Educational Architecture on a Human Scale

School Design
Flexibility Matters

Elliott Washor, Dennis Littky and their colleagues at Providence, Rhode Island's Metropolitan Regional Career and Technical Center (known as the Met) explicitly built autonomy and control into the school's design. Washor, Co-Principal of The Met and Co-Director of The Big Picture Company, stresses the importance of "flexible walls that let you change the space as you need to change it. This puts control in the hands of the educator as opposed to the district. You have to build flexibility into any new building; you're building schools that you know will change. It takes years to understand what to do with the space that you're occupying." Principal Ted Hall discusses an addition in the works at Souhegan High School in Amherst, New Hampshire to expand the nine-year old school building that's already overflowing with students. "Flexibility is the most important thing we are including in the addition. We try not to make things specific."

Daniel Cecil, Noble High School's Project Architect, discusses how teachers planned to repurpose space even before the school opened its doors. "Every community has a pretty large storage space, where they can put furniture as they are moving things around and where they can put student projects. The teachers are going to use them as yet another small group space, in this case a place where they can do tutoring or meet with five or six kids within this small suite of rooms."

Older schools don’t yield easily to transformation, but it’s possible to rework existing space to create intimate settings. Principal Debbie Meier’s Mission Hill Elementary School operates in a century-old building in Boston. Cutting and renovating cost too much, but Meier found ways to use Mission Hill’s existing structure, particularly its long, 14-foot wide hallway. "The corridor itself is shared living space. If I step out of the office at the center of the school, there are two little communities at each end. They have integrity—those teachers keep those kids until eighth grade. The space in the middle of the building is used for shared notices and is a central communications place. The corridor becomes the place where people chat with each other, where we highlight current curriculum. When the kids study Egypt, the corridor becomes the Nile river. When they’re working on railroads, we have freight tracks down the center. The corridor becomes the unifier of curriculum and ideas. Because of the wide corridors, it’s easier to create the sense that teachers and kids collaborate across classrooms. We use this feature to enhance something that we had in mind."
Herb Childress
Homes to Powerful Learning & Delight

Architecture has many purposes. It keeps the rain off our heads, keeps our belongings secure, and brings pride and beauty to our lives. But architecture—and school buildings in particular—can do far more than that. Every building ever made carries within it the goals of its creators. Just as we can learn what was important about ancient societies by examining their physical artifacts, we can see what we ourselves value by looking at the buildings we construct. In America, school facilities usually promote economies of scale, separation of kids and adults, passivity of learning, and standardization of practice and outcome. We don’t seek these results maliciously but our decisions—from the six-period day to row-and-column individual classrooms to large consolidated high schools—lead to these results.

Architecture almost never causes behaviors directly, but it certainly makes some actions easier and others harder. If a school building clusters its administrative staff away from teachers and students, it helps administrators work together more efficiently, while at the same time increasing the isolation of those decision-makers from the teachers and students they serve. If a school locates itself in the heart of a town, it allows easier access for students to the real day-to-day life of their community. If a school uses one-piece desk/chair combinations, it reinforces learning as an individual act and hinders collaboration and group understanding.

If we actively want to pursue different goals, then architecture can help us do that as well. We can use intersections in corridors to enhance social contact. We can arrange tables and chairs in ways that help learning become a joyful, unselfish act instead of a solo performance. We can locate our schools in the centers of the neighborhoods they serve, to promote parental contact and student service work. We can use local services like theaters and athletic programs to reduce the isolation of school from community and increase the numbers of adults in kids’ lives. We can make the principal’s office the heart of the school community rather than a punitive outpost for the disobedient. Schools can be helpful, satisfying, and equitable places. Architecture alone will not make them so, but we can use buildings to assist us in creating schools that are homes to powerful learning and delight.

Herb Childress, Director of Research at the Bay Area Coalition of Equitable Schools, wrote Landscapes of Betrayal, Landscapes of Joy, Cortisville in the Lives of Giants, Teenagers (State University of New York Press), a penetrating look at the use and meaning of school, home and town in teenagers’ lives.
Noble's architect Daniel Cecil describes other ways to incorporate flexibility: "We created an art wall, which is located next to the entry to every community. This is a six foot by eight foot piece of painted plywood, and a team building exercise at the beginning of every semester will be that the students and teachers get together and decide how they are going to decorate and customize that wall. In fact, they can do it every week if they want. We made it out of plywood so that they can paint a mural on it, they can nail things into it, they can put a sculpture on it, they can pin their photos on it, or anything else that they want to do to make it special to them. It is right there at the entrance signifying that it is a special space for them." Memorial principal Pam Nash recommends open communication with unionized maintenance staff. "In our planning sessions, students wanted to paint Neighborhood walls. You have to make sure that you have working relation with unions so kids can do those things. It's an ongoing negotiation process. Their initial reaction is no, we paint, we don't want our job taken away. But as they began to understand what we're trying to do, they said 'Sure, they can paint a wall.'"

