



FEATURE ARTICLE

Shaping Community

Re-creating Connectivity on Campus through Student Life

by Matthew Herman, Robert (Bob) Thomas, and Mario Violich

The concept of a campus hub for student life necessitates an understanding of the student center complex as complementary to the larger educational ecosystem.

IN 2011, the Association of College Unions International joined the Society for College and University Planning in organizing an interdisciplinary summit to examine the role of a campus's physical environment in cultivating community, learning, and engagement (Rullman and van den Kieboom 2012). Envisioned as a think tank, the summit brought together architects, planners, administrators, consultants, students, and faculty to consider a fundamental challenge facing colleges and universities: Although a large body of research has established a correlation between students' sense of community, level of engagement, learning, and graduation rates, barriers to innovative responses in facilities design persist.

As a focal point of student life, the student center typology is central to this conversation. With their open plans, flexible spaces, and modern amenities, student centers built over the last two decades bear little resemblance to their often imposing concrete predecessors from the 1960s and '70s. However, the pace of ongoing pedagogical, social, and technological change—such as the proliferation of web-based learning, an increase in non-traditional students (e.g., commuters, parents), the ongoing shift to collaborative learning, and escalating competition for students—drives the demand for innovative approaches to the design of student centers.

The findings generated by the summit emphasized the importance of flexible environments that allow for a sense

of individual ownership and cited siloed thinking—both in terms of organizational structures and building typologies—as a key barrier. Just as learning has become a more blended activity that happens both within and outside the classroom, the student center and its counterpart, the library, are viewed as hubs within a continuum of environments shaping student success.

The student center and library have been converging for some time now as student centers integrate learning environments and libraries make room for group study areas and cafés, mimicking the trend of non-siloed spaces in commercial office workplaces. Re-envisioning student centers as flexible, hybrid environments for learning and recreation that are connected with and complement a network of student resources leverages campus facilities more fully.

DIFFERENT CONTEXTS, COMMON THEMES

This article discusses three student center projects to explore how different physical and social contexts inform the role student centers play in shaping student life and campus identity. Although the institutions and their goals are quite varied—a leading university seeking to establish a new hub for student life, a historically Black college repositioning within an increasingly competitive market, and a growing community college campus—some common themes emerged:

- » **A NEW ACADEMIC TYPOLOGY.** In each of these projects, it was crucial to understand the needs of current students in order to create the optimal student center. Traditional student unions no longer fit the needs of the existing student body. Technology has changed the way students study, allowing for flexibility of location and increasing the demand for a more social setting. Additionally, pedagogic methodologies have changed to focus on the practical outside of class time. Together these shifts are driving the need for varied, flexible settings that can accommodate a spectrum of learning and social activities.
- » **DIVERSITY AND INCLUSIVENESS.** Creating a place where students can experience the full breadth of the institution's community was another common priority; this is a goal supported by research (National Survey of Student Engagement 2011) that links exposure to diverse cultures to a well-rounded education that prepares students to work effectively in their careers. Each of these projects includes a multicultural resource center and open-plan office space for student organizations.
- » **CONNECTING BEYOND THE BUILDING.** As the boundaries of traditional campus building typologies continue to blur, the student center becomes part of a continuum or ecosystem of environments shaping the student experience. The following profiles examine design strategies that extend the dynamism of hybrid programs to the public realm to create a hub that complements and connects with other facilities through programming and placemaking as well as technology.

LOWER SPOUL PLAZA REDEVELOPMENT PROJECT, UNIVERSITY OF CALIFORNIA, BERKELEY

At the University of California, Berkeley, updating an outdated and underutilized student union presented the

opportunity to rethink an entire complex of buildings and public space and its connection to the campus and surrounding community. Built in 1961, the Martin Luther King Jr. Student Union frames a prominent campus gateway and an important site in the campus's civil rights legacy, Sproul Plaza. The union also was intended as a bridge to the expansive Lower Sproul Plaza, which has struggled to establish a sense of place due to its scale as well as its isolation from Upper Sproul Plaza and Bancroft Way, the active city street just to the south.

