINE

Lancasterians on both sides of the Atlantic eagerly seized on monitorial instruction as a promising strategy of social order. If

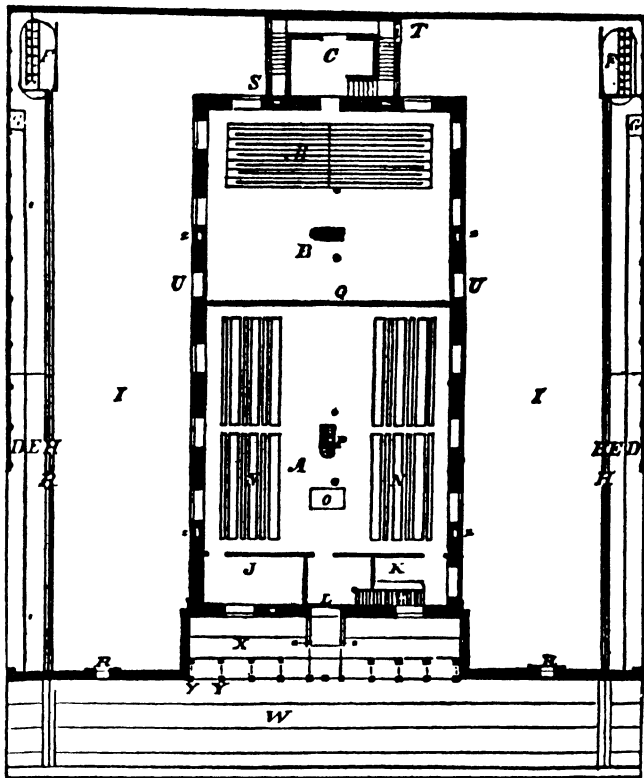


FIGURE 4: Public School No. 17, New York City, after 1842, from John Franklin Reigart, *The Lancasterian System of Instruction in the Schools of New York City* (New York, 1916), 27. First-floor plan, showing primary department, containing infant schoolroom (B) and primary schoolroom (A)

anything, Americans were more enthusiastic about the system's potential than the founder himself. Where Joseph Lancaster wrote in general terms of the moral and religious benefits of public schooling, American educators envisioned schools as the mildest of several related instruments for regulating the poor. John Ely, a Lancasterian teacher from Philadelphia, wrote that poor children were "a kind of vermin in society, which, if they cannot be reformed, should be removed from the streets."³³ The Controllers agreed: mandatory public education was a way to "rid our streets and wharves, and the immediate vicinity of the town, of the small children, who, either as beggars or petty depredators, wander about to seek a pittance for the support of their indolent and worthless parents." These children could be sent to the House of Refuge and their parents denied poor relief.³⁴ Yet poor children's refusal to attend was, as the Controllers' statement grudgingly acknowledged, a result of the necessity to contribute to their families' support by the time they were seven or eight years old. In response, the Board of Control set up infant schools, a kind of proto-kindergarten preceding Lancasterian education. Here educators hoped to receive "children generally uncorrupted, when their minds are susceptible of deep and lasting impressions, and when, but for such institutions, they would be exposed to the contamination and corruption, necessarily attendant upon wandering through

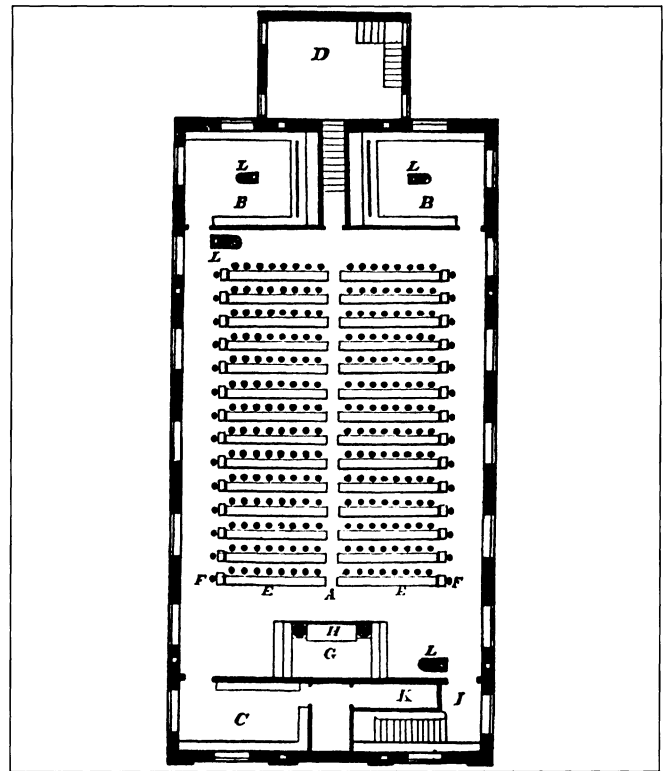


FIGURE 5: Public School No. 17, from Reigart, *Lancasterian System*, 26. Second-floor plan, showing Lancasterian schoolroom

the streets."³⁵ Here and in monitorial classrooms, Philadelphia industrialist James Ronaldson told Roberts Vaux, poor children would learn "not to break windows, riot on the street, break our fences, steal or take flowers & fruit; wait at play house doors & beg checks, abuse those weaker than [them]selves, and when [they] grow up [to] do [their] duty honestly."³⁶ In short, public schools were one of a kit of tools that also included, in order of increasing severity, Sunday schools, almshouses, houses of refuge, and penitentiaries. All were at the disposal of Eddy, Vaux, Ronaldson, and their associates as members of the interlocking directorates that controlled all the public and private social institutions of the early republican city.³⁷

To anarchy in the streets, the monitorial system opposed military discipline and hierarchy. As the trustees of the Albany, New York, Lancasterian school wrote, monitorial education "is in imitation of the military. Its scholars are divided into classes corresponding to the platoon of a regiment."³⁸ Monitors proliferated like military officers: in Philadelphia there were draft monitors, class monitors, arithmetic monitors, reading monitors, writing monitors, and dictating monitors to oversee instruction, while pencil monitors and pass or yard monitors maintained discipline under the oversight of a General Monitor of Order.³⁹ This image of military regimentation was irresistible to authoritarian republicans like John Ely, despite the notorious lack of discipline that characterized early republican militias. Long before he became a Lancasterian, Ely had attempted

to form a regiment of a thousand boys who would march three times weekly in Philadelphia's State House Yard.⁴⁰

In addition, the Lancasterian classroom was arranged so that all the desks faced the master, facilitating the visual surveillance of which Enlightenment social theorists were so fond. Lancaster claimed that students in conventional classrooms were "wholly or partly out of the master's sight" and had "pretence for idleness and play," but that the monitorial schoolroom permitted easy "detection of offenders."⁴¹

These terms in which Ely, Ronaldson, and the Philadelphia Controllers wrote of educating the poor revealed their impatience with social deviance and their longing for a decisive solution to it. From this point of view, the Lancasterian school was an instrument of social control. To be sure, the monitorial school removed children from the streets, yet if we examine what went on in the classroom, rather than simply the relationship of school to society, it is evident that Lancasterianism was not simply reactive. Instead, it was one of a constellation of interrelated institutions that drew and defended the boundaries of republican citizenship.⁴² The motive was to discipline the poor, while the strategy was to train the poor to discipline themselves. Bricks and mortar defined the boundaries of citizenship, but boundaries were effective only when they were inscribed within the citizen.

