

ROUNDTABLE REPORT

CAMPUS PLANNING & DESIGN: THE ACADEMIC LANDSCAPE

A REPORT ON LANDSCAPE FORMS LEADERS ROUNDTABLE
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BY GAIL GREET HANNAH

Students are not interested in hierarchy. They're interested in information and learning. Our job as planners and designers and landscape architects is to help provide the structure for that to happen. A lot of learning is social and a lot of that social learning happens out in the plazas and other outdoor spaces on campus where people meet. We shouldn't underestimate the power of landscape architecture to help define these spaces.

Peter Hedlund, Principal, Sasaki Associates

In early February Landscape Forms brought together twelve leading design professionals to discuss current issues and approaches in campus planning and design. The group included architects and landscape architects representing seven major academic institutions and five firms doing important work in the field. The meeting at Arizona State University in Phoenix was hosted by Landscape Forms President, Richard Heriford, and moderated by Byron Sampson, ASU Landscape Architect/Faculty Associate.

Guests were asked to consider five key issues driving current campus master planning and design:

Sustainability — addressing energy use, resource conservation, maintenance, and adaption of structure and spaces over time.

Preservation — renovating and repurposing existing structures and spaces including “places of memory.”

Growth — accommodating institutional growth and high-cost, space intensive research facilities.

Technology — providing infrastructure for new learning and innovation made possible by universal access.

Collaborative Learning — creating spaces that support collaboration within and between disciplines, among individuals and across diverse populations on campus.

Moderator Byron Sampson defined the challenge: campuses and colleges, he said, are under pressure, operationally and in terms of planning and design development. Funding is down, expectations are up, and the five big issues posed for



discussion present major challenges for the design professionals in the room. He asked, “how are we as the collective consciousness of the universities engaging with these issues and moving forward?” Discussion quickly revealed that the issues are interrelated and interdependent, forming a web in which strategies and solutions interweave and overlap. The conversation started with sustainability.

You can do what you are quote/unquote “supposed to do”, but the heart of sustainability is what is really going to make the biggest difference and what you should be doing from a long-term institutional perspective.

**Mark Hough, Campus Landscape Architect,
Duke University**

All of the institutions and firms represented at the table are addressing environmental sustainability in one way or another. Some, like NBBJ in Columbus, Ohio have joined the Architecture 2030 Challenge for carbon-neutral buildings and made commitments for targeted energy and emissions reductions. Others, including Stanford and Emory Universities, have not joined a protocol but have made serious commitments on their own. Cathy Blake, Associate Director of Campus

Planning and Design at Stanford University, reported that Stanford is abandoning its co-generation plant and embarking on a three-year program to replace it with a new hot-water exchange system that will cost hundreds of millions of dollars and effect a 100% transformation in energy delivery. James Johnson, Landscape Architect and Project Manager, Campus Services at Emory, reported that his university has developed its own climate action plan that includes a 50% reduction in campus greenhouse gas emissions and a 25% reduction in energy use by 2015 over 2000 numbers. Byron Sampson said ASU has established a mandate to be a carbon-neutral, zero-waste campus by 2020. Reducing auto use on campus will be addressed “by making parking very, very, very expensive” and by building on the strong alternate transportation system that his urban campus already has in place. (ASU has about 17,500 cyclists on its campus daily.) Mark Hough explained that Duke is a 2030 member and described the challenge for his campus. “The low-hanging fruit are things you can do to facilities and building systems. That’s a matter of investment,” he said. “The big challenge for us is transportation: how to get cars off campus because that would make the biggest difference. But you can’t solve this with just money. You have to change the culture. You can do what you are quote/unquote “supposed to do” but the heart of sustainability is what is really going to make the biggest difference and what you should be doing from a long-term institutional perspective”



Sustainability involves taking a hard look at utilization. Our master plans now have a lot of renovation, rehabilitation or reuse to make the most of existing facilities.