Recently completed, the \$223 million Lower Sproul Redevelopment Project seeks to create a student center complex designed to meet the needs of today's student body—a group that is vastly more diverse than when the union was first built—and establish Lower Sproul Plaza as an active 24/7 hub of student life. The project comprises a new multiuse building for student organizations (replacing an existing facility), the renovation and expansion of the student union, an improved student center, and a new plaza wired for a range of uses. Additionally, the project opens up key connections to the campus and Bancroft Way, which provides access to downtown Berkeley (figures 1 and 2).

Figure 1 **Lower Sproul Redevelopment Project: Aerial View**



Image courtesy of Moore Ruble Yudell Architects & Planners.

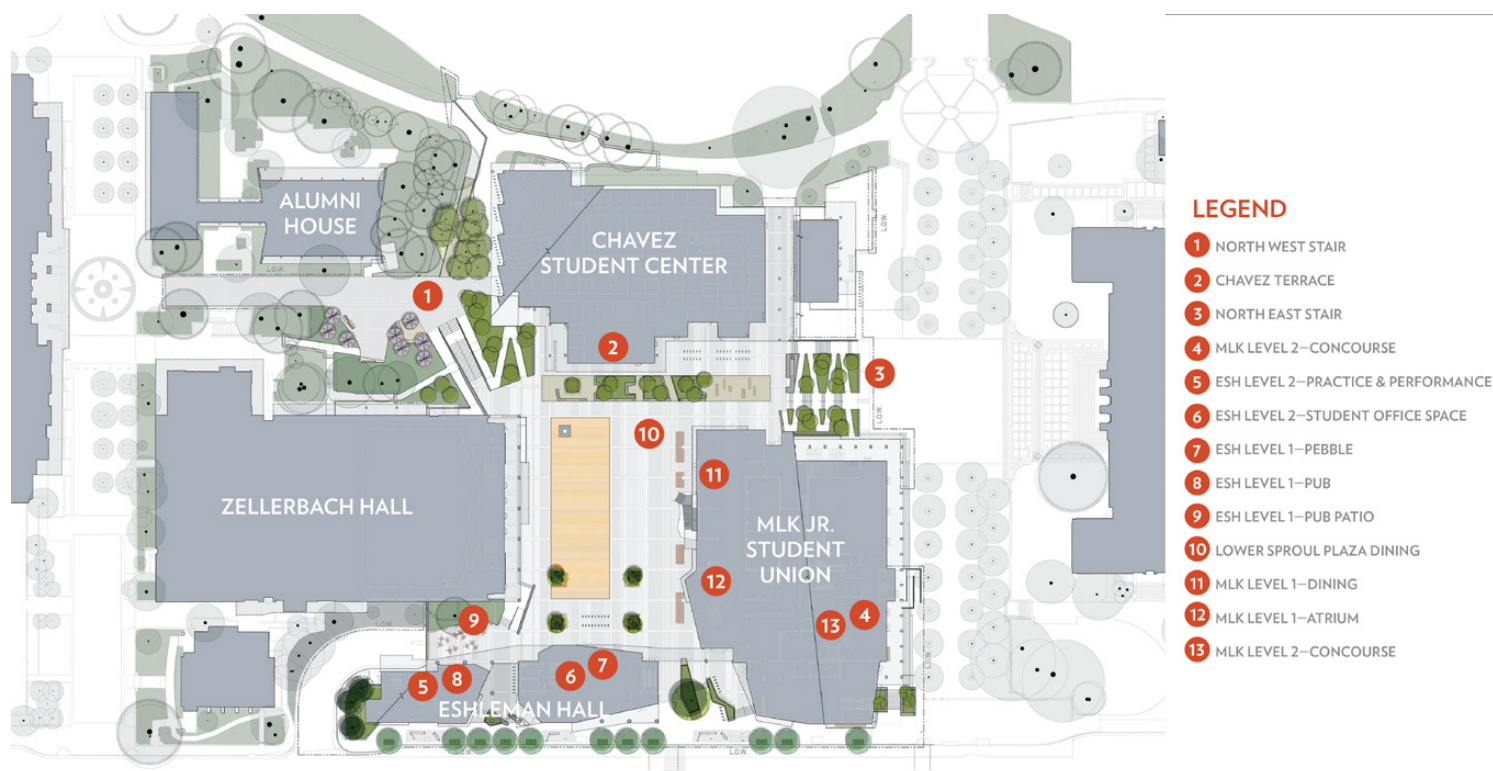
Figure 2 **Lower Sproul Redevelopment Project Plan**

Image courtesy of Moore Ruble Yudell Architects & Planners.