The idea of external social control consequently gives way to a psychosocial notion of self-control. Michel Foucault taught us

to recognize the complex ways in which institutions such as the Lancasterian school used visual surveillance and bodily choreography (which he, like the overseers of the Albany Lancasterian school, grounded in military training) to instill social order by inscribing behavioral norms and social values within the citizen. For Foucault, the clues to social power lay not in the application of repressive force from without, but in the content and control of knowledge of oneself and others.⁴³

Both the language of social control and the techniques of self-discipline were openly and explicitly proclaimed by Lancasterians. Apparently natural hierarchies of learning, as well as the spaces within which these were acted out, were meant to represent and reproduce the contingent hierarchies of social power. Still, to account for the appeal of American monitorial schools, their character as a spatial system, and the reasons they may have succeeded or failed, it is necessary to move beyond the generic language of social control and disciplinary technologies. Lancasterian schools and other therapeutic institutions did not arise from an abstract fondness for repression or power, but from a specific historic context, in which elites in a new political system groped for ways to make it work. An isomorphic language connected politics, science, society, and space in ways that made Lancasterian schools and their sister institutions appear to be effective solutions to the political and social questions that American republicans posed for themselves. While the "therapeutic" vision of the Lancasterian school and its brother institutions was undeniably repressive, it was a repression born of optimism, a misguided attempt to recruit republican citizens from among the downtrodden.

REPUBLICAN CITIZENSHIP

Out of the turmoil of the years between 1765 and 1787, republicanism emerged as the unifying political idea of the new nation. The irreducible core of this "protean concept" was popular sovereignty, or the notion that the fundamental political rights enjoyed by all humans existed prior to political or social institutions as a perquisite of common membership in the species. As humans, we lend sovereignty, or political power, to the state rather than deriving our own powers after the fact from membership in a social class or estate countenanced by and dependent on the state, as competing political theories claimed.⁴⁴

Republicans confronted two theoretical problems. First, the political health of a republic hinged on an articulation of individual sovereignty that was consonant with the general good. While the idea of popular sovereignty presumed that citizens had the right to act freely, the idea of a republic as the founders imagined it demanded that they had to act essentially alike, in the interest of the common good. But how were natural freedom and social order to be reconciled? Republicans concluded that order in a republican polity must arise from within,

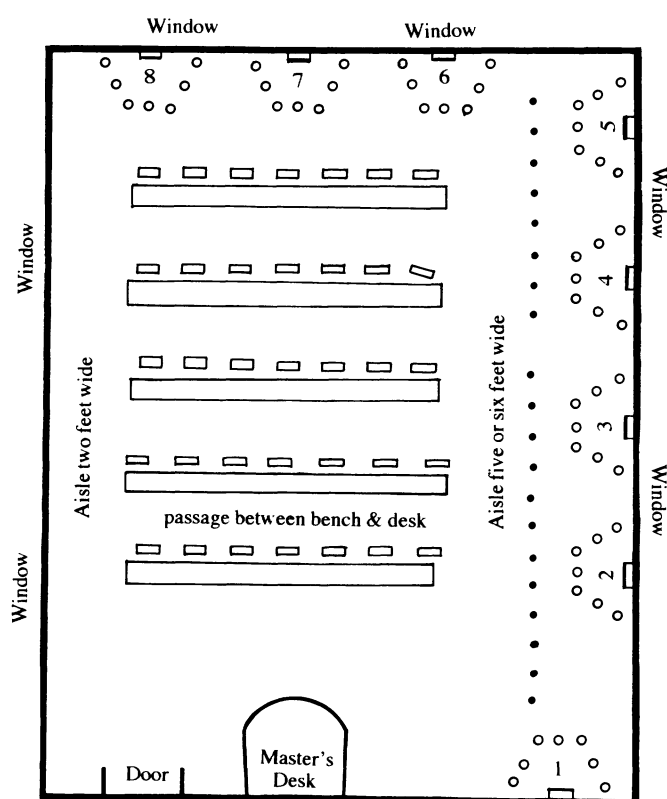


FIGURE 6: Suggested Lancasterian schoolroom, Boston, redrawn from William Russell, *Manual of Mutual Instruction* (Boston, 1826), 7



FIGURE 7: Model School, Philadelphia, 1818 (demolished); photograph, 1913, from Franklin Davenport Edmunds, *The Public School Buildings of the City of Philadelphia from 1745 to 1845* (Philadelphia, 1913), 52.

from self-discipline—virtue, as it was called—rather than being imposed from without: citizens must share common values. This raised the second dilemma: how could a republic of sovereign but unequal citizens develop common values? How was the general good to be defined and protected?

Early republicans applied modes of thought adapted from contemporary science, economics, natural philosophy, and religion to these questions about the nature of citizenship.⁴⁵ Science, economics, and theology all offered political thinkers models for understanding the mechanisms by which order might emerge from apparent chaos. For example, Newtonian natural philosophy—mathematics, physics, astronomy—faced an analogous problem to that of political republicanism: how was one to explain the coordinated behavior of apparently independent physical bodies? Isaac Newton hypothesized the existence of an invisible aether or aethers, “each very subtle and elastic, and ‘some secret principle of unsociableness’ and the reverse, whereby particles, both of aether and of grosser bodies, selectively flee and approach one another.”⁴⁶ Although

Newton later discarded this theory in favor a belief in direct divine intervention, it remained current among his followers, and it was available to curious Americans through itinerant lecturers and published popular introductions to his work.⁴⁷

The emergent liberal capitalism of the late eighteenth century incorporated this scientific narrative into its own. The new political economy postulated a universal human principle of “sociableness and unsociableness” that was founded in the instinct for self-preservation and that sought maximum personal gain from any economic transaction. The chaotic, self-seeking decisions of individuals generated predictable, orderly patterns of behavior, so that a common good emerged automatically from the sum of individual goods. The historian Joyce O. Appleby has demonstrated how important this image was for late eighteenth-century Americans. “The new economic relations,” she states, “were undirected but patterned, uncoerced but orderly, free but predictable. They began to resemble—in men’s minds at least—the operation of systems in the physical universe.”⁴⁸