Peter Hedlund, Principal, Sasaki Associates

Hedlund noted that many campuses are faced with buildings from the 50s and 60s that have inefficient energy systems and aesthetic problems, but in some cases have good bones. The challenge, he said, is how to make them work. The common practice of using classrooms for just four or five hours a day, often for less than five days a week, coupled with what he calls “the entrenched feeling in academia that everybody is entitled to their own office,” have resulted in underutilization of space. Sasaki is looking at ways to retrofit buildings to bring space use in line with new ways of learning and working. Faculty is being transitioned into the space-saving shared office environments now common in the business world. Academic disciplines are sharing spaces and students are working in flexible labs and other alternatives to the traditional classroom. Mark Hough pointed out that while 10 years ago sustainability and preservation were two very different things and sustainable buildings were invariably

new construction, today they share the same objectives and the synergy between them is driving planning and design. Energy costs as well as the financial costs of demolition and new construction are being factored into decision-making. Energy consultants are assigning metrics to the resources it takes to operate buildings and making the argument for better patterns of use.

One of the most critical things you can do in the master plan in terms of sustainability is to define and protect the stuff that is really vulnerable to development. The buffers. The entrances. The grand passage ways. It’s not about how much water you use, it’s the character of the heart of the place.

Cathy Blake, Associate Director of Campus Planning and Design, Stanford University

Landscape is a major factor in defining the campus experience. It embodies cultural as well as aesthetic values.



Designers and planners are challenged with identifying the spaces that embody the essence of the campus, the “places of memory” that create emotional ties, and to preserve them for future generations. Participants noted that these are not always the most densely occupied spaces. They may be the first spaces people see as they approach the campus, or the spaces they walk through on their way to somewhere else. They are often ceremonial and establish a hierarchy for campus spaces. But the character of a campus is also defined by many less visible, and also highly valued spaces. Steve Troost, Campus Planner at Michigan State University, called these the “eddies” – “places where people can go to reflect and find their own time.” Cathy Blake noted that at Stanford the “image” places were iconic but the quiet, contemplative spaces also mattered. As campuses grow, a greater variety of outdoor spaces are emerging: small and large, hard and soft, occasionally formal, but more often informal and designed to support casual and collaborative engagement. ASU is reimagining its huge campus as a series of malls or promenades connecting many small outdoor rooms along their length. What is emerging, Byron Sampson says, is a feeling of the campus in a park.

Preservation of existing buildings has become part of a wider approach to resource management that includes preserving open space. The new UC-Merced campus was offered as a cautionary example. Built on prime agricultural land

in a fairly remote location it was developed according to sustainable best practices. But, Steve Troost asked, “If you think about conservation of land resources, was that the best move, even if it is a model of sustainable campus design? Perhaps it would have been better to invest in existing facilities.” Cathy Blake countered that buildings may in some cases be repurposed to preserve land but questioned what happens in cases where existing buildings no longer support academic mission. “Some institutions are constructing new buildings not because they’re out of space but because the old ones don’t work the way they want,” she said. On some campuses new facilities of greater height and density are being constructed on former footprints to better support emerging pedagogies and the need for growth. Blake stated, “It takes energy to build but if you are putting three times the density on the same piece of land and better supporting the work of the institution, there’s something in that.”

Kim Way, Principal/Urban Design and Planning at NBBJ, reported that his firm is seeing more colleges and universities restoring natural environments that had been altered by development. He cited work at Ohio State University, where removing dams along the river that runs through the campus is restoring the original character of the place and changing perceptions of the campus environment. At Stanford the dense natural plantings that once delineated the campus from its environs are being restored to their former prominence.



ASU has taken a huge step to replace irrigation-intensive landscaping throughout its campus with drought-resistant species native to the environment, replacing once-flooded green lawns with a variety of local plants, punctuating small plazas with water-circulating fountains, and greatly reducing water usage.

A great many universities and colleges are ramping up their efforts to gain research dollars by building research facilities. And I appreciate the argument that at some point they may dilute their uniqueness or identity. But I say, let's bring it on. The future of this country rises and falls on encouraging research at all levels.

