2010 CAE Educational Facility Design Awards

The goal of this annual AIA-Committee on Architecture for Education awards program is to identify emerging trends and ideas in the design of educational and cultural facilities, honor excellence in planning and design and to share knowledge about best practices in the field of design and planning of educational and community facilities.

This year, the American Institute of Architects (AIA) Committee on Architecture for Education (CAE) honored 9 educational and cultural facilities. Three received Awards of Excellence, two received Awards of Merit, and four received Citations.

69 submittals were received. The jury narrowed down the selection to 30 projects that were deliberated upon at the Office of Olson Kundig architects in Seattle. The selection of the finalists was a culmination of a series of rich discussions between the jurors about what constitutes architecture for learning. Several themes emerged in the thread of discussions related to the selected projects. These included:

- Demonstration of excellence in architectural design
- Integration of the local environment as an integral part of the design and learning experience
- Holistic design and planning approach
- Making learning transparent with intrinsic and extrinsic visual connections
- Understanding of social and emotional needs of learners and the corresponding manifestation into physical spaces
- Blurring the boundaries between indoor and outdoor learning
- Blurring the boundaries between ‘school’ and ‘college’

Serving as jurors for the 2009 awards were: Chair Caroline Lobo, PhD, Orcutt | Winslow Architects; Peter Lippman, JCJ Architects; Tom Kundig, Olson Kundig Architects, Jeanne Narum, Project Kaleidoscope and Bruce Lindsey, Washington University, Sam Fox School of Design and Visual Arts
Awards of Excellence

NCCU Biomanufacturing Research Institute and Technology Center, Durham, NC

o‘brien/atkins   freelon

• 180 students
• 60,000 SF
• $19m

BRITE is a gateway to the NCCU campus. Designed in collaboration with industry partners, the facility houses state of the art laboratories for faculty + undergraduate students to conduct applied research in areas related to biomanufacturing, giving students a real world learning experience and the opportunity of earning a degree in 2 years. Labs designed with limited fixed benches provides adaptability and flexibility.

Juror’s comment: This project is soundly grounded in a vision of the future of learning and research in scientific fields—and it signals that vision on several counts. If students (from undergraduates to post-docs) learn best when they have the opportunity to do science as scientists do science, this facility sets a high bar on how to make that happen—from the first planning steps through the architectural design—internal and external.

The Cathcart Site, Snohomish, Washington

nac | architecture

• 2225 students
• 298,000 SF
• $81.8m

Conceptually designed for “Nature to Become the teacher” through visual, emotional, cognitive and tactile learning. The site and buildings are designed for continuous re-discovery of nature through changing experiences of views and tactile interaction with courtyards, rain gardens and site inspired artwork. The scale, location, and character of these spaces enrich students and users daily experience on the site creating individual and group learning spaces. The integration of the site design, outdoor spaces, and the nature path allow programs like science and art to expand outdoors and connect with other programs, expanding the capacity of educators to allow the natural amenities of the site to enhance and broaden the learning experience.

The project is rooted in its place. The salvaged site infrastructure of logs, stumps, and boulders reinterpret the memory of the site and create a new and persistent sense of place.
Jurors Comment: This is a carefully constructed and integrated intellectual argument (and design) that addresses in a most substantive way the complexity of designing learning environments. The metaphors that emerged from and shaped the planning are evocative.

**Michael J. Homes Science and Student Life Center, Atherton, California**

Leddy, maytum, stacy architects

- 550 students
- 44,100 SF

The Center, located on an existing historic campus, designed as a first LEED platinum project in the country, accommodates a unique hybrid program, bringing together 8 science classrooms, a 700-seat auditorium, a 350-seat dining hall and other student life functions in one building. The Center is designed as a building that teaches, supporting a robust science curriculum and promoting eco-literacy by clearly telling the building’s story – how it breathes, conserves energy and water, generates power from the sun, recycles waste, supports biodiversity and resists gravity and seismic forces. The new building creates a new campus quadrangle while preserving native oaks and ecosystems. Through color, texture and scale, it offers a contemporary dialogue with the historic 1898 Main Building nearby. Both formal and informal gathering spaces encourage creative interaction at many scales, fostering a strong learning community. A student-cultivated organic garden provides fresh produce to the Dining Hall.

**Jurors Comment:** This is a project that celebrates sustainability both on a physical and educational level. The response to context is beautifully articulated in the design of the center and the integrated outdoor spaces.
Awards of Merit

Manassas Park Elementary School, Manassas, Virginia
VMDO architects
- 765 students
- 140,000 SF
- $28.9m

Besides being designed to meet the 20-30 challenge, the building is designed as an educational ecosystem. Wayfinding & finishes echo the adjacent forest. Classrooms are themed after local flora & fauna. The design team integrated multi-purpose informal spaces inside the building for young kids. Educators encouraged a design that didn’t separate the grades into different grade groupings. Breakout spaces and transparency are integral to the design of this project.

