



## DESIGNING FOR ACHIEVEMENT

# *Designing for Achievement: Processes, Principles and Patterns*

## *How physical spaces can shape a school's learning culture*

By Victoria Bergsagel

*This article explores how architecture gives form to the patterns by which we live and how our interest in a school's physical space can influence its philosophy and learning culture. The author shares key ideas from a recent book which she co-authored titled, **Architecture for Achievement: Building Patterns for Small School Learning**. The book outlines 26 patterns of powerful learning.*

Educators throughout the country are finding that the marriage of form and function can enhance and literally shape a school's learning culture. As schools start up, grow, or reconfigure, the physical spaces they occupy have enormous power to either propel or blunt efforts to transform teaching and learning.

Communities are crying out for ideas that will help them design learning environments on a human scale where adults connect with students in ways that transform lives. Using more powerful *patterns, principles and processes*, exemplary school systems are realizing outstanding educational results.

*How do we build stronger bridges between the worlds of education, community, and architecture to design schools that help ALL students achieve?*

We can begin by using design and planning tools to devise more powerful places of learning.

### **Patterns**

New educational approaches require new architectural patterns that challenge familiar school design patterns passed down through generations. We can see some of those old patterns in the academic tactics (such as workbook drills or multiple-choice tests) that schools use to command and control large groups of students. But they also show up as recurring elements in school architecture. The confining classrooms, the rows of desks facing front, the institutional corridors—all reinforce the message that school is a place where young people comply with authorities who dispense information, not a place where they actively construct knowledge and create meaning.

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We must therefore confront common design assumptions embedded in the place we call school. As school construction and reform initiatives sweep the country, the United States is giving much more serious thought to how to build stronger bridges between the worlds of education, community, and architecture.

Once we understand how architecture gives form to the patterns by which we live, we begin to see how a school's spaces can also express and influence its philosophy. The very process of designing such spaces prompts us to reflect more deeply about what schools stand for, and how they interact within their larger environment. "When you build a thing you cannot merely build that thing in isolation, but must also repair the world around it, and within it," wrote Christopher Alexander.<sup>1</sup> His statement deeply resonates with the challenges communities face as they try, for the sake of future generations, to reshape public policies, decisions and attitudes about the design of schools.

A number of colleagues and I recently wrote a book entitled *Architecture for Achievement: Building Patterns for Small School Learning*.<sup>2</sup> In it we outline twenty-six patterns for powerful learning. Three of my favorite patterns include:

**Display:** Great schools rest their reputations on the quality of student work, displaying it both formally and informally throughout their buildings. By doing so, they continually raise the bar for good work as students take a look at what others do and try to match or better it.

**Transparency:** People ought to witness learning as it happens in a good small school. Learning is contagious; success is seductive. Seeing other students engaged in interesting work can make young people want to do it too. When anyone in the school community can observe students at work, high standards become everyone's business, and then expectations carry more weight. Students feel more welcome to approach teachers if the



Display of student work is paramount at High Tech High in San Diego, CA. At every turn, student work makes standards visible, continually raising the bar for good work.

Photo Credit: David Stephen

school's design makes access to adult workspaces easy and visible. The school becomes a safer place as well when most of the actions within it have a public aspect.

**Clusters of Learning:** Just as a school's academic program should not group together so many students that their teachers cannot know them well, its room arrangements should avoid a sense of mass production. Think of the spaces in your school as clusters of adjacent rooms that house small communities, which can break into even smaller groups to afford a variety of settings for learning. When several small schools share a facility, design it to support each school's autonomy.



The Denver School of Science and Technology's academic wing houses four "neighborhoods" of adjacent seminar rooms, studio spaces (pictured above), teachers' offices student lockers, and outdoor learning patios. These neighborhoods promote a sense of ownership and place.

Photo Credit: David Stephen

## Principles

Prior to developing our "pattern language," the team with whom I wrote *Architecture for Achievement* spent years studying and observing attributes of successful schools. Our research and experience resulted in the development of guiding principles for smart small school design.

**Personalized.** Students achieve at higher levels when they are known well by adults at school. As trusting student-adult relationships develop, learning becomes increasingly individualized and students receive the requisite support to achieve at levels not previously attainable.

**Learning-focused.** Schools must commit to a challenging, engaging curriculum for all learners. Our society and economy can no longer afford schools that promote students to a higher level merely for showing up.

**Collaborative.** Effective schools defy isolation, insisting that students, adults, family, and community work together to foster student achievement.