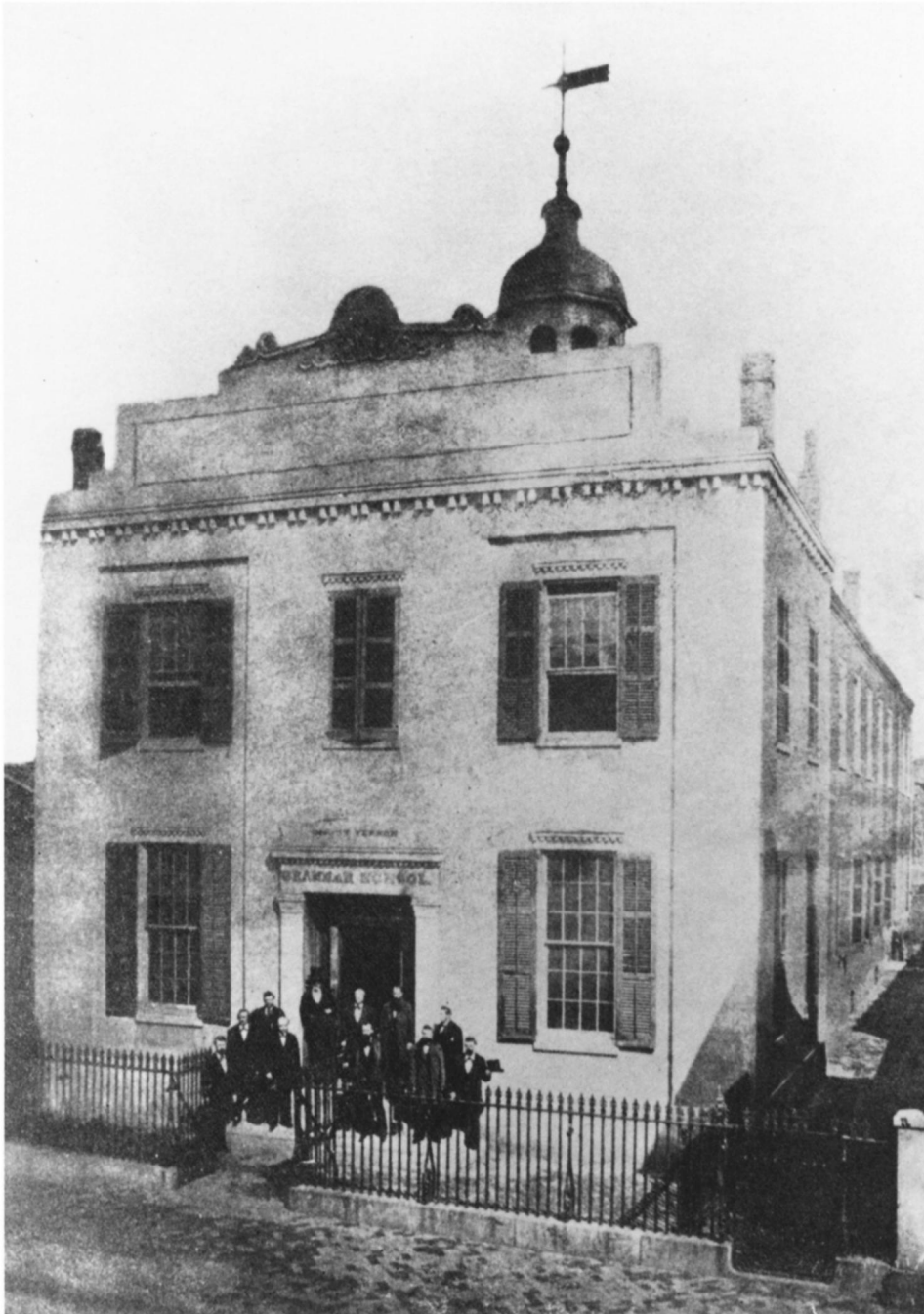


FIGURE 8: Catharine Street (Southwark) School, Philadelphia, 1820–1821 (demolished 1873); photograph, 1873, from Edmunds, *Public School Buildings*, 64

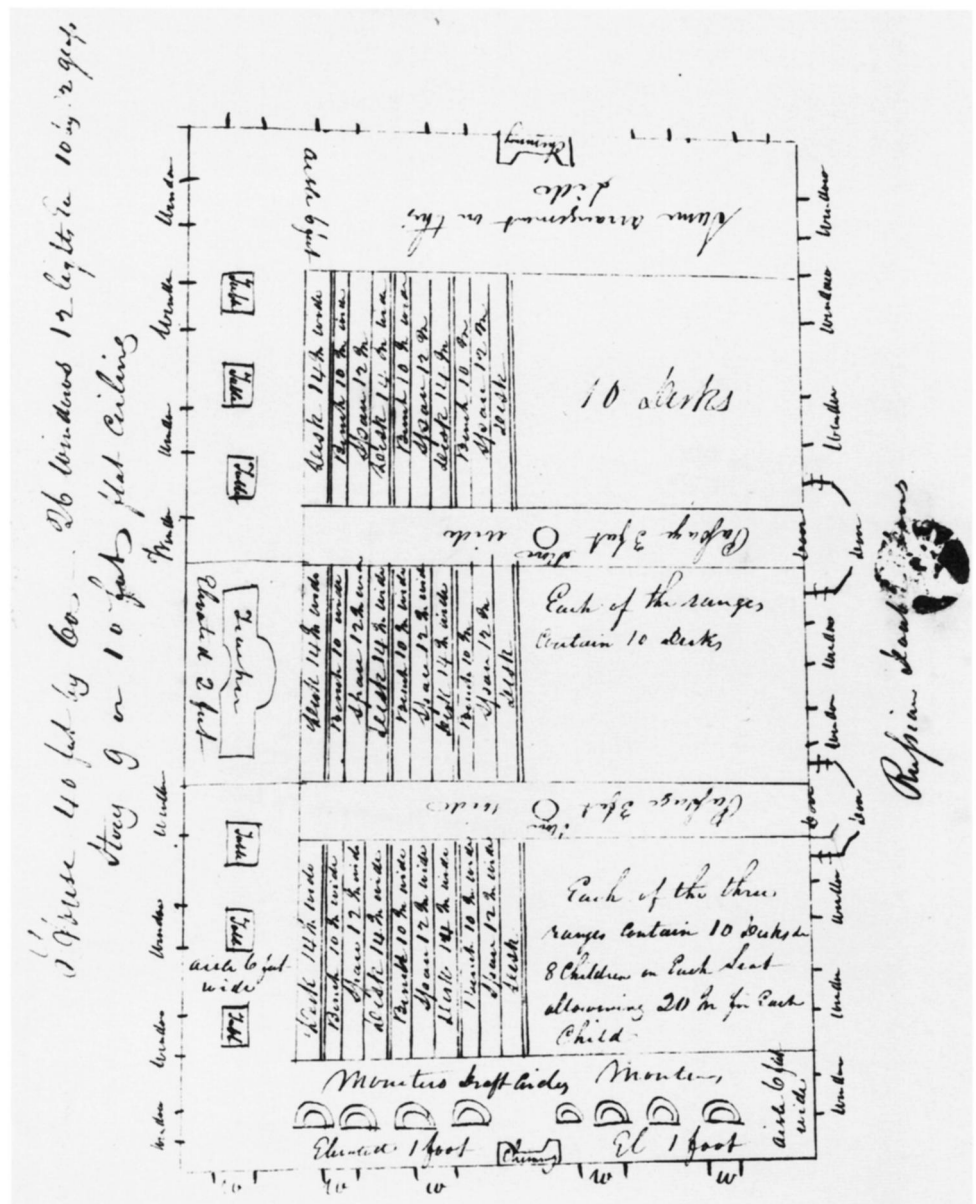
The importance of invisible, internalized regulation was familiar to many other Americans from more traditional channels, notably the Christian discourse of Providence and the soul. It was particularly important to Quakers such as those who imported Lancasterianism and who believed in an “inner light” that constituted direct human contact with divinity. For other Protestants, ideas of an essential human moral unity were reinforced by the eighteenth-century rise of evangelical religion, which preached a personal moral responsibility that required divine grace to succeed.⁴⁹