A PLACE FOR TODAY'S STUDENTS

The 1960s' complex was designed for a different era of culture and student need. The challenge and opportunity presented by the Lower Sproul Redevelopment Project meant looking beyond familiar programmatic elements, such as food services or recreation rooms, to a new model that provides much more than social amenities. The university envisioned the new student union as a place where life outside the classroom would unfold. In addition to social activities, the new center would support "learning by doing," the cocurricular work that complements classroom-based learning, such as student-led initiatives, practices, and performances.

At the same time, fewer UC Berkeley students fit the traditional profile of a higher education student, one fresh from high school and living on campus. Students are more diverse, culturally and otherwise, than ever, a trend that is expected to continue as institutions expand the recruitment

of foreign students. Today's students are also increasingly older, more likely to have children of their own, and commuting in growing numbers. The new complex needed to consider this new student demographic while prioritizing aspirations relative to the program budget.

PRIORITIZING PROGRAMMATIC ASPIRATIONS

To better understand and prioritize the diversity of needs and interests, the project team applied new methodologies for building consensus. One tool was a series of "eco-charrettes." Unlike user workshops that form consensus around the needs of specific constituent groups, the eco-charrette focuses on environmental initiatives and innovation and how they affect everyone. With representatives of all stakeholders present, the eco-charrette addressed issues such as water conservation, which led to the idea of a rain garden that will filter storm water from the roof and other greywater systems, and energy conservation, which led to implementing a passive

ventilation strategy for the new Eshleman Hall. Conventional workshops were also conducted, but the eco-charrette provided a wider forum to prioritize aspirations common to all stakeholders.

Another tool, the “program performance analysis,” helped sustain the focus on aspirations for the new student union complex as the project progressed. As a project evolves technically, user needs and project goals identified during the programming phase are reconciled with budget constraints, and too often the project’s aspirations get lost in translation. Starting halfway through the design development phase, the program performance analysis summarizes the performance attributes of every space within the project scope. This allows the administration, stakeholders, and project team to evaluate whether project goals and aspirations are being met. For example, the reviewers could look at a summary of the spaces associated with the plaza and see the power outlets designed into planters that meet the aspirations of improved outdoor performance space and student connectivity. This process brought the design aspirations of the project in line with the technical grit of the project.

This process also facilitated consensus building throughout the life of the project by providing a historical perspective as decisions were made. This was especially apparent regarding the project’s sustainability factors. The new building, new Eshleman Hall, is 50 percent passively ventilated, a performance goal that might have fallen away during “value engineering” had it not been explicitly tied to the project aspirations and accounted for in the program performance analysis from programming to documentation to construction.

RENOVATE OR REPLACE?

Beyond those decisions about the programmatic makeup of the project, there were further decisions regarding the existing facilities on and around the plaza. There is always an impulse to build new, especially when proposing a new

programmatic model. However, the eco-charrettes revealed a resounding consensus that wherever possible it would be fiscally and sustainably more responsible to save and repurpose the existing facilities.

Although the Martin Luther King Jr. Student Union has not received any formal designation as a historic landmark, the university took into consideration the building’s cultural significance. The existing student union also had large multipurpose spaces—a ballroom, conference rooms, and a basement level—that could accommodate new uses while retaining the building’s original architectural presence (figure 3). A new addition with expansive windows and an outdoor terrace will introduce restaurants, a “campus living room,” and meeting space on the plaza side (figure 4). The renovation also includes connecting the union to the rest of the plaza through an open-air bridge to the adjacent new Eshleman Hall (figure 5).

The original Eshleman Hall, which housed student organizations, was in need of costly seismic upgrades and was programmatically inflexible. At eight stories tall, it also cast a long shadow on the plaza to the north. The decision was made to replace it with a shorter (five stories) and longer layout that allowed for increased square footage and optimized, flexible facilities (figures 6 and 7). The design of both the renovated Student Union and new Eshleman Hall features transparency

Figure 3 **Renovated Martin Luther King Jr. Student Union: Street View**



Image courtesy of Moore Ruble Yudell Architects & Planners.