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*Community-connected.* Community connections can authenticate the curriculum and lead to higher student engagement. In turn, good schools can also revitalize communities.

*Adaptable and flexible.* School design must acknowledge the rapid pace of change, creating structures that are both flexible and adaptable. Only by so doing will our nation avoid repeating the situation in which we now find ourselves—a school system that no longer meets the needs of all its learners.

Our nation, our states, and our school districts must make a priority of creating personalized, learning-focused, collaborative, and community-connected school buildings that can flex and adapt in both the short and long term. That investment will pay rich dividends as all students—regardless of their economic or ethnic background—flourish and achieve.

## Processes

Nostalgic thinking for “what was” exerts a gravitational pull back to the familiar. If school buildings are to encourage transformational change, we must call into question the comprehensive school experience so deeply embedded in the American psyche. When only seventy percent of our nation’s students graduate – and the number hovers around a measly fifty percent for students of color and poverty – it is high time we call into question such assumptions.

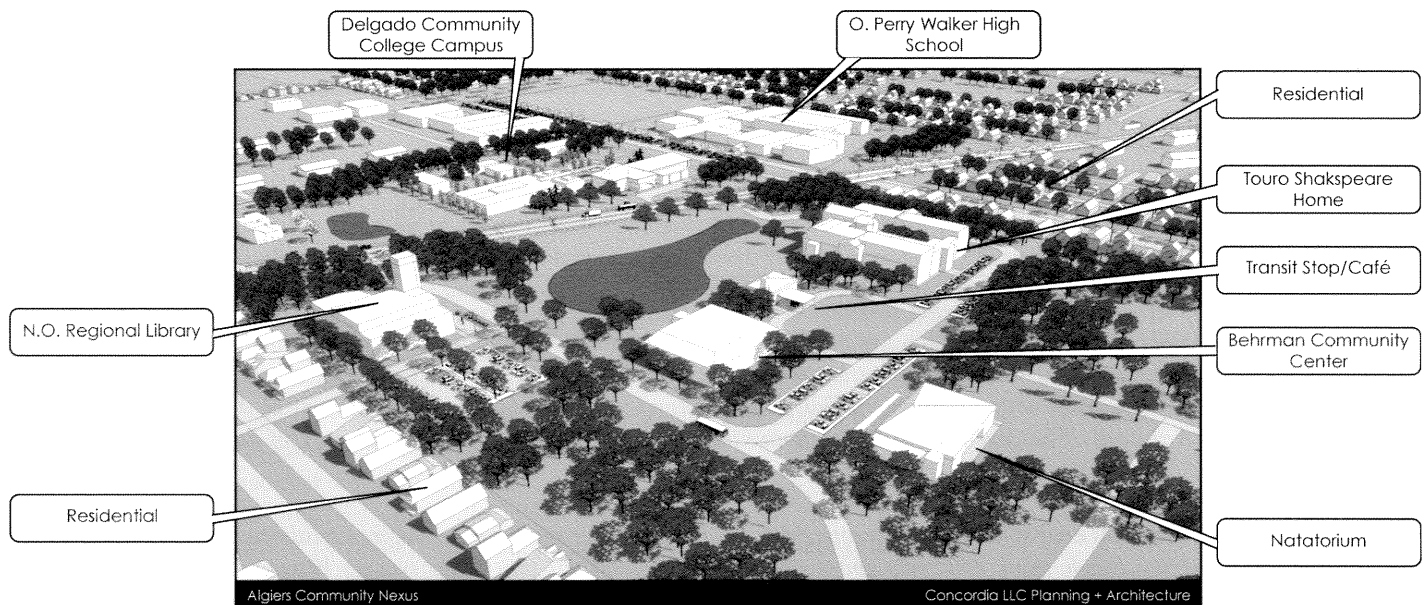
Communities should enter the world of school design from many points, exploring a variety of ways to get “from here to there” as they work to design more powerful places for learning. Which activities

and amenities to offer in school buildings become complex decisions, involving cost, focus (intentional and unintentional), facility availability, community assets, culture, and instructional practices. The conclusions that planners reach regarding what paths to take—to meet various needs, in various ways, for various learners—inevitably reflect community values, as well as shaping the dreams and aspirations of the next generation.

