Trends in Campus Architecture and Planning

By Ahavah Revis (01/18/2012)

On Nov. 16-18, 2011, Trespa hosted the Cutting-Edge Campuses program at its Design Centre in lower Manhattan, bringing together leading architects responsible for shaping the landscape of colleges and universities across the United States to explore ideas regarding 21st century planning, design and programming.

Trespa’s presentation on “Facade Applications for University Projects,” showcased materials and applications of rain-screen cladding systems at universities.

The keynote Presentation was entitled “Inside The Box: Capitalizing Upon Creativity,” by Lori Pavese Mazor, RA, LEED AP, associate vice president for global facilities, planning and policy, New York University.

Architects welcomed a three-hour roundtable on Nov. 17 as an opportunity to share ideas. Comments questioned the line between construction management and architectural services; architect led design-build; design-build turnkey; AIA documents; the use of Revit, BIM and AutoCAD; tracking energy use on a widescale; independently metered buildings; façade specialties; bridging documents; the pace of state-funded projects, student-funded projects and bank-funded projects; and the importance of owner-provided documents.

Here are words from each of the 11 panelists, the architects to watch.

• Daniel Beyer, AIA, LEED AP
  Senior Associate, Continuum Architects + Planners, Milwaukee, Wisc.

“We have seen the higher education market in somewhat of a transition period over the last few years. The top factors that college administrators and planners are looking for when they embark on a building project are sustainability; recruitment; smart, quality and community buildings.

“We see campuses not inquiring about sustainable buildings, but instead requiring sustainable buildings. Buildings on today’s campus must be designed to use less energy, to use less water, and to use sustainable materials. LEED certification is not a must, but following the LEED guidelines and goals is often a pre-requisite to a college campus building.

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“Colleges are placing a high value on constructing buildings that will aesthetically enhance their campuses and contribute to the student atmosphere. Administrators are aware that new buildings and environments are not only beneficial to recruiting students, but also integral in improving the quality of the college’s applicants.

“Colleges are looking for smart building buildings that can integrate seamlessly into their existing information technology systems, as well as be state-of-the-art technological hubs that facilitate Wi-Fi and cloud computing.

“Simply put, buildings have to be easy to operate, easy to clean, use appropriate materials for their occupants, and be durable long-lasting edifices.”

• Douglas Dahlkemper

Senior Associate, Continuum Architects + Planners, Milwaukee, Wisc.
Dahlkemper received an undergraduate degree in landscape architecture and fine art from Penn State University and completed a Masters Degree in architecture at the Southern California Institute of Architecture. His interest in design and architecture is based on a holistic understanding of the environment as a continuum. Dahlkemper has over 20 years of work experience in architecture and has worked on a variety of project types including museums, cultural and performance projects, institutional laboratories, academic buildings, master planning and urban design efforts. He is currently working on higher education projects including law schools, general academic buildings and student centers.

Describing the role of university leadership, in the design process, Dahlkemper noted that they have definitive preferences in terms of style, what message the completed facility should project, materials and more, making it difficult to generalize marketwise.

“We all have expertise in different avenues and one of the benefits of today was hearing from people who are really intimate with the process. One unique aspect of higher education is the alumni. It is very unique as a project type.”

Fauzia Sadiq Garcia, AIA, LEED AP

“Repurposing existing space based on an institution’s priorities and sustainability are current trends in the design and planning of higher educational facilities. Increasingly, clients are asking for design ideas prior to the award of the project and any interaction with the stakeholders. As designers, we should take into account what is not anticipated by talking with school officials, faculty, staff, and students to create more efficient, multi-use and flexible spaces to accommodate the client’s needs.

“At VMA, we have designed new buildings and have also worked with many higher education clients to re-evaluate their existing and underused spaces to create better organization and utilization for the growing needs of the institution. We employed the latter model when conducting renovations at the University of Pennsylvania Law School. Programmatic priorities were established after completing a space-use study and interviewing the school community about which spaces were valuable, which needed to be flexible and what goals they wanted to accomplish. Collegiality was promoted by creating impromptu collaboration spaces, often in underutilized areas of the building, including corridors. We turned spaces that were older and almost never used to create more active seminar spaces, and IT offices. Spaces that were once dark and avoided are now destinations for studying and collaboration amongst students and faculty.”