Figure 4 **Renovated Martin Luther King Jr. Student Union: Plaza View**



Image courtesy of Moore Ruble Yudell Architects & Planners.

Figure 5 **Open-Air Bridge Connecting the Student Union to New Eshleman Hall**



Image courtesy of Moore Ruble Yudell Architects & Planners.

Figure 6 **New Eshleman Hall: Street View**



Image courtesy of Moore Ruble Yudell Architects & Planners.

Figure 7 **New Eshleman Hall: Space Plan**

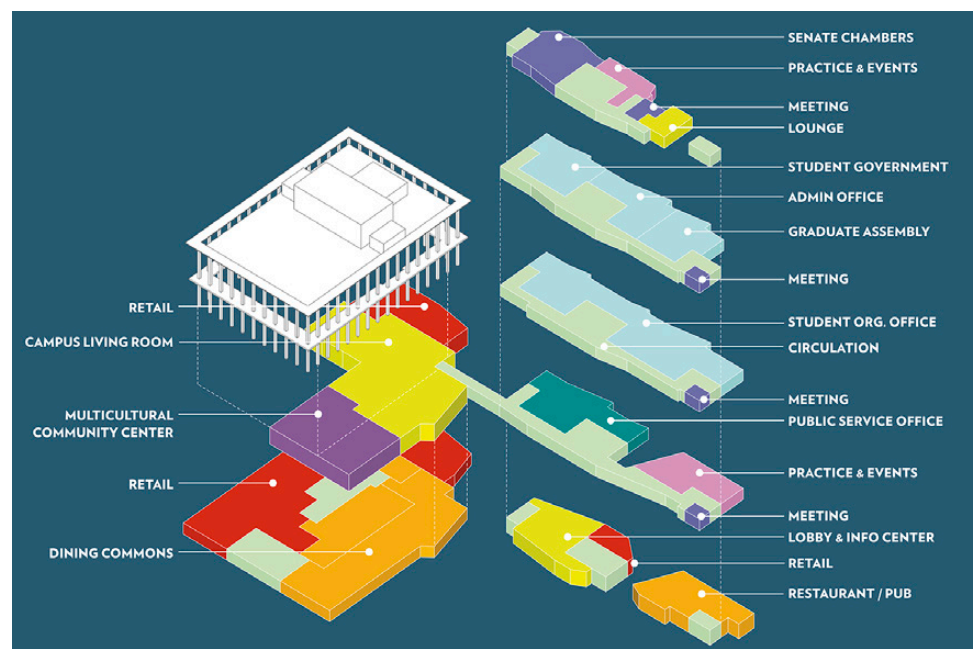


Image courtesy of Moore Ruble Yudell Architects & Planners.

and permeability, enhancing the connection and access to the plaza and street. On the plaza's north edge, the César E. Chávez Student Center will undergo minor renovations to mirror the improved transparency of the other buildings.

MORE THAN A PLAZA

Integrating the buildings and plaza into a unified experience was essential to the project's aspiration of transforming this prominently located complex into a 24/7 hub of student life. The team found that students were using the plaza for a variety of activities, in particular as a rehearsal space and stage for the campus's numerous student-led performance groups. Rather than focus on programming, the design centered on making this activity part of the pulse and flow of the complex and campus.

A lack of basic infrastructure was a key issue. The new plaza will provide a highly flexible plug-and-play performance venue where students can quickly set up lighting and sound systems, helping to telegraph their activity. Ubiquitous Wi-Fi, new seating, a rain garden, and improved daylight (thanks to the lower height of the new Eshleman Hall) will facilitate utilization of the plaza for new kinds of individual and group activity.

Given the transparency of the buildings surrounding the plaza, the "rings of activity" within the buildings and on the plaza become mutually reinforcing. Students will be drawn outside to see a performance and feel welcome to enter and use the buildings.

COMPLEMENTARY USES

The concept of a campus hub for student life necessitates an understanding of the student center complex as complementary to the larger educational ecosystem. Said ecosystem extends to off-campus amenities, such as cafés and religious institutions, as well as to on-campus facilities like the main library, student housing, and student lounges within

academic buildings. Additionally, such a complex needs to take a holistic perspective on student lifestyles, considering factors such as schedules, culture, and habits.