**The Power of Malleable Environments**

In his book *Landscapes of Betrayal, Landscapes of Joy: Curtisville in the Lives of its Teenagers*, Herb Childress, Director of Research and Communications at the Bay Area Coalition of Equitable Schools, examines how place affects teenagers' sense of belonging and attachment in their school and community. He learned tremendously from observing where students chose to hang out.
Principles that Guide School Design

What guidelines do schools follow when designing new space to support learning that reflects the CES Common Principles? Noble High School in North Berwick, Maine and the Julia Richman Educational Complex, six autonomous schools under one roof in New York City, provide examples of the operating principles that guided their planning and decision-making.

JULIA RICHMAN EDUCATIONAL COMPLEX

- The single structure should be reconfigured into a complex that would house multiple schools.
- Each school should be regarded as an autonomous unit, having control over curriculum, educational philosophy, staffing, schedule and organization.
- No single school in the complex should exceed 300 students in order to promote both quality education within schools and a sense of community among schools.
- Each school should be allocated a secure and autonomous space.
- A governance structure should be created within the complex that would foster and support democratic decision-making, school autonomy, and a building-wide community.


NOBLE HIGH SCHOOL

- The school should abolish anonymity by creating schools within schools.
- The spaces should reflect the concept of student as worker, teacher as coach.
- The curriculum should be collaboratively designed, interdisciplinary and project-based.
- The school should be a community center that brings community members into the education of its students.
- The school should be flexible in design, material and function.

SOURCE: "From Scratch: Designing and Building an Essential School" presented at CES's 1997 Fall Forum by John D'Antieri (Freeport High School, former Noble High School Future Planning Committee Co-Chair) and Daniel W. Cecil, AIA (Project Architect, Harriman Associates, Auburn Maine)
in school. "Kids flocked to rooms where they had control over their spatial organization, where they could crowd together at the end of a lab table or sit on top of one, where they could sit at the edge of the stage and let their legs drape down." Comfortable seating, carpets, quiet corners and private niches are hallmarks of rooms where students get down to work. Debbie Meier says, "You need big and different sized rooms. Crowding people causes anxiety, and that tension and anxiety is contagious. Larger spaces create escapes: at Mission Hill, we use our halls so that kids can escape."

Coalition schools are recognizing the need for kids to reshape their environments and in response are banishing desk-and-chair units and bringing in smaller, easily configurable tables and chairs. At Caledonia High School, a CES school in Caledonia, Michigan, principal Ron Moag notes, "High school students are more like adult learners now. They come to us with more exposure to different environments and work experience. If nothing else, we can use furniture to create an environment that supports them. In the new school, I'd love to go with tables and chairs that can move around. We need to treat each other with respect and accountability. Otherwise, we're juvenilizing students who need more to work effectively."

Schools are also capitalizing on the power of informal hang-out spaces. At the new Noble High School, Daniel Cecil created accommodating hallways: "We thickened corridors and we made odd-shaped nooks and crannies, which is a simple thing to do, and very inexpensive, but it will create a lot of memorable spaces that we think the kids will like." Souhegan clustered lockers at the ends of carpeted hallways, drawing students into the building and hushing the omnipresent metal-slamming mid-corridor school noise.

Pamela Nash plans for Memorial's Neighborhoods personalization effect to wash over the rest of the school. She points out, "What can be done with existing space is so important. At this point, when you walk into our building into the foyer, it's filled with lockers. We're planning to take banks of lockers out and our woodworking classes will build benches and planters to change the way people feel when they walk into the school."
CROSS-GENERATIONAL SPACE

At Urban Academy, Ann Cook paid close attention to the school office. "We made the space support what we want to do. Our office is the old Julia Richman office. It used to have a long counter separating staff and kids. Now, all the teachers have desks in this room. There's a Xerox machine and phones that the kids use. Lockers are in here and it's a traffic point to the student lounge. It's not about distance but about access, access to adults. Since Urban's adults are all in this room, we have few turf issues. Kids and teachers relax on couches and beanbags in the hall. We want adults available to kids all the time. We've tried to make it clear that this an open place where kids have access to adults." Debbie Meier describes a similar environment at Mission Hill: "In our shared cross generational office, kids feel some ownership. The office is not an office; it's central casting, where everyone can find out what everyone else is doing."
COMMUNICATING ABOUT DESIGN

Caledonia’s Ron Moag has spent the past year immersed in the planning process of building a new school. “We started dreaming in an all-faculty in-service day. Then each department or school team chose a representative to sit on the high school core design team. The team included community people and middle and high school students. After our bond was passed, they provided input during a two-day planning process. Architects joined the meetings and put the vision on paper for the group’s review, and so it went for ten months. We also had two community forums open to all.” Moag describes visits from Caledonia teams to other schools as crucial to developing a building plan that would support the school’s current goals and allow for the possibility of “change ten to twenty years down the road without having to do a lot of physical structural change.”

While a well coordinated, inclusive process needs to be in place to include multiple voices, miscommunications can occur. Elliot Washor observes, “Most of the time, people don’t talk the same language. Educators don’t understand how to build and districts, school boards and architects don’t understand programmatic design. Flexibility and personalization mean different things. Flexible to me means being able to control the rooms I teach in, but flexible from a building planning point of view means that a building is equipped to grow from 1,200 to 1,600 students. Language and images can cause confusion. You need to put everyone in the same room and keep them there long enough so they understand that you’re designing a space in which form follows function. Almost all the time you can get beyond those things, but you have to be aggressive.”