In place of the soul, secular and nonsectarian thinkers often postulated an innate moral faculty built into all humans at

creation, an invisible governor like those that controlled atoms or economies.⁵⁰ The difference from physics, economics, or even theology was that this moral gyroscope needed to be trained, like a muscle. This was the fundamental positive argument for mass education in a republican society, the complement of the repressive rhetoric of social control. As the Controllers of Philadelphia’s Lancasterian schools noted, societies without universal education “risque the evils which for want of moral and scholastic instruction might result to society.”⁵¹

In every case, some essence—a soul, an inner light, a moral faculty, or a vaguer “principle of sociableness and unsociableness”—linked discrete players and insured that their individual

FIGURE 9: J. M. Patton, plan of proposed Lancasterian school for Milton, Pennsylvania, 1 April 1828



actions would accord with others'. In short, parallel explanatory patterns (modes of thought) enabled republicans to cast the discontinuous realms of science, commerce, theology, and ethics into a single metaphorical system that could explain how sovereign individuals might be expected to act freely but in concert through the operation of an internalized self-regulation. These metaphors became what historian Jean Starobinski has called *emblems*, transcendent images that bridge the chasm between the concrete and the abstract, investing metaphor with tangibility and specificity.⁵²

If invisible coordination was a key metaphor, visible order was its complement. A sense of context, a view of the whole within which the self was located, maintained individual perspective and maximized social effectiveness in a republic. Republicans meant this quite literally: they imagined republican society spatially. It was *transparent*, or open to inspection and understanding by all comers; *classified*, or ordered by uniform catego-

ries based on essential similarities among disparate components; and *articulated*, or characterized by flexible and individually manipulable relationships.

A monetary reform proposal by John Dorsey, Philadelphia's keeper of weights and measures and a sometime architect, was so preposterous in its premises that it makes the emblematic process by which the republican spatial imagination fused the visible and the invisible readily evident. In 1818, the year the city's Lancasterian schools opened, Dorsey proposed to reduce the material and economic worlds to simple equivalences. Beginning from a mundane empirical observation—that a cubic foot of water at 60° F. weighed 1,000 ounces avoirdupois, a nice round figure—Dorsey proposed to “establish an uniform System—and by it to reconcile the Unit of Weight, the Unit of Lineal Measure—the Unit of measure of Capacity & the Money Unit of the UStates.” Seduced by the essentialism that lay behind the idea of invisible coordination and by the



FIGURE 10: Ringgold School, Philadelphia, 1832 (demolished). The cupola is characteristic of the republican fascination with bells as emblems of coordinated movement. The similarity to the Mifflin School (Figures 11, 12) suggests that Philadelphia had devised a standardized school plan by the mid-1820s. Compare, as well, the plan of New York's P.S. 17 (Figure 5).

materialism of early republican thinking, Dorsey wished to legislate a universal, fixed relationship among the mass, dimension, and monetary value of any substance.⁵³ One cubic inch of anything at all would, by fiat, weigh one ounce and be worth ten cents. In a stroke, the entire world was made transparent, articulated, and subjected to a universal classification system. Dorsey's proposal embodied the early republican spatial imagination at its most fanciful.

For educators and other social reformers, the moral faculty, variously described as an organ or physiological entity of some sort, was affected by the environment and consequently made it possible to influence human values somatically, mediating the moral and the physical, the invisible and the visible, republican citizenship and republican space. For this reason, visible spatial order was particularly important. The body's physical surround-

ings could be an important tool for creating republican citizens if social, political, and economic relationships could be ordered into neat, universal, one-to-one physical relationships as Dorsey wished to do for volume, mass, and value.

REPUBLICAN EDUCATION

What John Dorsey fantasized, Joseph Lancaster nearly realized. The key to Lancaster's pedagogy was a 1:1:1 articulation among a child, a unit of knowledge, and the material world. Lancaster conceived knowledge as a simple, layered system that might be reduced to its constituent parts for student consumption. For example, students of reading first learned to form the characters of the alphabet correctly, then moved on to one-letter words, followed by two-letter words, three-letter words, and so on up to the highest level, where they read "the Bible

and other select books.”⁵⁴ Students of arithmetic first learned to form numbers, progressed to addition, subtraction, multiplication, and division, and finally, in Philadelphia, at least, became acquainted with “Federal Money” and the principles of simple and compound interest.⁵⁵ Teachers—or rather, monitors—were not to expose students to any level of knowledge until they had mastered the ones below it.⁵⁶

Although monitorial schoolrooms were large, open buildings, they were complex, carefully considered spaces that ordered these relationships between pupils and knowledge emblematically. The key to the system “which must never be departed from,” Lancaster wrote, “is, A PLACE FOR EVERY THING, AND EVERY THING IN ITS PLACE.”⁵⁷

Among the most notorious of Lancaster’s spatial devices were the communal books that he promoted as cost-conscious innovations. “It will be remembered,” he wrote, “that the usual mode of teaching requires every boy to have a book: yet, each boy can only read or spell one lesson at a time in that book . . . and whilst the boy is learning a lesson on one part of the book, the other parts are at that time useless.” Consequently, Lancaster recommended breaking down books into large-print cards that could be used by several pupils at once when affixed to the walls or to stands.⁵⁸

In dismembering the book, Lancaster reduced an intangible body of knowledge—the English language as a sign system denoting abstract concepts—to discrete, effectively interchangeable parts. The parts were then dispersed among cards that



FIGURE 11: Mifflin School, Philadelphia, 1825; photograph 1912, from Edmunds, *Public School Buildings*, 68

were organized spatially so that their contents could be redistributed to individual pupils. Lancasterianism thus instilled republican citizenship—independent but coordinated action arising from shared values—by reversing it in the classroom. Each



FIGURE 12: Mifflin School in 1987



FIGURE 13: Lancaster School, Georgetown, D.C., 1811, in 1987. The cornerstone in the lower right corner of the facade reads "The Lancaster School 1811."

student was taught the same thing, but each learned it individually. Common knowledge was disassembled for consumption and reassembly by each student.

The monitorial classroom also served as a laboratory for examining some of the conceptual uncertainties of liberal capitalist republicanism. It showed that one could accept inequality and yet expect sovereign individuals to be governed by common values. The simple image of a school where facts were so many pennies, to be deposited in student piggy banks until nickels, dimes, and dollars of knowledge accumulated, figured the essential sameness, the invisible regulation of all republican citizens, while it also offered a way to compare them. As they recited their lessons, Lancasterian pupils were constantly evaluated and ranked among their peers. They stood at their monitorial drafts in the order of their proficiency. The best wore a medal labeled "First Boy" (or girl) that he or she retained until dethroned during the same or a subsequent lesson.⁵⁹ In this way, the invisible attributes of students — their

morsels of knowledge — were made visible and ranked. In addition, the ephemeral nature of achievement, the possibility of being dethroned at any time, gave schooling a dynamic quality that was reinforced by the careful patterns of movement by which students were to move from their desks to the drafts. It also appealed to the keen early-nineteenth-century sense of the volatility of fortune and social standing.

Lancasterianism was fuzzier than this account makes it appear. In the first place, only reading, and, to a lesser extent, arithmetic, could be neatly dismembered by Lancaster's method. History, geography, grammar, and (for girls) sewing and knitting were taught as well, but no mention was made of how they might be adapted to the system. Instead, American Lancasterians seized on the example of one-letter, two-letter, and three-letter words to explain their pedagogy. In the second place, the membership of the small classes and intra-class rankings changed from subject to subject. If students were to sit with their classes but were to be grouped into different classes for every subject, the neat patterns of movement in the monitorial classroom could not work. Lancaster's patterned movements show how deeply his system was the product of a spatial imagination that overlooked the practicalities of classroom management and circulation and the heterogeneous character of human knowledge.