The university was especially interested in the potential retail components of the project, which are the lifeblood of such facilities. Retail consultants analyzed market trends in and around the Berkeley area to identify critical gaps that retail in the student center could fill. IT support, for example, was not available in the immediate area, and there was no late-night food service to accommodate students who work during the day and use the complex in the evenings.

The issue of creating space for the growing number of students with different religious backgrounds also arose. During the programming process, the Muslim Student Association advocated for incorporating space for worship by mapping existing places of worship within the campus vicinity. The comparative lack of mosques in the area made its case, which made accommodating a space for prayer and foot-washing stations a priority in the design of the project.

Just as the boundaries of learning environments are blurring, the idea of the student union becomes less about one building and more about fitting into and enhancing the educational ecosystem that supports and nurtures the current demographic of students both on the campus grounds and into the city.

STUDENT CENTER, NORTH CAROLINA AGRICULTURAL & TECHNICAL STATE UNIVERSITY, GREENSBORO

Like many Historically Black Colleges and Universities (HBCUs), North Carolina Agricultural & Technical State University (NC A&T) is adapting its mission to reposition its 123-year-old campus within a changing institutional landscape. NC A&T is seeking to grow its enrollment while facing increasing competition from non-HBCU institutions, including the University of North Carolina's flagship Chapel

Hill campus. Originally a commuter school, NC A&T also aspires to build its resident student base. Among other initiatives, the university's strategic plan identified a need for an updated student union to bolster recruitment and retention efforts.

READING BETWEEN THE NUMBERS

The strategic plan called for a renovation of and small addition to the existing Memorial Student Union, built in 1969. As programming got underway, however, it became clear that the renovated union would not accommodate the flexible, hybrid spaces that students were seeking. While benchmarking existing facilities can be helpful in estimating the amount of space a program may require, the recent rapid evolution of student centers makes it harder to reconcile user feedback with those benchmarks.

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While the architects gathered feedback through a variety of forums—including social media, town halls, stakeholder meetings, surveys, and open houses—intercept interviews proved to be the most informative method despite the comparatively small sample size involved. In these one-on-one interviews, students, most of whom had not participated in other forums, provided more frank responses about their study habits and experiences with the existing student union.

These interviews, along with other user engagement efforts reaching over 1,500 students, contributed to a clearer understanding of program needs. Ultimately, the decision was made to replace the existing student union with an entirely new facility. Following are the key findings that informed the design:

- » Students prefer to study in more social settings (e.g., cafés, lounges) versus the traditional library.
- » The demand for collective social spaces was far greater than estimated.
- » Students want flexible and adaptable spaces of varying scales and the ability to reconfigure furnishings to suit different needs.
- » The popularity of gaming as a social/recreational activity also greatly exceeded space projections.

The resulting design for the new center compiles a diverse program of student lounges, study and meeting spaces, food venues, a convenience store, a student bookstore, a post office, a ballroom, multipurpose rooms, and a range of student organization suites and administrative support services into a dynamic hub that will reinvigorate the physical and symbolic core of NC A&T's campus.

In contrast to the union's rigidly defined and controlled spaces, the new Student Center organizes a wide variety of spaces—small to large, active to quiet—in a gradient that transitions from recreational to academic as one moves up through the open central atrium (figure 8). This gradient of varied spaces extends outward to the landscape, recognizing that creating strong connections with the surrounding campus is critical to the new center's success as a campus hub (figure 9).

Figure 8 NC AT&T Student Center: Atrium

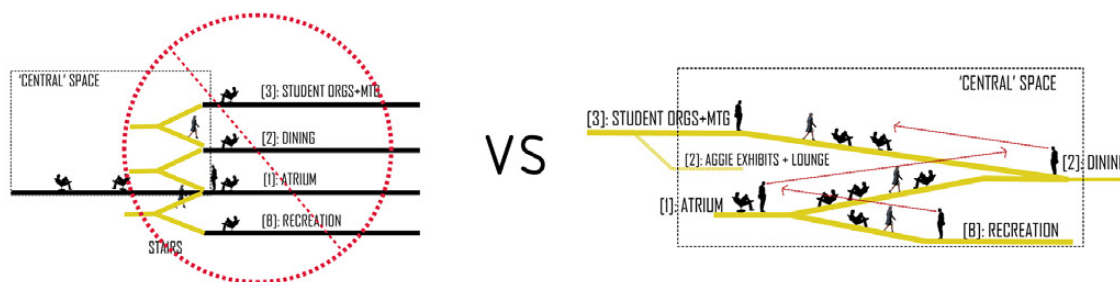


Image courtesy of VINES Architecture.