In the mid-1990s, Anzar High School in San Juan Bautista, California came into being as a result of the creation of a new school district. Its staff, including Director Charlene McKowen, worked with architects and the community to plan a new building for the 370-student school. Despite a promising start, the project began to suffer due to financial constraints. McKowen remembers: “A bond issue didn’t pass and things started getting cut back. Pretty soon things started costing more than they were supposed to. We were cutting corners here and there and discouragement set in because we were in a compromise situation. The campus was supposed to be four or five buildings with one to five classrooms in each. The idea was that these would be built in phases. Two of them were built, but that was it, and now we work...
out of a row of portables in between them. We weren’t prepared to make compromises. When they had to happen we had to be really reactionary with a horrible timeline. The next time I do this, I will come up with a priority list to be ready for compromises and cuts.” However, Anzar’s staff has turned their space disparity into a strategic advantage, or has at least found the best side of the disadvantage, as McKowen describes: “Only a couple of teachers stay in the same room for more than a year in a row. Veteran teachers move around. This makes sure that no one is somewhere—good or bad—permanently, and all of us are accountable for each other’s state of being. This is going beyond collaborating and going to true collegiality.” At Anzar, changing classrooms is an honor, acknowledging the strength of more experienced teachers.

**SEIZE THE MOMENT**

Teachers, principals, and community members who have made small and grand changes to personalize their schools consistently give a few pieces of advice. Focus on your pedagogy and values; know precisely what you’re supporting when you move toward architectural change. Be ready when financial opportunities arise for new building construction, building renovation or building addition. Be absolutely clear about your values and priorities. Work with like-minded design professionals. Solicit input from the most effective teachers and teams, the most engaged students, and the school’s larger community. Fight for what you know your school needs and your students deserve.

Physical structures are more given to change than they appear. Even small changes can make a significant difference in strengthening bonds of connection. When schools focus on finding ways for students to do real work and emerge from school with adaptable life skills, they can then reshape their buildings to create the best places for learning.

Horace wants to hear about your experiences with changing school structures to support small learning communities and the Ten Common Principles. Go to www.essentialschools.org and join CES Interactive for a follow-up discussion; look for Educational Architecture on the Highlighted Discussion List. Or email Horace’s editor, Jill Davidson, at jdavidson@essentialschools.org; we’ll be collecting your comments and adding them to future online versions of Horace.
Architect and educator Jeffrey A. Lackney, Assistant Professor in the College of Engineering at the University of Wisconsin-Madison, created "Thirty-Three Principles of Educational Design" to focus school planners on the goal of creating intimate, human-scaled, flexible and enduring educational spaces.

A handful of the principles, adapted here for use in Horace, can help schools take advantage of opportunities to create small effective learning environments both within new school buildings and within existing spaces.

**COMMUNITY INVOLVEMENT**

**MAXIMIZE COLLABORATION IN SCHOOL PLANNING AND DESIGN**

Involve a wide spectrum of representatives from the community during the planning and design of a school. Authentic participation can assist in building community support for the passage of bond issues as well as give the community a sense of ownership in the process and product.

**PLAN SCHOOLS AS NEIGHBORHOOD-SCALED COMMUNITY LEARNING CENTERS**

Plan for the traditional school building to be transformed into a community learning center. Allow shared school and community functions into a cohesive facility or network of closely adjacent facilities.

**PLAN FOR LEARNING TO TAKE PLACE DIRECTLY IN THE COMMUNITY**

Formal educational program partnerships have been established with museums, zoos, libraries and other public institutions, as well as in local business workplace settings. Sharing school and community facilities prevents cost duplication for gymnasiums, auditoriums, performance spaces, and conferencing facilities.

**ACTIVE LEARNING**

**STUDENT AS WORKER**

Design for a variety of learning groups and spaces. Allow for as wide a variety of group learning sizes as possible. Curve partially open/partially closed space with adjacent, smaller, enclosed spaces. Ensure moderate visual openness, yet also ensure adequate acoustical barriers.
PROVIDE RESOURCE-RICH WELL-DEFINED ACTIVITY POCKETS
Ensure that each large-group, small-group, and individual learning space is an architecturally well-defined "activity pocket" for two to five learners with all the necessary surfaces, display, storage and resources. Activity pockets can take on a variety of architectural forms: simple learning centers, lofts, small alcoves and/or lecture pits. Include a variety of furniture layouts—some centripetal for group work, some facing outward for individual work.

PROVIDE STUDIOS TO SUPPORT PROJECT-BASED LEARNING
New instructional methods based on real-world authentic learning and authentic assessment methods will require a new form of instructional space. Provide locations for the generation and storage of semester-long projects as well as student portfolios. Include space for individual, small group, and larger group productions, including but not limited to audio/visual/digital studios, dance and performance studios, workshops for various visual arts, photocopy machines, and large open project tables. Adjacent to the portfolio process studio, provide flexible experimental lab stations for groups or individuals to explore and demonstrate discoveries in the physical and biological sciences.