Yet this materialist vision of education sparked the republican spatial imagination. Philadelphia's school board created a specific functionary, the General Monitor of Order, to implement the "place for everything" rule.⁶⁰ Boston's school trustees repeated Lancaster's dictum that classes be regrouped for every subject, but they also accepted the customary mapping of classes onto rows of benches, a practice that again precluded the fluidity Lancaster envisioned: "Each row of desks, (and there are eight or ten,) is called a class; and each of these classes writes a different word, because each studies a different spelling lesson."⁶¹

Boston Lancasterian William Russell envisioned an all-encompassing choreography by which every movement was closely regulated. Students moved about at the monitors' commands of "'Ready!,' then 'Rise!' 'Walk!'" During writing lessons, the monitors ordered "'Take slates.' Each child lays his slate before him — 'Clean slates.' Each child rubs until the bell sounds for all to stop together, and put their hands behind at the same instant" [Figure 14]. During recitations, all started on signal, and all fell silent on signal "even if a word is half pronounced."⁶² In Philadelphia, students moved at the sound of a large bell along a wire-marked path to their drafts, where they lined up on their drafts facing away from the wall. The signal of a small bell turned them around, another ended the lesson, and a final signal from the large bell sent them back to their benches.⁶³

These images, in countless variations, pervade early nine-

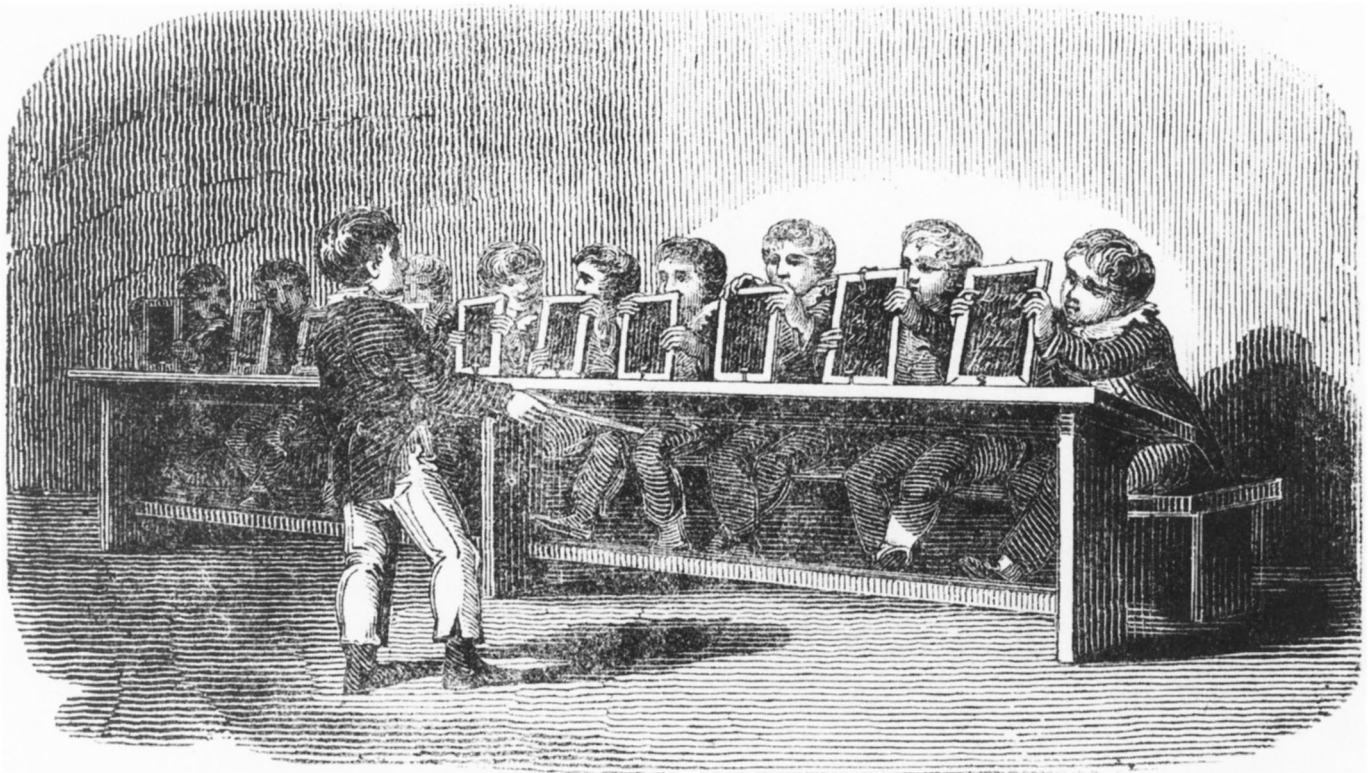


FIGURE 14: Royal Free School, Borough Road, London, from Lancaster, *British System*, frontispiece. Choreographed movement: students show their monitor what they have written on their slates ("Long Live the King").

teenth-century American social literature and constitute a critical element of the republican spatial imagination. Moral self-regulation translated directly into a choreographed landscape.⁶⁴ The physiological basis of morality implied that the

dance of life could embody and instill moral values. In the institutions that shaped or reshaped republicans, coordinated movement formed character. Training to be citizens, Lancasterian students spoke and moved as one. Having failed at