Figure 9 NC AT&T Student Center: South Elevation



Image courtesy of VINES Architecture.

Figure 10 NC AT&T Campus Site Plan

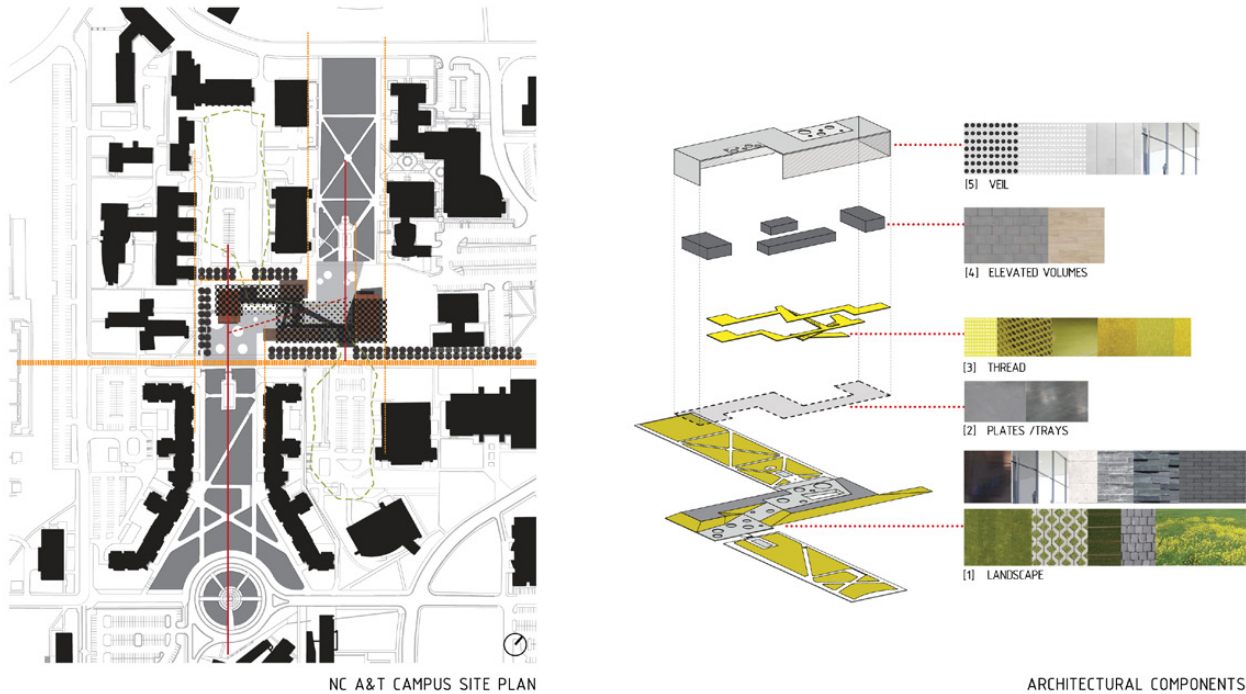


Image courtesy of VINES Architecture.

COMMON SPACE FOR STUDENT LIFE

Envisioning the new Student Center as a connector rather than a discrete building opened up the possibility of addressing some of the campus's long-standing challenges. The campus is organized around two poorly linked off-set quads with undergraduate academic buildings and the main library and dining hall located on opposing corners, a configuration that generates a strong diagonal flow of people through the campus (figure 10).

While the new Student Center is strategically sited between the quads to capture this movement, improving the connection between the two greens also became a priority that significantly informed the design. The project served as a catalyst for reimagining the entire streetscape and the public spaces connecting the campus, leading to the development of a significant plaza at the end of the main green that creates places for performances and other activities and improves the primary circulation path through campus. The center responds to the greens and connects them by organizing

program elements into off-set bars running east to west. Larger components—the ballroom, marketplace dining, student organization suites, and study rooms—are lifted above the ground level, giving the building a formal presence on both quads while allowing the landscape and people to flow through (figure 11).