**Mary Jukuri, Principal, SmithGroupJJR,
Ann Arbor**

Growth at colleges and universities is research driven, technology intensive, costly and consumes space. While there is serious discussion about the universal desirability

and appropriateness of every university establishing competitive research programs and facilities, research facilities attract top researchers, bringing in grants and research dollars. As state education funding is dramatically reduced, and in some cases tied to performance-based metrics such as preparation for work, the pressure is on, especially in the medical and technology sectors. Public/private partnerships are stepping into the breach, sometimes in very creative ways. Randy Sorensen, Design Principal at JACOBS in Dallas, reported on the partnership between Babson College, a liberal arts school outside of Boston with lagging growth and available underdeveloped land, and the Olin Foundation to create the Franklin Olin College of Engineering on a joint campus. "Joining them together on the same campus has changed the whole dynamic of the two universities by creating an educational partnership using the same facilities," he said. "Liberal arts students now have access to the sciences and engineers have access to the liberal arts. It has become a system, a real lifecycle change, with great benefits for both parties. An important part of the joint campus concept is that it has resulted in a more sustainable campus environment." Michigan State has established a series of "smart growth principles" to direct development that include compact campus composition, a variety of transportation choices, walkable neighborhoods, preservation of open space and mixed land use. Communities and colleges are partnering, using community development funds



to rehabilitate existing buildings in downtown areas, turning them into fine arts facilities and blurring the boundaries between town and gown. And, as Kim Way pointed out, the growth of universities and colleges has implications for regional as well as local economic growth. The academic institution is a vital part of the larger cultural and economic sphere.

In our Institute for Discovery we're bringing together people from liberal arts, engineering, computer science and other areas to solve problems. It's very free, open, and flexible. And it's going to last 100 years because it can change as our needs change. I think it's how we are going to be building all of our new buildings.

Gary Brown, Director, Campus Planning & Landscape Architecture, University of Wisconsin, Madison

The model that Brown describes is generating attention. Bringing students, faculty and researchers together across disciplines for focused problem solving builds in both col-

laborative process and more fluid and flexible organizational structure. At Michigan State the established model of the researcher with secured funding and dedicated space is being transformed. A new multidisciplinary research building with flexible laboratories has been constructed on campus and a new ethos rules. No one permanently owns or controls a space. Steve Troost explained, "We're saying, Mr. Researcher, don't get too comfortable. You have to keep innovating. Keep finding new ways to collaborate." The next challenge for the university, he said, is to go back and retro-commission some of its existing buildings to fit the new approach.

At ASU we are doing things that allow students to engage on the campus in a different way. Instead of fixed furniture, we're bringing in movable furniture so people can drag their chairs over and have a conversation. The dynamic of the campus is changing.

Byron Sampson, Landscape Architect/Faculty Associate, Arizona State University



ASU is not alone in its embrace of movable furniture. Across the country colleges and universities are recognizing the relationship between collaboration and the ability to adjust the physical environment. “The most successful spaces on campus are the ones that are flexible, that allow people to interact in a collaborative fashion, or to find personal space to reflect or study within a common setting,” Randy Sorensen declared. Students take this ability as a given. Furniture that’s not tied down sometimes walks away. More often it doesn’t. James Johnson explained that at Emory, specific location mattered. In an area with open access, new Adirondack chairs quickly disappeared. In a more enclosed library plaza, students unbolted new chairs from their moorings, but just moved them around. The University of Wisconsin has a unique problem. Its iconic Memorial Union Terrace chairs have become popular as souvenirs. Gary Brown of Wisconsin suggested that his professional colleagues choose “totally generic” movable seating. Campus planners and designers have new incentive to create collaborative spaces but that’s no guarantee of success. Mary Jukuri recalled her own former work with Project for Public Spaces in New York, an organization known for its methodical analysis of social behavior in public spaces, and an important insight that she took from it. “We really have to observe the minutiae of how people use space and how they use furniture if we are going to design successful places.”



You have to change behavior and change the culture. In the design and planning process you engage and educate people. One of the points of higher education is to prepare future leaders, so teasing through these tough battles when budgets are tight can say something to young people.

**Luanne Greene, Principal, Director,
Campus Planning Studio, Ayers Saint Gross Architects**

Removing cars from campus, increasing density, reducing carbon footprint, focusing less on iconic architecture and more on buildings that meet the mission, reducing private space and increasing shared space, allowing people to move the furniture around, adopting landscaping practices based on local ecology rather than universal idealized models – all require cultural change. But students are engaged in thinking about sustainability, invested in new ways of studying and working, and open to new ideas. They can be enlisted in the challenge. Creating the campus for the 21st century can be a teaching opportunity.