ESTABLISH A VARIETY OF OUTDOOR LEARNING ENVIRONMENTS
Create spaces outside and adjacent to the building on site or on neighboring sites that mirror learning space within the building. To maximize the chance of year-round use of parts of the outdoors, create favorable micro-climates by protecting outdoor activity areas from prevailing winter winds and from the extreme summer sun while allowing winter sun to penetrate.

TEACHERS, ADMINISTRATORS AND PARENTS REGARD TEACHERS AS PROFESSIONALS
Provide private or semi-private office space for teachers, including space for personal belongings, phone/fax, personal computer, information technologies, desk and personal library. Cluster teacher offices together, but avoid overly large groups. The location of teacher offices should be adjacent but not central to instructional areas—teachers are not the center of education, learners are. Provide conference rooms where larger groups of teachers can meet formally to exchange information and teaching experiences with themselves and with school visitors. Include formal and informal meeting space, with support areas such as kitchenettes, storage and private restrooms.
In 1984, Ted Sizer introduced us to Horace Smith, the protagonist of Horace’s Compromise, the teacher who found himself—inevitably, innocently—shortchanging his students because of the way his typical American school was structured. Since that time, the Coalition of Essential Schools has worked to change the nature of schooling in this country. Our journal, Horace, has articulated our vision of schools—where intellectual excitement animates every child’s face, where teachers work together to get better at their craft, and where all children flourish, regardless of their gender, race, or class—along with practical help for getting there.

As longtime readers will see, Horace has a new look and a new editor. I am delighted to welcome Jill Davidson to this position and confident that readers will continue to find Horace to be an essential resource. Our new format creates room for pieces by educators from our network, and we invite you to let us know how you would like to contribute your voice to Horace.

Each year, in our four issues, we will focus on a specific topic in each of the key areas of school reform: school design, classroom practice, leadership, and community connections. As Kathleen Cushman noted in her final issue as editor of Horace last spring—and despite all of the challenges we face—Horace Smith would be heartened by the progress we’ve made since 1984. Horace will help us share what we in the CES network know about making schools places where teachers do not have to compromise—and where kids thrive.

When I worked in schools, I devoured Horace and its immediate examples of life-changing work in CES schools. Along with many, I am grateful both to the passionate people unshakably focused on making schools better and to Kathleen Cushman for relaying their stories. It is an honor to carry on this work. Thanks to all of the school staff and students who generously helped; thanks also both to the CES National staff and the talented people at lovejoy (creative)—they brilliantly transformed the look of Horace while preserving its spirit. Finally, I am grateful to all of the contributors to this issue; it truly was a collaborative effort.

After researching architecture’s effect on the power of small learning communities, I’ve lost my taste for the word “classroom.” We need transcendent language to evoke new images for students’ work environments, and we want to hear more about physically transformed schools. We will continue this conversation in CES’s discussion groups (at our web site, www.essentialschools.org), and you can email me at jdadavidson@essentialschools.org. In the next issue of Horace, devoted to classroom practice, we will focus on how teachers are maintaining their commitment to alternative assessments in the current accountability-driven policy environment. I want your stories—please be in touch!

Jill Davidson
Horace Editor
ENCOURAGE ADMINISTRATIVE LEADERSHIP BY DECENTRALIZING ADMINISTRATIVE SPACE
Decentralize administrative functions throughout the school/community learning center, yet ensure that each portion is visible to public areas of the school and not on the periphery of the school or hidden from view.

PROVIDE PARENT INFORMATION CENTERS
The parent information center can serve to help interested parents learn more about the school, to exchange and share their diverse knowledge and information on any number of topics, to act as a public relations office, and, most importantly, to act as a home base for parents within the school. Provide a separate entry for the public, an informal seating area with information about the school displayed so that visiting parents and the community can get an idea of school activities, and one or more private meeting rooms.

HOME-LIKE ELEMENTS
CONSIDER HOME AS A TEMPLATE FOR SCHOOL
Use friendly, "home-like" elements and materials in the design of the school. Home-like characteristics might include: creating smaller groupings of students, locating restrooms near instructional areas, providing friendly and welcoming entry sequences, incorporating residentially sloping roofs, and including enclosed "backyards."

PROVIDE A HOME BASE FOR EVERY LEARNER
Within the physical boundaries of each instructional area, create a home base for each learner. Include cubbies and lockers for personal belongings arranged in small groups to provide space for informal social interaction. Allow learners to personalize their space as much as possible and they will gain a more positive sense of self and take pride and ownership in their school.

CREATE PRIVACY NICHES
Develop several privacy niches or intimate counseling spaces for one-on-one or small group meetings for 2-4 persons that are relaxing, non-threatening, comfortable, and private. Include comfortable living room-type furniture.
SAFETY AND SECURITY

DESIGN MEANDERING PATHWAYS

Beware of long corridors, which are a costly percentage of a school building. Circulation areas can double as active learning spaces for the school. Design meandering pathways to increase opportunities for positive social interaction. Use circulation to create gentle transitions from different spaces, taking advantage of turns and bends to create unique areas of learning.