Figure 11 NC AT&T Student Center: Ballroom and Plaza from Existing Green



Image courtesy of VINES Architecture.

BUILDING A CAMPUS IDENTITY

While the Student Center's landscape and architecture signal a new chapter for NC A&T, the design also works to strengthen the connection to the university's history and traditions. An Aggie-gold "thread" integrated with the center's circulation weaves through the building (figure 12). Composed of seating areas, interior monuments, and interactive kiosks (and an app) featuring stories and figures from NC A&T's past, the thread links the center's forward-looking environments to the university's legacy.

By allowing a deep understanding of NC A&T's strategic goals, campus plan, and current and future student needs to drive the design, the vision for the Student Center expanded well beyond traditional interpretations of the building typology. The resulting project transforms the NC A&T campus and charts a new course for its future development.

STUDENT UNION, PORTLAND COMMUNITY COLLEGE, CASCADE CAMPUS, PORTLAND, OREGON

With approximately 90,000 students, Portland Community College (PCC) is Oregon's largest postsecondary institution. PCC is investing nearly \$58 million of a \$374 million capital bond to expand and upgrade the 23,000-student Cascade

Campus, located in urban northeast Portland. The new Student Union, which opened in January 2015, is PCC's first true student union. At just 36,000 square feet, the new union is small in scale compared to the other examples discussed in this article, but shares common goals. By providing a new home for student activities that allows PCC's commuter student body to participate in informal learning, collaboration, and socializing, the Student Union enhances student life, fosters learning, and strengthens campus identity. Designed and built concurrently with a new academic building, the new Student Union faced equally complex challenges.

SMART GROWTH

The proposal for a new stand-alone student center emerged from a lengthy planning process involving intensive engagement with college stakeholders as well as residents and business owners from the surrounding neighborhood. Previously, the student center was co-located with classrooms and the library. While this building was centrally located in the middle of the campus mall, the student center occupied a basement space that was both too small to support its programming and lacked visibility.

The planning process led by Portland-based architecture firm Hacker evaluated options either for renovating the existing building or building new, depending on a variety of other considerations. Key among these was the challenge of accommodating growing enrollments while addressing neighborhood concerns about traffic and parking. The solution began with involving the community in the planning process in a truly collaborative way. Rather than build a multilevel parking garage, the group agreed to build a new union, academic building, and plaza over a small below-grade parking garage, an approach that offered numerous advantages for both the campus and the community (figure 13). A second new plaza replaced the old building in which the student center was located, opening up the heart of the mall. These public plazas unify the campus and provide enhanced open space for the larger community. Finally, locating the

Figure 12 NC AT&T Student Center: Recreation Area with Aggie-Gold "Thread"



Image courtesy of VINES Architecture.

Figure 13 **PCC Cascade Campus Renovation Site Plan**

Image courtesy of Hacker.

new buildings and garage on campus preserved the historical commercial blocks.

A CENTER FOR STUDENT LIFE

The new Student Union and academic building extend the campus mall to the west and establish a new urban edge for the campus while also providing students with a place of retreat and camaraderie. The Student Union's program elements—food retail, student lounge, gaming room, resource centers, student organization suites, and meeting rooms—are organized as intersecting blocks around an internal atrium to create a light-filled environment with views in all directions as well as strong visual connections between floors and out to the plaza. The visual connection was especially important to the student organizations that use the plaza as an extension of their space through sliding glass doors at the ground level (figure 14).

Figure 14 **PCC Cascade Student Union: Exterior View with Plaza**

Image courtesy of Hacker; photo by Jeremy Bittermann.

The Student Union is designed to encourage collaboration and interaction. Dining functions are located on the more public ground level to activate the plaza and the street. In the second-floor lounge, students can choose among a variety of seating arrangements—from computer bars to small meeting tables to lounge seating—or relax with friends in the gaming room (figure 15). Meeting rooms and additional informal seating are found on the third floor where, for the first time, the campus's three main resource centers, serving female, multicultural, and international students, are housed together. PCC's 30 student organizations also share an open-plan office and art room on this level. Across the plaza, Cascade Hall, the new academic building, offers students access to a much-needed child care center and a Center for Careers in Education; the building also houses a resource center for faculty.

The Student Union, Cascade Hall, and the plaza work with the student administration offices and library to activate the campus heart. At the same time, the Student Union's contemporary presence and quality of space redefines PCC Cascade's identity and the on-campus student experience.