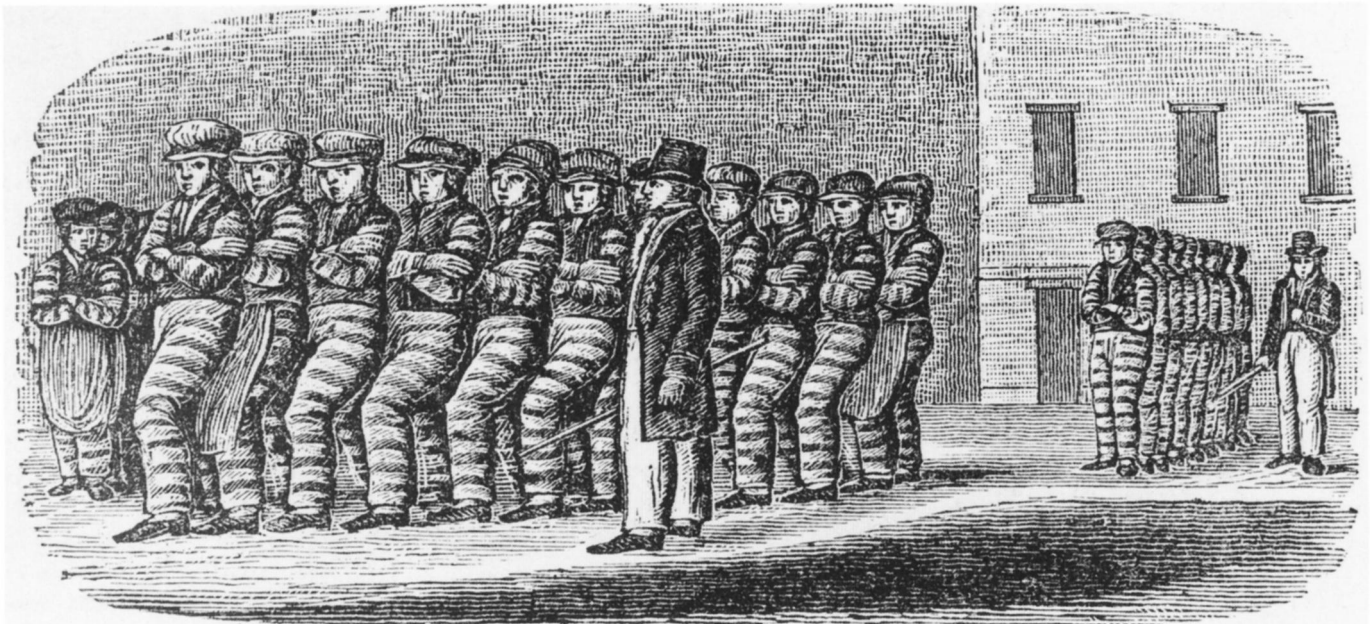


FIGURE 15: State Penitentiary, Auburn, New York, from John W. Barber and Henry Howe, *Historical Collections of the State of New York* (New York, 1842), 78. Republican choreography in its therapeutic aspect: prisoners march in lockstep.

citizenship, adult convicts were reeducated through coordinated silence and kinetic techniques such as the lockstep, a close-order march in which prisoners moved under their own power but so closely together that they had to mimic everyone else's movements or fall down [Figure 15]. The Lancasterian drill and the prisoners' lockstep were highly aestheticized, titillating glimpses of what republican society *might* be. The dream's fulfillment could be glimpsed in the erect postures and controlled movement of genteel citizens in the street and in the bell-coordinated discipline that civilians such as factory workers and even hotel guests shared with schoolchildren, convicts, and inmates of all sorts of asylums.⁶⁵

Indeed, the sheer numbers of public and private, commercial and ceremonial, penal and therapeutic spaces, organized along similar lines and intended to promote similar kinds of behavior, dramatize the sweep of the republican spatial imagination. Houses, offices, shopping arcades, public markets, hotels, cemeteries, prisons, hospitals, and asylums were among the many building and spatial types created or reshaped by the republican spatial imagination.⁶⁶ Of them all, the penitentiary, the school, and the urban grid were singled out as the landmarks that triangulated the limits of republican space.

Prisoners, schoolchildren, and ordinary citizens pantomimed individual sovereignty articulated with the common good on a series of carefully devised playing fields. Self-directed adult citizens exercised their circumscribed freedom in the civic grid, which came to be interpreted in the early nineteenth century as a dynamic but neutral framework that specified no uses and emphasized no sites in advance, a landscape that could accommodate and articulate the maximum number of disparate uses into a transparent, all-encompassing order. The grid gently directed the flow of republican life, like the stage markings in a theater.⁶⁷ When citizens erred, the grid's boundaries hardened into the walls of the cell, which constrained, rather than merely guided, action. In the open classrooms of the Lancasterian school, the lines of the grid were visible in the rows of benches and the wire-marked routes that marked out patterns of movement in and out, to and from the drafts. While these boundaries were more restrictive than those of the civilian grid, they were softer than those of the penitentiary, for school officials had faith that education would mold pupils into citizens who carried their boundaries within themselves. In the monitorial school, the articulation that Americans relied on grids and cells to enforce in the adult world was wired into the student: the student became his or her own cell. In short, more than economy, more than its illusory efficiency, more than social control in the simplistic sense, Joseph Lancaster's pedagogy suited a specific, highly spatialized political vision. It offered a tangible model of the type of society that the republican elite craved.

Unlike urbanites, hotel guests, cemetery visitors, and even

convicts, Lancasterian pupils left no known responses to their experience. Yet low enrollments, truancy, and general youthful and parental indifference, all prompted by the exigencies of earning a living and widespread, if imperfectly articulated, lower-class antielitism, certainly count as a response. So does the dismantling of Lancasterian education in the middle of the nineteenth century. It failed, in part, because the theoretical elegance of the system overlooked the messiness of human learning. It failed because students learned little in monitorial classrooms, for monitorial education's proponents misconceived the nature of language and intellect. Most of all, it failed for the same reason that it initially succeeded: because it was a product of the spatial imagination, a constellation of metaphors, a fervently utopian vision of republican society, disguised as a pedagogy. The focus on system and order obscured the needs of individual students.

In response, parents and students opted out. Authorities in Philadelphia and New York were never able to recruit or retain enough competent monitors from the student body. Philadelphians resorted to roving "Assistant Tutors" to compensate, while New York officials were thwarted by the courts in their attempt to declare monitors indentured servants bound to the school board until their twenty-first birthdays.⁶⁸ In Baltimore, the monitors' parents angrily withdrew them from the schools, fearing that their own educations were being sacrificed to their monitorial duties.⁶⁹

One by one, urban school boards abandoned Lancasterian instruction: Philadelphia surrendered in 1831, Baltimore in 1839, and the District of Columbia in 1844. In 1853, New York, the first to import Joseph Lancaster's method, became the last major city to give it up.⁷⁰

Notes

¹ This paper was first presented at a symposium, "Defining the Greater Good: Architecture and Institutions," at the Department of Architecture, University of British Columbia, in 1995. I am grateful to the organizers of the symposium, David Vanderburgh and Deborah Weiner, and to the members of the Berkeley Americanists' Reading Group (Richard Hutson, Margaretta M. Lovell, Donald McQuade, Kathleen Moran, and Bryan J. Wolf) and the anonymous *JSAH* reviewer for their valuable comments.

Basic expositions of Lancasterianism include Lancaster's own *The British System of Education: Being a Complete Epitome of the Improvements and Inventions Practised at the Royal Free Schools, Borough-Road, Southwark* (London, 1810), as well as Carl F. Kaestle, ed., *Joseph Lancaster and the Monitorial School Movement: A Documentary History* (New York, 1973); Carl F. Kaestle, *Pillars of the Republic: Common Schools and American Society, 1780–1860* (New York, 1983), 40–44; and Thomas A. Markus, *Buildings and Power: Freedom and Control in the Origin of Modern Building Types* (New York, 1993), 56–66.

² Samuel L. Knapp, *The Life of Thomas Eddy; Comprising an Extensive Correspondence with Many of the Most Distinguished Philosophers and Philanthropists of This and Other Countries* (New York, 1834), 42, 54, 164–165, 206; John Franklin Reigart, *The Lancasterian System of Instruction in the Schools of New York City* (New York, 1916), 1–2.

³ Benjamin Shaw, London, to Controllers of the Public Schools, Philadelphia, 16 April 1818, Roberts Vaux Papers [VP], Historical Society of Pennsylvania; Benjamin Shaw, London, to Roberts Vaux, Philadelphia, 27 November 1818,

VP; "System of General Education," *Hazard's Register of Pennsylvania* 13 (1834): 147.