DESIGN FOR SAFE SCHOOLS

Three critical safe school design principles include access control, natural surveillance, and definition of territory. Natural access control uses doors, shrubs, fences, gates and other physical design elements to discourage access to an area by all but its intended users. Natural surveillance is achieved by placing windows in locations that allow intended users to see or be seen, while ensuring that intruders will be observed as well. Adequate lighting, glass and landscaping that allow for unobstructed views enhance opportunities for surveillance. Territorial reinforcement suggests that physical design can contribute to users developing a sense of “ownership” that is perceived by potential offenders. Sidewalks, landscaping, porches and other elements that establish the boundaries between public and private areas define territory.

Find the unabridged text of “Thirty-Three Principles of Educational Design” along with superbly helpful references and pointers to more information, at http://schoolstudio.engr.wisc.edu/33principles.html.

Continue the Learning with CES University

Creating small learning communities—in a new or an existing school—is no small task. However, small learning communities are essential components of schools that foster deep learning.

To learn more about how to foster personalization in your school, sign up for a CES University School Design Institute being held this summer.

For more details visit the CES Web site after November 8th, 2001 at www.essentialschools.org
Where to go for More

Resources for Using Architecture to Support Small Learning Communities

Here are some starting points for funding, support and inspiration for schools planning architectural change to support personalization and more powerful learning.

U.S. DEPARTMENT OF EDUCATION’s SMALLER LEARNING COMMUNITIES PROGRAM

Many schools find funds to support architectural restructuring through the United States Department of Education’s Smaller Learning Communities Program, a $45 million grant program aimed to develop, implement or expand smaller learning communities. Schools work with their districts to apply; applications for participation in the upcoming year of the program are due December 3, 2001.

web site: www.ed.gov/offices/OESE/SLCP/overview.html
email: smallerlearningcommunities@ed.gov.
telephone: 1-800-USA-LEARN

SCHOOL DESIGN RESEARCH STUDIO

The School Design Research Studio collects the work of Jeffery A. Lackney, including “Forming Small Learning Communities: Implementing Neighborhoods in an Existing High School,” which describes James Madison Memorial High School’s Neighborhoods plan, and the full text of “Thirty-Three Principles of Educational Design,” featured in this issue of Horace. Promoting collaboration among students, parents, school staff and community—all affected by school design—this site provides carefully chosen articles and pointers to resources that benefit people planning school architectural change.

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THE SMALL SCHOOLS PROJECT

The University of Washington’s Small Schools Project at the Center on Reinventing Public Education provides direct assistance to small, strong, sustainable schools across the United States. Rick Lear, previously with the Coalition of Essential Schools as a senior researcher on school design, directs the Small School Project. The Project’s web site is a rich information source for small school planners and practitioners; the Facilities section highlights several small learning community-building projects and provides links to further school building resources.

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The book review that follows was written many weeks before the tragic events of September 11, 2001. Those events, I believe, highlight the importance of exploring hard questions in our classrooms.

In 1993, I taught a unit on *The Adventures of Huckleberry Finn* that turned out to be a bit flat. During class discussion one morning, I made reference to the fact that *Huck* had been banned in many schools and school districts because of its “racist overtones.” “Where had it been banned? Why had it been banned? How could *Huck*, of all the books we have read, have been banned?” my students asked, it seemed in unison. As I have come to learn, with help from Kathy Simon’s new book, *Moral Questions in the Classroom*, my mode for addressing a sensitive issue like racism, at that moment in my teaching career, was to talk abstractly about it and to wonder aloud why racist language might have been more commonplace in the 19th century. I behaved the way Simon’s research suggests most teachers behave when faced with difficult questions from my students: I controlled the discussion. Had Simon’s book been around at that time (and had critical friends’ groups existed), I might have been emboldened to respond to the students’ questions and bring to life the issues we know Twain wrestled with as he wrote the novel. Instead, I did what Simon found many of us do when faced with hard questions from the kids. I remembered that we had a lot to cover, and I moved us along.

Chris, an outspoken and wisecracking junior, wouldn’t let me proceed. He was both incensed and fascinated by the phenomenon of censorship. In fact, he was so agitated that he lingered at the end of class, as he had a tendency to do, and questioned me on my reading selections for the class. “Why not read only banned books?” he asked, “They must be worth reading.” My thin response invoked standards of literary quality (that begged the question of whose standards) and “coverage.” We had to read *The Scarlet
Letter and The Crucible, I argued to Chris, because they were critical to "appreciating" American Literature (not because they would awaken the students' imaginations or their love of reading). These lessons are clearer eight years later, especially when considered in light of Simon's provocative and fascinating book.