OBSERVATIONS

In a modern campus setting where learning happens everywhere—from a casual meeting in a plaza to a 500-

seat lecture hall to a remote screen—the student center's role as a campus hub and connector will continue to grow. The substantial investments made in these projects offer the potential to effect the far-reaching transformation of a campus.

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In comparing the new student center projects at the University of California, Berkeley, North Carolina Agricultural & Technical State University, and Portland Community College, Cascade Campus, the influence of different institutional settings—two year and four year, small and large, commuter and residential—was an area of interest. In fact, the three projects differed mostly in scale rather than in their goals or solutions. Enhancing the campus identity and experience as well as fostering a stronger sense of community and engagement were common refrains.

Following are takeaways for future projects:

» THE CONCEPT OF A LEARNING ECOSYSTEM.

Traditional campus typologies are giving way to hybrid programs of flexible spaces crafted to foster the learning and camaraderie that occurs in informal settings. The projects discussed in this article extend the ecosystem model to the campus as a whole, addressing critical adjacencies on a building scale and optimizing resources on a campus and even community scale. The student center, perhaps more than any other building type, has an inherently pliable program, making it critical within the connected campus. When informed by an understanding of the campus plan, it has the unique potential to reshape the surrounding fabric and strengthen the campus and student experience.

» TRANSCENDING INSTITUTIONAL SILOS. An ecosystem model requires increased dialogue between different entities and an ability to collaborate in forging long-

Figure 15 **PCC Cascade Student Union: Interior Lounge Space**



Image courtesy of Hacker; photo by Jeremy Bittermann.

term plans. To fully leverage capital investments, new or renovated student centers should anticipate future plans for other facilities such as libraries and student housing.

- » THE IMPORTANCE OF PUBLIC SPACE. Within this ecosystem model, the role of place takes on added importance. Of course, many campuses are distinguished by their long-standing traditions of landscape and public space. The emphasis here is on strengthening connections—between library and student center, for example—and extending the opportunities for shared experience into the public realm.
- » FLEXIBILITY EQUALS RESILIENCY. By emphasizing the creation of flexible spaces that are easily reconfigured, this approach also supports adaptability as needs change over time, from day-to-day to long term, provided building systems are planned accordingly. This is especially true with respect to the growing number of wireless devices that can support a wide range of media experiences as well as the changing demographics of the student body.
- » THE LIMITS OF LEARNING FROM THE PAST. Square-foot-per-person and cost-per-square-foot metrics provide a helpful starting point for a project program, but in times of flux, such records of the past are less reliable measures of what is needed today or in the future. Qualitative data gathered through individual and group interviews—including intercept interviews conducted on-site—were crucial to establishing a clear picture of user needs and identifying how complementary program elements might fit together for optimal efficiency.
- » DESIGN MATTERS. Student centers should embody an institution's mission and aspirations. A beautifully designed student center that responds intelligently to user needs sends a powerful message to the campus and surrounding community.

NEXT STEPS

The ecosystem concept implies the idea of ongoing adjustment and balance. With rapid changes in technology and student demographics expected to continue, regular evaluation of design and programming strategies will help capture lessons learned and inform future changes. This argues for more flexible and adaptable solutions, in line with another point made by the 2011 summit on cultivating community: the advantage of less permanent facilities. A demand for still greater flexibility and responsiveness may define the next generation of student centers.

REFERENCES

- National Survey of Student Engagement. 2011. *Fostering Student Engagement Campuswide—Annual Results 2011*. Bloomington, IN: Indiana University Center for Postsecondary Research.
- Rullman, L., and J. van den Kieboom. 2012. Creating Community: Designing Spaces That Make a Difference. *Planning for Higher Education* 41 (1): 178–93.

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MARIO VIOLICH, principal, Moore Ruble Yudell Architects & Planners, has influenced a broad spectrum of projects at Moore Ruble Yudell, including the new Student Union at UC Berkeley. His design approach is rooted in the exploration of the interdisciplinary nature of the design process. An instructor in Landscape Architecture at UCLA Extension since 1993, he has served as a guest critic and lecturer at colleges and universities nationwide and presented at conferences for the American Institute of Architects and Society for College and University Planning.