⁴ Charles W. Thomson, *Diary Desultorum, or a Journal of Passing Events* [Diary, 1818–1843], MS., New-York Historical Society, 26 April 1819; also Samuel Emlen, Burlington, N.J., to Vaux, 15 October 1818, VP; Peter E. Kurtze, "'A School House Well Arranged': Baltimore Public Schools on the Lancasterian Plan, 1829–1839," in *Gender, Class, and Shelter: Perspectives in Vernacular Architecture, V*, ed. Elizabeth Collins Cromley and Carter L. Hudgins (Knoxville, 1995), 70.

⁵ Wm Augustus Muhlenberg, Lancaster, Pa., to Vaux, 11 February 1823, 14 January 1822, 25 June 1822; J. M. Patton, Milton, Pa., to Vaux, 1 April 1828; Coudy Raquet, Harrisburg, Pa., to Vaux, 30 March 1821; Coudy Raquet, Cincinnati, to Vaux, 15 June 1821, all in VP.

⁶ Timothy Flint, *Recollections of the Last Ten Years, Passed in Occasional Residences and Journeyings in the Valley of the Mississippi, from Pittsburg and the Missouri to the Gulf of Mexico, and from Florida to the Spanish Frontier* (Boston, 1826), 185; "System of General Education," 189.

⁷ *First Biennial Report of the Trustees and Instructor of the Monitorial School, Boston* (Boston, 1826); Kaestle, *Pillars*, 42; John Claggett Proctor, "Joseph Lancaster and the Lancasterian Schools in the District of Columbia, with Incidental School Notes," *Records of the Columbia Historical Society of Washington, D.C.* 25 (1923): 1–35; "System of General Education," 97–103, 122–125, 132–135, 146–147, 189, 235–238, 331–333, 391–393, 410–412; Kurtze, "'School House,'" 70.

⁸ Paul Boyer, *Urban Masses and Moral Order in America, 1820–1920* (Cambridge, Mass., 1978), 49–50.

⁹ This essay focuses less on understanding Lancaster's entire system, and still less on sorting out the arcana of what he did and did not appropriate from other people (which inspired acrimonious pamphlet wars among Lancaster and his competitors), than on examining the aspects of his programs that appealed to Americans.

¹⁰ Gary B. Nash and Billy G. Smith, "The Population of Eighteenth-Century Philadelphia," *Pennsylvania Magazine of History and Biography* 99 (1975): 362–368.

¹¹ Thomas M. Doerflinger, *A Vigorous Spirit of Enterprise: Merchants and Economic Development in Revolutionary Philadelphia* (Chapel Hill, 1986), 36, 38–39, 68, 157–158, 242–245, 284–334, 342–343; Billy G. Smith, *The "Lower Sort": Philadelphia's Laboring People, 1750–1800* (Ithaca, 1990), pp. 63, 66, 68, 84–91, 124–125; Gary B. Nash, *The Urban Crucible: Social Change, Political Consciousness, and the Origins of the American Revolution* (Cambridge, Mass., 1979), 250, 252–254, 257–259; Sharon V. Salinger, "Artisans, Journeymen, and the Transformation of Labor in Late Eighteenth-Century Philadelphia," *William and Mary Quarterly* 3d ser., 40 (1983): 69–74.

¹² Knapp, *Life of Thomas Eddy*, 42–54 and passim.

¹³ On the novelty of the idea of worthy and unworthy poor in the early nineteenth century, see Michael B. Katz, *In the Shadow of the Poorhouse: A Social History of Welfare in America* (New York, 1986), 9–10, 12, 18, 24–25.

¹⁴ J. L. Rhees, *A Pocket Manual of the Lancasterian System of Education, in Its Most Improved State: As Practised in the Model School, First School District, Pennsylvania* (Philadelphia, 1827), 3.

¹⁵ Lancaster, *British System*, 2.

¹⁶ Kaestle, *Pillars*, 87.

¹⁷ Reigart, *Lancasterian System*, 24–29.

¹⁸ Kurtze, "'School House,'" 73.

¹⁹ William Russell, *Manual of Mutual Instruction; Consisting of Mr. Fowle's Directions for Introducing in Common Schools the Improved System Adopted in the Monitorial School, Boston* (Boston, 1826), 6–7.

²⁰ Rhees, *Pocket Manual*, 4, 8.

²¹ Patton to Vaux.

²² Philadelphia's Lancasterian schools were cataloged, and many illustrated, in Franklin Davenport Edmunds, *The Public School Buildings of the City of Philadelphia from 1745 to 1845* (Philadelphia, 1913). While Edmunds provided valuable information about dates, costs, and locations, the architectural data were confined to photographs of extant buildings and site plans. He recorded building size as cubic volume and internal arrangements as they were at the time of his writing, after the big Lancasterian schoolrooms had been subdivided.

²³ *A Vindication of Mr. Lancaster's System of Education, from the Aspersions of Professor March, the Quarterly, British, and Anti-Jacobin Reviews, &c. &c.* by a Member of the Royal Institution (London, 1812), 21; Knapp, *Life of Thomas Eddy*, 209.

²⁴ Kaestle, ed., *Joseph Lancaster*, 11–14; Markus, *Buildings and Power*, 56.

²⁵ Shaw to Controllers of the Public Schools.

²⁶ Kurtze, "'School House,'" 73.

²⁷ Rhees, *Pocket Manual*, 4, 8.

²⁸ "Report of the Controllers of Public Schools," *Hazard's Register of Pennsylvania* 13 (1834): 174. New York school officials claimed that some of their teachers instructed 300 infants or 400 older pupils at one time, while a correspondent told Vaux that Cincinnati's school held 250 children in a class. The Georgetown schoolhouse was reported to accommodate between 350 and 500 pupils. (Edward S. Abdy, *Journal of a Residence and Tour in the United States of North America, from April, 1833, to October 1834*, 3 vols. [London, 1835], 1: 6; Reigart, *Lancasterian System*, 31; Coudy Raquet, Cincinnati, to Roberts Vaux, 15 June 1821, VP; Proctor, "Joseph Lancaster," 6.)

²⁹ Lancasterian, Letter to the Editor, *American Sentinel*, 23 February 1822, clipping sent to Roberts Vaux for his comment, VP.

³⁰ Russell, *Manual*, 32.

³¹ Lancaster, *British System*, 2.

³² Joseph Lancaster, Baltimore, to Roberts Vaux, Philadelphia, 30 June 1821, VP.

³³ John Ely, Adelphi School, to Roberts Vaux, 4 June 1817, VP. The Adelphi School was a private, Quaker-supported institution for the education of poor African American boys. (*Philadelphia in 1824* [Philadelphia, 1824], 131.)

³⁴ *Fourth Annual Report of the Controllers of the Public Schools of the First School District of the State of Pennsylvania. With Their Accounts* (Philadelphia, 1822), 4; *Eighth Annual Report of the Controllers of the Public Schools of the First School District of the State of Pennsylvania: With Their Accounts* (Philadelphia, 1826), 6–7.

³⁵ *To the Senate and House of Representatives of the Commonwealth of Pennsylvania: the Memorial of the Subscribers, Citizens of the City and Liberties of Philadelphia*, 29 November 1829 (Philadelphia, 1830). The primal innocence of young children was a central tenet of Pestalozzian theory. (Kaestle, *Pillars*, 87.) On infant schools, see Kaestle, *Pillars*, 47–51.

³⁶ James Ronaldson to Roberts Vaux, 6 April 1829, VP. By begging checks, Ronaldson referred to poor children's practice of soliciting ticket stubs from theater patrons who left performances early. These allowed the children to enter the theater, which was widely believed to be an immoral place.