Teaching well, as Simon reminds us, is tremendously difficult. Teaching controversial issues and moral questions well asks even more of a teacher. It asks us to know our subjects and topics from many different perspectives, and it asks us to be brave and open-minded. As Simon points out, to wrestle with moral essential questions means to embrace the Coalition's second common principle, less-is-more, in a sophisticated and bold way; it means we must learn to practice pedagogical neutrality (not to be confused with moral relativism), and we must try to conceive of our respective disciplines as more than a set of plots, terms, dates, or characters. In reflecting on Dewey's work, Simon writes, "Our aim in curriculum design must be to connect the record of humanity's great inquiries to the curiosities of the child."

As a daily practitioner, I know that the lofty rhetoric of Dewey is hard to make real, but I also know how powerful a child's curiosities can be. Chris was willing and eager to help me redesign my English class around questions of censorship and freedom of expression. Unfortunately, I was not ready to hear him. Simon knows that not all of us may be ready to hear her, and while her book identifies many of the obstacles to the kind of teaching and learning we all wish for, she spends the bulk of her time getting us into the classrooms and the minds of teachers and showing us how it might be different. If you want to jumpstart the way you think about your discipline, read it. If you are eager to see the "teachable moments" in your school differently, read it. And lastly, if you appreciate but aren't sure what to do with the hard questions that come from our students, read it. Moral Questions in the Classroom will help you hear them better.

Ted Graf is the Assistant Head at Watkinson School in Hartford, Connecticut and President of the Coalition's Executive Board. Katherine G. Simon is Director of Research and Professional Development at CES National.
In *Creating New Schools*’s introduction, Evans Clinchy—Senior Consultant at the Institute for Responsive Education at Northeastern University—questions the possibilities of autonomy within large districts, specifically Boston and New York. Linda Nathan and Larry Myatt’s chapter on the history and trajectory of Fenway Middle College High School compellingly describes that autonomy, specific challenges to it and the exhilarating and exhausting work that’s a result of it. The additional essays in the Boston section, by Robert Pearlman and Dan French, examine the district and state roles in fundamental, progressive school change.

*Creating New Schools*’ New York section features Ann Cook’s narrative of the transformation of the Julia Richman Educational Complex, which provides an insider’s view of one of the country’s most successful small-school restructuring projects. Analyses of the roles of the city’s public school system leadership, the teachers’ union, individual teachers and outside support groups round out the New York story.

*Creating New Schools* concludes with views from Debbie Meier and Seymour Sarason. Sarason reviews past school reforms, observing, "If the governance system is not explicitly designed for and obligated to creating and sustaining the context of productive learning, what we have now will continue to disappoint and, by any cost-benefit analysis, remain wasteful in the extreme.” This admonition that change won’t stick in a hostile political climate serves as a powerful reminder of the need for truly systemic reform.

*reviewed by Jill Davidson*
One Kid at a Time: Big Lessons from a Small School details the Metropolitan Regional Career and Technical Center, better known as the Met. I’ll confess: sometimes when I read about great schools, I sense that I’m peering desperately through terrarium glass at a happy ecosystem, clearly successful but mysterious. I’m left thinking, “Well, that’s great, but what did it take?” Eliot Levine breaks the glass and lets us in, showing the Met’s growth, process, challenges and dilemmas.

Opening the Met in 1996 in Providence, Rhode Island, Dennis Littky and Elliot Washor aimed high, creating the Met as a small high school devoted to experiential learning through internships, high academic standards and personalized school experience. Washor and Littky also lead The Big Picture Company, which works to influence schools in Rhode Island and beyond to follow the Met’s principles. They use the Met as living leverage to change education. No doubt they’ll be helped by One Kid at a Time, as will other educators looking for ways to make their schools powerfully relevant to their students. Levine offers detailed analyses of LTIs (Learning through Internships, the core of the Met) and other aspects of learning at the Met—including community connections, exhibitions, advisories, and the school’s standards for students, expressed as sets of skills and habits of mind. While Levine is clearly a huge fan, his love for the Met comes through in his ability to be critical. Levine challenges the Met, for example, to tighten and quantify its expectations of students. One Kid at a Time lets us in, past the glass, and satisfies our need to understand what it takes to connect kids to lives of learning and success.

reviewed by Jill Davidson
Activists and chroniclers of Chicago's small schools movement, editors William Ayres, Michael Klonsky and Gabrielle Lyon have assembled fifteen uplifting, informative essays in *A Simple Justice*. Offering history, philosophy, cultural criticism, pedagogy and calls to action, the various contributors make explicit the connections among small schools, social justice and educational equality. Charles M. Payne's examination of the socially progressive heritage of Mississippi's Freedom Schools links the small schools movement with 1960's Civil Rights work, reminding educators that the work they're doing in schools today has powerful social and historical meaning. Deborah Meier provides "The Power of Relationships," a concise think piece. Pedro Noguera reflects on the implications of educational achievement in Barbados. Most effective are the varied portraits of small learning communities. Among them: an interview with Tamara Witzl, head of Telpochcalli, a small Chicago K–8 school devoted to Mexican arts and culture, and Nancy Mohr's "Small Schools are Not Miniature Large Schools," with incisive reflections on her time as principal at University Heights High School in the Bronx.