Success in overcoming the nostalgic gravity of our nation’s comprehensive school system will rest on four critical *processes*: 1) the engagement of school communities in meaningful ways; 2) the cultivation of courage, skill, and fortitude within school leaders; 3) a commitment to effective professional development for teachers; and, finally; 4) the design of facilities in which personalized learning environments will carry out their ideals and goals. That last process affirms the ultimate purpose of designers: providing tools to tailor buildings to meet the needs of all learners.

My colleague, Steven Bingler, is using powerful process tools to engage his community in rebuilding Katrina-ravaged New Orleans. Working with a variety of local constituencies and planning districts, his team brought a dream team of planners to New Orleans to develop the region’s revitalization plans. Hosting a variety of neighborhood and city-wide meetings, they engaged the voice of all stakeholders in a *community congress* as teams of people from all walks of life examined whether schools in every neighborhood of New Orleans should be brought back as part of what’s called a *community nexus*.

As *Time* magazine wrote in its February 26, 2006 issue, “The state is examining whether schools in every neighborhood of New Orleans should be brought back as part of what’s called a



A prototype community nexus has been developed in the New Orleans' Algiers neighborhood. The nexus planning process included citizen stakeholders as well as partners representing a wide range of educational and community service organizations.

*Drawing Credit: Concordia Planning and Architecture*

community nexus. Each school would be part of a fabric of facilities that could include a library, recreation center, health clinic, performing-arts space and even a community catering kitchen. All of them would serve students and other people from the surrounding neighborhood. That would avoid the duplication of costs when cities build, say, public libraries and school libraries. Other cities, including Chicago and Providence, Rhode Island, have adopted the approach in individual neighborhoods, but no other city has thought about attempting it across the board. 'It will be a quantum leap,' says Steven Bingler, head of Concordia LLC, a New Orleans – based architecture and planning firm that has been spearheading the effort. 'And it will be one of those things that it took a hurricane to get there.'<sup>3</sup>

## **A Design System that Works**

Architecture and community planning, like language, is not a linear process. The use of critical patterns, principles and processes can help communities to prompt new ideas, not prescribe them. Great ideas will evolve when powerful pattern languages are in harmony with geography, climate, context, and the culture of place.

Patterns, supported by sound principles and processes, reinforce the point that architectural choices—like all choices made about

learning environments—must aim to help all students succeed. Since one size never fits all, exemplary planners help *school systems* become *systems of schools* that provide a broader range of options for students and their families. We need to encourage a dialogue that focuses on supporting the rich diversity of learning needs in our schools today. A healthy debate is warranted and innovation is essential if we intend to meet the current and future needs of all learners.

Rather than offering how-to manuals, we need to help communities identify patterns, principles and processes to build bridges linking architects, educators, administrators, students, community members, contractors, and trades people in the essential conversations that precede and accompany school building projects. Rather than provide easy answers, we need to ask better questions. In the spirit of developing great schools, we hope such conversations will recur and deepen as communities dip again and again into patterns, principles and process as a language of practice—of architecture and of education—to create new meanings, and new places of learning where all of us will thrive.

## **References**

- 1 Alexander, C., et al. (1977). *A Pattern Language: Towns, Buildings, Construction*. New York: Oxford University Press.
- 2 Bergsagel, V., et al. (2007). *Architecture for Achievement: Building Patterns for Small School Learning*. Seattle: Eagle Chatter Press.
- 3 Lacayo, R. and Thomas, C.B. "The Big Blank Canvas." *Time Magazine*, (February 26, 2006). <http://www.time.com/time/magazine/article/0,9171,1167748-1,00.html>

## **About the Author:**

**Victoria Bergsagel** is passionate about designing schools where all students achieve. Harvard-educated, Victoria has been a high school teacher, counselor, principal, district administrator and professor. As the Director of Design in a large public school district, Victoria led the educational program planning upon which the construction of new schools was based. As the Director of Educational Partnerships at Talaris Brain Research Institute, she worked with an interdisciplinary team to conduct, integrate, and interpret some of the world's leading brain research. She founded Architects of Achievement to help communities across the country integrate the work of facility design into school reform.

Her heart, intelligence and skills enable her to help groups think beyond normal boundaries to inspired solutions. She provides high-level consulting expertise helping people think creatively about effective design solutions that foster synergy between program and building, community and school. Two of her projects have been finalists for the James D. MacConnell Award.

Victoria serves as a consultant, featured speaker, and design jurist for clients ranging from school districts to national architectural organizations to education departments in the U.S. and abroad. She sits on the Board of Trustees of the CEFPI Foundation & Charitable Trust.