³⁷ Vaux, for example, was a prime mover in the Eastern State Penitentiary, the Friends' Insane Asylum, and the House of Refuge as well as the public schools, and a member of the board or benefactor of many similar institutions.

³⁸ Russell, *Manual of Mutual Instruction*, 105–106. See the militaristic description of the monitorial system, possibly written by Lancaster himself, in *Vindication of Mr. Lancaster's System*, 32; also Kaestle, ed., *Joseph Lancaster*, 16–17.

³⁹ Rhees, *Pocket Manual*, 21–23.

⁴⁰ Elizabeth Drinker, *The Diary of Elizabeth Drinker*, ed. Elaine Forman Crane, 3 vols. (Boston, 1991), 2: 1290 (11 April 1800).

⁴¹ Lancaster, *British System*, 2.

⁴² The most important work in this vein, although it does not treat schools, is David J. Rothman, *The Discovery of the Asylum: Social Order and Disorder in the New Republic* (Boston, 1971).

⁴³ Hubert L. Dreyfus and Paul Rabinow, *Michel Foucault: Beyond Structuralism and Hermeneutics* (2d ed.; Chicago, 1983), 126–167, 178–195; J. G. Merquior, *Foucault* (Berkeley, 1985), 85–118. The key text for my argument is Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York, 1977). Military discipline is discussed on pp. 151–156, while *écoles mutuelles*, the French version of Lancasterian education, are mentioned in passing on p. 150.

⁴⁴ Gordon S. Wood, *The Creation of the American Republic, 1776–1787* (Chapel Hill, 1968); Joyce O. Appleby, *Liberalism and Republicanism in the Historical Imagination* (Cambridge, Mass., 1992), 292–293, 297(quote)–298, 305–306; Robert E. Shalhope, "Toward a Republican Synthesis: The Emergence of an Understanding of Republicanism in American Historiography," *William and Mary Quarterly* 3d ser., 29 (1972): 49–80; Robert E. Shalhope, "Republicanism and Early American Historiography," *William and Mary Quarterly* 3d ser., 39 (1982): 334–356; Daniel T. Rodgers, "Republicanism: The Career of a Concept," *Journal of American History* 79 (1992): 11–38.

⁴⁵ By modes of thought I mean habits of mind and patterns of explanation common to all the disciplines that were adopted as metaphors for explaining the way individual sovereignty and the common good might be articulated in republican citizenship.

⁴⁶ Brooke Hindle, *The Pursuit of Science in Revolutionary America 1735–1789* (Chapel Hill, 1956), 346; J. L. Heilbron, *Elements of Early Modern Physics* (Berkeley, 1982), 44 (quote).

⁴⁷ Heilbron, *Elements*, 44–45, 61–62; I. Bernard Cohen, *Benjamin Franklin's Science* (Cambridge, Mass., 1990), 40–60; John C. Greene, *American Science in the Age of Jefferson* (Ames, Ia., 1984), 20. The discussion of essentialism in this and the following paragraphs is based on Dell Upton, "Another City: The Urban Cultural Landscape in the Early Republic," in *Everyday Life in the Early Republic*, ed. Catherine E. Hutchins (Winterthur, Del., 1994), 65–67.

⁴⁸ Appleby, *Liberalism and Republicanism*, 305–307; Joyce O. Appleby, *Economic Thought and Ideology in Seventeenth-Century England* (Princeton, 1978); Joyce O. Appleby, *Capitalism and a New Social Order: The Republican Vision of the 1790s* (New York, 1984), 33 (quote).

⁴⁹ Rhys Isaac, *The Transformation of Virginia, 1740–1790* (Chapel Hill, 1982), 263–264, 309–311.

⁵⁰ Daniel J. Boorstin, *The Lost World of Thomas Jefferson* (Boston, 1948), 111–116; Appleby, *Capitalism*, 19, 25, 78.

⁵¹ *First Annual Report of the Controllers of the Public Schools of the First School District of Pennsylvania; with Their Accounts* (Philadelphia, 1819), 4.

⁵² Jean Starobinski, *1789: The Emblems of Reason*, trans. Barbara Bray (Cambridge, Mass., 1988).

⁵³ John Dorsey to William Jones, President of the Second Bank of the United States, n.d. [c. 1818], William Jones Papers, Uselma Clark Smith Collection, Historical Society of Pennsylvania.

⁵⁴ Lancaster, *British System*, 3–4; Rhees, *Pocket Manual*, 12. For the use of this method in other American schools, see Reigart, *Lancasterian System*, 41–42; *First Biennial Report of . . . the Monitorial School* (see n. 7), 8–9.

⁵⁵ Rhees, *Pocket Manual*, 15–16.

⁵⁶ Lancaster, *British System*, 7.

⁵⁷ Lancaster, *British System*, 3.

⁵⁸ Lancaster, *British System*, 12–13. For American comments: *First Biennial Report of . . . the Monitorial School*, 29–30; Reigart, *Lancasterian System*, 44. William Russell doubted the economic need for communal books in the United States, although he recognized their value in creating a uniform spatial system of knowledge. Philadelphia's schools did use them. (Russell, *Manual*, 10; Rhees, *Pocket Manual*, 10, 14.)

⁵⁹ Lancaster, *British System*, 7–8, 54; Rhees, *Pocket Manual*, 14–15.

⁶⁰ Rhees, *Pocket Manual*, 22.

⁶¹ *First Biennial Report of . . . the Monitorial School*, 9.

⁶² Russell, *Manual*, 17–19.

⁶³ Rhees, *Pocket Manual*, 9, 26.

⁶⁴ On choreographic images of social life, see Dell Upton, *Holy Things and Profane: Anglican Parish Churches in Colonial Virginia* (New York, 1986), part 3.

⁶⁵ John Kasson, *Rudeness and Civility: Manners in Nineteenth-Century Urban America* (New York, 1990), 7, 30, 93–94, 99; Richard L. Bushman, *The Refinement of America: Persons, Houses, Cities* (New York, 1992), 63–69; Kenneth L. Ames, *Death in the Dining Room and Other Tales of Victorian Culture* (Philadelphia, 1992), 186–187, 206–213; Rhees, *Pocket Manual*, 11, 26.

⁶⁶ For brief discussions of some of these other spatial types, see Upton, "Another City," 61–117.

⁶⁷ For more extended discussion of the grid's meaning in the early republic, see Upton, "Another City," 67–71; and Dell Upton, "The City as Material Culture," in *The Art and Mystery of Historical Archaeology: Essays in Honor of James Deetz*, ed. Anne E. Yentsch and Mary C. Beaudry (Boca Raton, Fla., 1992), 53–56.

⁶⁸ Rhees, *Pocket Manual*, 4–5; Reigart, *Lancasterian System*, 97.

⁶⁹ Kurtze, "'School House,'" 75.

⁷⁰ Sam Bass Warner, Jr., *The Private City: Philadelphia in Three Periods of Its Growth* (2d ed.; Philadelphia, 1987), 116; Kurtze, "'School House,'" 75; Proctor, "Joseph Lancaster," 13; Reigart, *Lancasterian System*, 1.

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Figure 9. Vaux Papers, Historical Society of Pennsylvania

Figures 12, 13. Author