Marc Gee
Principal, Peter Gluck and Partners Architects, New York, N.Y.

“We start with an owner, an individual or organization that has need for a new facility. After identifying his project, he needs a designer and ultimately a builder, to handle its construction. At this critical point the schism begins. The owner has a separate relationship, both legal and physical with the contractor. In essence, a wall grows between the two entities, each charged with fulfilling his needs. As it turns out, that wall overtime has grown impenetrable, it has become legal, cultural and, certainly, adversarial. There is need for communication, sharing of information and strategic decision making across that wall, but the only means whereby the process can occur has devolved into a cumbersome, legalistic dance the purpose of which being to reduce each parties’ liability for error. Where is the owner in this dance macabre? When the inevitable conflict occurs, he becomes the arbiter, the judge in an arena where he has little experience or knowledge. His position is compromised, and made impossible by the legal and professional structures that have resulted from this separation of function. The obvious solution to this dilemma is to merge the interests, knowledge and talents for design and construction into one entity. In this paradigm, the owner has one single source of communication and one single source of responsibility for his project. We feel that this integrated process allows for the coordination, knowledge sharing and cultural integration necessary to produce great buildings efficiently and cost effectively. Secondly, as architects we feel that those charged with the design and ultimate operation of the owner’s project are best able to lead the design build entity, for it is the design of the project that ultimately leads to its success; functionally, practically, artistically and ultimately responsibly to its community.”

Kevin S. Herrick, AIA
Principal, S/L/A/M Collaborative, Glastonbury, Conn.

In addition to principal, Herrick is a market leader in the Higher Education Studio. With more than 23 years of international experience in the industry, he brings a distinctive set of skills to projects and a personal commitment to clients and project teams. In addition to award-winning design expertise, he possesses a broad range of project management experience. His most recent projects include a 235,000 SF biomedical research facility for Nationwide Children’s Hospital Research Institute, a new 450,000 SF facility for the Swanson School of Engineering at the University of Pittsburgh, and a master plan for a new 25,000 student science and engineering research campus for Shandong University in Quingdao, China.

“Client budgets can be overcome through the presentation of innovative design — making traditional design firms more competitive against design-build firms through the creation of high-performing prestige projects.”

Herrick’s experience says there are strategies firms can employ to convince college and university clients that they do not have to settle for pre-fabricated metal buildings, but can, and should, aim higher.

Daniel R. Kenney, AICP, AIA

“As a planner and designer specializing in the campus realm, I recognize the issues my clients face are not necessarily new. What is changing in these tough economic times is the way we approach these issues. Funding for both public and private institutions is unpredictable and most colleges and universities are experiencing a lack of funding. Some experience surges of unanticipated funding for donor driven projects, which sometimes limits the institution’s ability to proceed with strategic priority projects. Combined with this unpredictability is the student and faculty demand for the best of the best. This disparity in capital project drivers is a challenge and an opportunity. Problem-solving is at the heart of design and these limitations provide an opportunity to foster creativity and innovation. Designers need to reexamine their process, allowing for new thinking and ideas that result in reinvention. Because academic goals have physical implications, strategic planning and space programming are now more important than ever in making decisions about capital allocation and development. Master plans can no longer survive as static documents. They must be fluid.
strategies that respond and adapt to change.”

- Benjamin C. Kou
  Associate and Director of Design, Stantec, Boston, Mass.

“The current trends in the design and planning of higher education facilities revolve around the technological advancements in classrooms and the evolving pedagogy of educators. The intersection between these areas has benefited from a research-based approach to the design of flexible and dynamic ‘learning environments.’ This term can be used to describe specialized classrooms types such as team-based learning classrooms, as well as informal learning spaces that encompass oversized corridors with seating spaces and touchdown stations. These environments integrate student social life and learning, which increases the attractiveness of campuses to future and current students.