Jurors Comment: As a total package, this is an impressive project. Planning involved defining a 'green school,' capturing lessons learned from other projects, understanding that there is no such thing as an un-teachable space. An imaginative use of metaphors.

Gray Middle School, Tacoma, Washington
Mahlum architects
- 750 Students
- 116,000SF
- $42.5

Designed as an extension of the community park and community center making the location of the school a community hub. Thoughtfully designed as to how students would move through the school. Small learning communities that support interdisciplinary curriculum and collaboration are organized around science classrooms and shared indoor and outdoor learning areas. Open visual access between learning spaces and common areas maintains a strong sense of school community and communication.

Over 200 glu-lam beams, each 20-40 feet long, were salvaged from the old high school on the same site. The school teaches by expressing sustainable strategies that encourage students and staff to become knowledgeable stewards of the environment.

Jurors Comment: The architect has created a learning community that is about the learner, the learners and the building as a vehicle that promotes a variety of learning zones for different engagements. This is architecture by intent and is grounded in ideas and concepts about how people acquire knowledge.
Citation
Concordia High School, Shanghai, China
Perkins Eastman Architects

- 500 students
- 110,000 SF addition

Designed as part of a master plan for a k-12 facility, this project is envisioned as a billboard for 21st century learning and state-of-the-art college preparatory environment. The building incorporates planted walls and green roofs to help demonstrate the value of sustainability. As a place of transition from high school to university, circulation spaces such as traditional corridors and lobbies are programmed as commons areas for increased levels of independent activity in between formal class time and as an alternative instructional environment. Designed around a series of ‘commons’ type spaces, the physical layout of the school mirrors the curricular impetus to promote independent learning and research.

Jurors Comment: beautiful and skilled piece of architecture that has articulated and shaped the different pieces while paying attention to creating a college like atmosphere for high school students.

Foster Students Innovation Center, Orono, Maine
Oak Point Associates
- 5700 SF
- $1.57 m

Nestled into the woods, this project speaks to notion of an integrated design approach. The design of the center functions as a learning lab wherein plans and specifications were used to teach estimating, drawing, and engineering review; forestry students had hands-on experience with tree removal; a student project managed the manufacture of University-designed experimental roof panels.

The Center is divided into private workzones and public interaction zones. The work areas are nested within the building, providing the most privacy. The open spaces promote interaction and cross-pollination of ideas among students through their informal, relaxed atmosphere.

Jurors Comment: This project is successful, because it involved students and embraces 21st Century ideals of creating an active learning environment for the active learner. Rooms are designed with roll up doors to allow learning to extend beyond the classroom so that there are greater opportunities for learners to distribute (cross pollinate) ideas with one another.
**School Without Walls Senior High School, Washington, DC**
ehrenkrantz, ekstut & kuhn architects
- 440 students
- 66,000 SF addition/renovation

The program, the buildings and its setting blur the boundaries between high school and higher education enabling junior and senior year high school students to earn an associates degree from George Washington university. In turn, the university uses the building after hours as an extension of their campus and classroom inventory to accommodate their evening peak demand, serving adult learners from across Washington DC’s metropolitan area.

The design of the addition and the existing remodel fosters formal and informal learning opportunities for students. Even though the addition was built on a tight ½ acre site, the designers were creative in designing learning spaces filled with daylight.

**Jurors Comment:** As an urban retrofit/addition, this facility works. It serves as a strong visual and intellectual link to adjacent university. It respects the historic nature of American high schools, but in the way it blurs the boundaries between formal and informal spaces for learning and learners, it signals a 21st century understanding of nurturing learning environments.

**Thurston Elementary School, Springfield, Oregon**
Mahlum architects
- 550 students
- 59,000 SF
- $17.6m

Designed as a prototypical solution for a school District, this project was designed from the point of view of elementary kids. The design exhibits the project teams understanding of behavior and learning nuances with elementary kids and context of the place. The design carves out five small learning communities, each encompassing four classrooms grouped around one break-out space with direct access to the outdoors. The school life is transparent to the community through the interplay of public spaces and classroom wings.

**Jurors Comment:** A wonderfully transparent, agile and creative space for learning and learners. It is contextual in every dimension, from use of materials to providing access to landscapes for learning. A responsible solution to the challenge of shaping learning spaces that serve the community.