Gil Schmerler ends the collection with "Engaging the System," nine pages that concretely assist educators and leaders who strive to expand the existence of well–run small schools from isolated hothouse rarities to the norm, possible in all places, many in number and necessarily differentiated. If you need to assemble arguments, persuasions and inspirations in support of small schools and social justice, ally yourself with the authors collected in *A Simple Justice*.

reviewed by Jill Davidson
In *Making the Grade*, Tony Wagner clarifies the need for school change in order to urge policymakers and school leaders to work concertedly on education’s real problems. Wagner, Co-Director of the Change Leadership Group at the Harvard Graduate School of Education, distinguishes between entrenched threats (achievement gaps among different groups, outdated goals and obsolescent curricula) and the quick-fix (and therefore, ultimately, less challenging) so-called problems that politicians claim will be solved by high-stakes standardized tough love. Wagner focuses on four challenges to excellent education for all: What should students know and be able to do—and who should define that? How can testing and accountability actually help schools and students? How do we motivate students to ask more from themselves and from school? And who will provide the crucial policy leadership that’s desperately needed to produce truly great schools?

As Wagner untangles overused rhetoric, he examines the attention-getters—teacher pay and accountability, school choice, school size, technology infusion—noting what works and what’s missing. He concludes that instant fixes won’t produce lasting meaningful change: a good school is the complex result of long-term cooperation among school and policy leaders, the community, students and their curricula. *Making the Grade* usefully describes and defends progressive school reform’s prize jewel: the belief that authentic, engaged learning leads to intellectually skilled adults. Wagner’s suggestions—that students ought to understand their worlds deeply, not to memorize and abandon fragments of learning—aim to resonate with a wide audience of school people, politicians and parents and aim to get everyone facing in the same direction, headed toward the same goals.

reviewed by Jill Davidson
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Responding to the Events of September 11, 2001

As this issue of Horace was going to press, the tragic events of September 11 took place. We asked Ted Sizer to help us all think about ways to respond:

Theodore R. Sizer

What do we tell the children? We tell them the truth. How we do that telling will depend on the youngsters’ ages and maturity, but even the littlest among them know that something terrible has happened. To express nothing teaches a savage lesson in unconcern.

What do we tell ourselves? To identify and to resist violence in all its forms, including those seemingly petty injuries so easy to overlook in our schools’ routines, even those that flow from heedless words. To take the time to talk issues out, thereby deliberately bearing witness to a peaceful process for the resolution of disagreements.

To address honestly the inequities in our own schools’ work which, especially when translated on to a large canvas, are fuel for violence. To give fresh prominence to the study of the humanities—of history, of the human search for meaning, and of the expressions of that meaning—that embody the best as well as the worst of humankind. Only by deeply understanding our human frailties, past and present, can we lessen the chance of our being their victims.

Terrorism is the antithesis of informed and loving civility. Our job is to serve the latter by practicing those virtues ourselves—each of us—abundantly and visibly. The children will watch us, and thereby learn.
**school design**

How do we design schools so that all students can learn to use their minds well? Topics include: structures for space and time, teacher collaboration, and data collection and analysis.

**classroom practice**

How do we bring Coalition ideas like less is more, teacher as coach, and demonstration of mastery to life in the classroom? Topics include: curriculum and instruction, assessment, and classroom culture.

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**leadership**

What kinds of leadership are necessary to transform schools into more humane and intellectually rigorous environments? How can the change process be sustained? Topics include: governance, distributed leadership, and managing the change process.

**community connections**

How can schools most powerfully engage the community as advocates and partners in the education of its students? Topics include: parental involvement, service learning and internships, and using community members as resources.
school design

Educational Architecture on a Human Scale
Radiant streams of sunlight. Wireless networks and handheld computers. Window seats, balconies, triple-story atriums, curved passageways, upholstered furniture, multi-function meeting rooms, huge closets and rooftop gardens. So, what are you thinking of? Schools? If you’re not, a cadre of Coalition schools aims to change your vision of educational architecture. They have remade the physical structures of schools to support small learning communities and the work of incorporating the CES Common Principles.

Coalition school leaders, teachers and students make radical changes from traditional educational practices to produce authentic, connected learning. Often, this means reforming in the literal sense—reworking the physical architecture of school buildings. In order to create the possibility for students to be active, for teachers to coach, and for everyone to know each other well, CES schools create environments where students can move around, create, and work. In these same spaces, teachers move with them, escaping the front of the room, sitting with individuals or a few students in quiet spaces, and joining with other teachers to work across disciplines with larger groups.

**Opportunity for Widespread Change**

Large comprehensive schools built a half-century or longer ago have reached their physical and pedagogical limits. Numbers of students overwhelm their capacities. They’re aging, crumbling and not working for teachers and students. According to the National Clearinghouse for Educational Facilities, United States public school districts are slated to spend twenty-eight and a half billion dollars in 2001 to build nearly two hundred million square feet of new or renovated schools. But what will these new or revamped schools look like? State and district authorities may well push toward apparent (though likely false) economies of scale and try to propel schools into building big for the long term.
Recently, some Coalition and other innovative schools have seized upon this opportunity for change, choosing and sometimes fighting to create facilities designed for teaching and learning on a human scale. Some have done away with classrooms and corridors and have created new, flexible spaces that support interwoven disciplines, projects and exhibitions, and intimate learning. Others pursue and achieve those goals within old school buildings that have been wrestled into the kind of shape that supports personalization, sustained inquiry, and the bedrock of solid community both within the school and beyond. All aim to create schools that communicate the real worth of education. As Heidi Early, science teacher at Noble High School in North Berwick, Maine, says, “Kids are used to being in the spaces that they think they deserve. What schools look like tells students what they’re worth.”