As students need to compete in an increasingly competitive global economy, how they learn is paramount to what they learn. In recent years, educators have begun to emphasize a wider array of instruction methods, including collaborative and project-based learning, smaller group discussions, and distance learning. These changes in the educational process have resulted in a need for classroom designs, which emphasize flexibility and multimedia support. Innovations in this area include mobile furniture systems with integrated power and data, lab spaces that can be combined through folding wall systems, and rooms with video capture whiteboards. Classroom layouts must not only flexibly accommodate both team-based and traditional learning, but they must also allow students and educators access to information through Wi-Fi, laptops and tablets.”

- Raimund McClain AIA, NCARB, LEED AP
  Director of Projects, Van H. Gilbert Architect PC, Albuquerque, N.M.

“Our firm is observing that the bar for sustainability in projects is being set continually higher. The owner realizes that the project represents an opportunity to make a long-lasting positive impact. This is happening in large part because owners are seeing the economic advantages of green buildings not only in terms of energy efficiency but also in terms of greater degrees of student satisfaction, longer lasting buildings and reduced maintenance costs. We are observing that project design processes are most successful when they strategize to integrate project requirements and all stakeholders to develop collaborative goals that are unique to each project. These unique project goals come about as a result of greater recognition that learning environments are defined by the relationships and processes which they set into motion, not by the walls, floors and ceilings that may surround them. Similarly, during project delivery, a project may develop a highly specific combination of strategies, which involve a number of diverse stakeholders converging on an issue such as the reduction of water use. The stakeholder group may represent such interconnected areas as: site and roof drainage, rainwater harvesting, water storage, water efficient plumbing fixtures, landscaping and irrigation. The end emphasis is not on the work itself but rather on the successful execution of goals, which create collaborative solutions at a meta-disciplinary level.”

- David O’Shea
  Project Architect/Construction Administrator, LS3P Associates, Raleigh, N.C.

O’Shea has been with LS3P for four years where his primary role has been overseeing projects through design phase into construction documents, with special attention to assisting project teams on specialty design detailing and constructability issues, as well as taking these jobs into the field as primary construction administrator. While at LS3P, he has worked on several high-profile projects with University of North Carolina at Chapel Hill, University of North Carolina at Pembroke, Court of Appeals Renovation project, Wake County High School and, currently, North Carolina State University, Centennial Student Housing.

“What we talk about and hear, and what we will continue to talk about, is having projects with real budgets, getting owners to buy-in to the end product, and getting real estimates so when we are going along our path to deliver the project — we know we can meet it. As architects we would like to see our end product match what our vision was at the beginning.”

O’Shea enjoyed hearing his peers’ experiences with various building methods and noted he feels frustrated that money issues can lead to sacrifices of design aesthetics.

- Tania S. Salgado, AIA, LEED AP BD+C
  Design Principal, RNL, Denver

“There are many trends in planning and designing for today’s higher educational facilities. Four hot topics I hear often are technology, classroom design, change management and sustainability.

Allocating money for technology is a challenge for colleges and universities. In attempts to finding new means to teach and connect to our students, we design into new spaces the latest and most innovative technologies. Learning new technology becomes a barrier, so ease of use in adaptable systems that are plug and play, must be interactive and intuitive. Think multi use technology, equipment, and software instead of single-use/purpose.

“Classroom planning is often based on standards rather than on need. We understand that learning spaces must be flexible, yet not so flexible that it cannot be customized. Change management includes identifying student needs and optimal educational spaces to better learning success. Solutions include reallocating space by identifying misuse of space and optimizing space in addition to designing new classrooms optimally. Success is evaluated and defined based on financial, environmental and social impacts. Change occurs when the university leadership is in support and drives for change.”

- Michael Thrailkill, AIA, CSI, LEED AP BD+C
  Associate/Owner, Yost Grube Hall Architecture, Portland, Ore.

Thrailkill is a project manager and specifier with public and private education projects in the United States and abroad. He has been involved in all phases of design and construction and heads the YGH cost control and specifications department. As a team member, he values clear lines of communication and timely response to client demands and project developments. His experience at facilitating and maintaining construction progress has been proven on difficult projects.

He was very interested in the interaction of building systems and mentioned his time working with a sophisticated contractor whose versatility and experience helped the design team explore how a façade system could be optimally balanced with interacting systems for positive lifecycle assessment.