**Form Follows Function**

Physical space reflects educational philosophy. Educators who reorient physical space to support essential learning agree: set clear pedagogical and social goals before you organize space. Ann Cook, Co-Director of Urban Academy, a small Manhattan high school that shares space in the Julia Richman Educational Complex with six other autonomous schools and three teacher/student service centers, advises, “Before you do anything, make a

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*Educators who reorient physical space to support essential learning agree: set clear pedagogical and social goals before you organize space.*

*Noble High School main entrance - warm, inviting and functional*
commitment to small. Decide educationally that it’s important to have small learning communities. Build the whole school culture. Then you can deal with how to support it architecturally, after you know what you’re doing programmatically.”

Starting in 1992, Chicago Vocational Career Academy remade its space to form ten separate academies. Its then principal, Dr. Betty Despenza-Green, now Director of the National High School Initiative at the Small Schools Workshop based at the University of Illinois at Chicago, reflects, “Everyone wants small but it doesn’t mean anything if you won’t do other work that goes along with it. You can have a bad small school as well as a bad large school. Instead of starting from the physical, you need to start with the program you know you need to have. Then you can see how your existing structure won’t let you do that. And then you do the work of making physical changes.”

Noble High School moves into a new school building this academic year. Heidi Brewer, social studies teacher, knows that over a decade of innovative Coalition practice prepared the community to plan space that would allow them to continue their mission. “We had the philosophy first. Can you imagine the nightmare if we tried to start all kinds of new things in our school after
we moved into a new building?” Pamela Fisher, former principal of Noble and catalyst of the new building project, agrees, asking the Noble planning team’s fundamental question: What would the physical design of the learning environment look like to fulfill and to enhance the beliefs of the school?

**Homés for Learning Communities**

CES educators and students experience traditional school architecture—long hallways, enclosed, isolated classrooms—as linear and disconnected, evoking assembly-line ethics and forcing separation. To enable connection in Albuquerque, New Mexico, Cleveland Middle School created “families,” teaching teams with small student groups looped together for the three-year school experience. In the beginning stages, confronted with the limits of a portable classroom, teacher Wayne Smith and his teaching partner took matters into their own hands. “In the second year that we had our family, we moved into a double portable divided by a wall. We were used to interdisciplinary work and we needed a huge area. We put in a work order to have the wall removed, but the district said no. So we went in with sledgehammers and pickups and took the wall out.” Smith, now Cleveland’s principal, laughs as he recalls his renovation project. The wall demolition began a push at Cleveland for more flexible space throughout to support the school-wide family groups.

You have to build flexibility into any new building; you’re building schools that you know will change.

One of fifteen Noble High School communities
As tempted as some teachers may be to follow Smith's lead, most schools use discussion, not sledgehammers, to find ways to create space that supports small, independent learning communities. Jeffrey A. Lackney, Assistant Professor in Engineering Professional Development at the University of Wisconsin–Madison, worked with staff and students at Madison's James Madison Memorial High School to develop the Neighborhoods project, which creates four large spaces for student governance, academic enrichment, and close teacher-student contact. Responding to staff and student desires, the Neighborhoods plan creates personalization and increases ownership and control among students. In "Forming Small Learning Communities: Implementing Neighborhoods in an Existing High School," Lackney describes the Neighborhoods project: Memorial has gathered its 1,600 students into Backyard, Block and Neighborhood groups. Twenty

students across the grade levels and one teacher form a Backyard group. The Backyard group is the core group, like an advisory and replacing home-rooms. Five Backyard groups form a Block group. The Block group plans and coordinates a variety of activities, such as service-learning projects. Five Block groups combine to make each of the four Neighborhood groups; each Neighborhood occupies a newly remodeled space within the school that is home base for its students and teachers. Dr. Pamela Nash, Memorial's
principal, used a United States Department of Education Smaller Learning Communities Program grant to plan and build the Neighborhoods, which were constructed during Summer 2001 and are in use by all students this fall.

In planning its new building, Noble tackled the issue of how to create small, pedagogically autonomous groups in a new school by creating fifteen independent learning communities, each populated by four teachers and a hundred students. Each community contains storage areas, office space for teachers and support staff, a project room, classrooms with moveable walls, a science lab, and a central multi-purpose room, large enough to accommodate the learning community's students and staff. Each community is the central learning space and hangout for its students and teachers. Greg Bither, Noble's Assistant Principal, describes the new building: "The communities were designed with the idea that groups of students and teachers will take ownership of certain spaces."

"The corridor becomes the unifier of curriculum and ideas"—Debbie Meier