



INTELLECTUAL CAPITAL

In Cambridge, Massachusetts, the newly opened, Frank O. Gehry-designed Stata Center for Computer, Information, and Intelligence at MIT is part of a \$1 billion construction program aimed at improving the quality of campus life and creating a new sense of community.



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Powerful urban universities are reshaping metropolitan culture and character.

NANCY EGAN AND PAUL NAKAZAWA

Colleges and universities in major cities are becoming increasingly influential in urban development circles. With valuable real estate assets, research-related businesses, endowments significantly augmented by ambitious capital campaigns, and growing student populations, these institutions have the economic and political clout to reshape not only their own campuses but the surrounding communities as well. As the traditional divide between town and gown becomes less apparent, the programs and physical development of colleges and universities have both direct and indirect effects on municipal planning efforts and private development in unprecedented ways that can contribute to the reshaping of metropolitan culture and character.

Ever since the Middle Ages, universities have been powerful institutions that have enjoyed considerable civil and spatial privileges even as they exerted significant influence on other realms of society. The notion of the university as a place apart dedicated to the pure pursuit of knowledge persisted through much of the 20th century. That image has changed in recent decades, however, as the intellectual capital of universities, particularly in the sciences, has become a critical component in global economies driven by high-tech and biotechnology interests.

Today, universities are top-tier players in the creation of "economic superclusters" that bring together the resources of major medical institutions, corporate research and development, the government (often in the form of funding from the National Institutes of Health [NIH]), and venture capital. The emergence of this model has moved schools—especially those with urban campuses—to the front and center in discussions of regional and local economic development and its corollary in infrastructure development.

Effects produced by these developments can be seen in the surrounding communities at a number of levels, from escalation of salaries for professors and researchers, to the increased demand for a limited supply of housing to accommodate students, faculty, employees in the new technology businesses, and residents of the old neighborhoods. There also is pressure on traditional commercial districts near campuses as real estate developers recognize the opportunity to capture this evolving market with speculative and build-to-

In Philadelphia, the Science Center will be housed in an urban technology park (right) that comprises more than 2 million square feet that is expected to act as the synergistic hub of the academic and research institutions in west Philadelphia's University City area. The Gateway building (below) opens to Gateway Plaza, a large outdoor space for informal meetings, dining, and other events.



THE JERDE PARTNERSHIP



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permeability in access and communications that challenge the kind of private decision making that schools have long employed. As the need to expand in order to meet demand generated by an increasingly diversified curriculum and the need for a competitive array of high-quality amenities pushes university administrators to look beyond the confines of their campuses, they often are confronted by community leaders who oppose these expansion plans, even though the local economy may experience significant gains as a result of them. On the one hand, a university can bring vitality to the surrounding community as well as economic benefits in the form of jobs, rents, and retail expenditures on the part of students and faculty. On the other hand, the institutions are able to exercise control over the area's prime real estate. However, in spite of the university's presence in the community, it generally has little control over the behavior of its students living off campus or over other aspects of community life including the delivery of services, infrastructure, and housing. And add to this the fact that the higher-education institutions are largely exempt from property taxes.

The potential for conflict exists not only at the large, technology-rich campuses, but also at urban schools across the country. Boundaries have blurred as businesses seek the innovation and intellectual resources of the university for competitive advantage, and the institutions, in turn, recognize increased political and economic leverage through their affiliations with related businesses. Pragmatic self-interest on both sides has led to a wide range of planning initiatives on and off campus that are redefining social and physical relations. The campus and the community are forging partnerships, some more fragile than others, that are remaking entire urban districts where it is increasingly difficult to tell exactly where the fine line divides the two.

suit laboratories, offices, retail, and housing. These new developments threaten to displace older, less-generative businesses that nonetheless are important contributors to community life.

For their part, colleges and universities are faced with an unprecedented demand for transparency in their transactions and



In the heart of New York City's Astor Place neighborhood, Cooper Union has a multiyear, three-building master plan for the Cooper Square campus (left) that includes a 22-story residential building, a new nine-story, full-block academic facility (below), and a mixed-use, primarily commercial building with space for some Cooper Union uses.

The big-name technology powerhouses have spurred some of the most aggressive development, with loyal donors funding state-of-the-art facilities—often designed by architectural superstars—on university campuses while private companies and the development community have moved with equal vigor to create complementary campuses just outside the gates. Cities like Boston, Cambridge, Philadelphia, and San Francisco have acknowledged the benefits of large concentrations of universities and have worked to encourage these kinds of collaborations.

Cambridge, for example, established a mayor's committee on university/community relationships in 1991 to study the interaction between the community and the educational institutions that play an important role in the city's landscape and economy. The four primary postsecondary educational institutions located in Cambridge—Cambridge College, Harvard University, Lesley University, and the Massachusetts Institute of Technology (MIT)—all participated in discussions that ultimately led to the issuance of a town/gown report. The goal was to improve university/community relations through mutually beneficial activities that include an annual joint review of university and community needs and plans.

At MIT, a \$1 billion construction program designed to improve the quality of campus life and to help create a new sense of community includes the newly opened Stata Center for Computer, Information, and Intelligence Sciences designed by Los Angeles-based Frank O. Gehry; Simmons Hall, the student residence designed by Stephen Holl of New York City; the Albert and Barrie Zesinger Sports and Fitness Center, designed by Kevin Roche of John Dinkeloo & Associates of Hamden, Connecticut; and the brain and cognitive science project scheduled to open next year, designed by Goody Clancy & Associates of Boston. In addition to introducing



a bold new architectural identity for MIT, the new buildings also address the issue of openness. "We realize that it is crucial to have a permeable campus, a welcoming environment without security guards everywhere," emphasizes William J. Mitchell, former dean of the architecture school and architectural adviser to MIT. In the Stata Center, there are public zones as well as private zones with sophisticated card-key access. Another dimension is physical transparency of the buildings themselves, a real switch in laboratory design that makes life in the scientific community visible and provides unexpected rewards in vistas and observations," he adds. "As the institution seeks increasing public support, it has to take the concept of transparency literally."

The architectural renaissance on the campus has also played a role in attracting top scholars to MIT, which is mirrored by corporations and private developments in the near neighborhood that have created headquarters for a number of leading biotech companies, including Novartis, Biogen, and Gynzyme. The Cambridge

In Chicago's Near South Side, the one-story McCormick Tribune Campus Center (below) at the Illinois Institute of Technology is topped by a 530-foot stainless-steel-clad tube (right) that helps buffer the sound and vibration of the commuter rail tracks.



RICHARD BARNES/ILLINOIS INSTITUTE OF TECHNOLOGY



community also benefits from new housing facilities on campus that have helped to bring students who were renting off campus back to the MIT campus, freeing up affordable housing in a tight metropolitan market.

Further down the Charles River from MIT, Harvard University has been running out of space on its Cambridge campus for years. In fact, the institution currently owns more land in Boston—over 200 acres in Allston—than it does in Cambridge where it is a major landholder. Harvard has owned and used land in Allston—home to the Soldiers Field athletic complex and the Harvard Business School—for more than a century. During the late 1980s and 1990s, it quietly acquired significantly more land in Allston. When the land acquisition finally was announced to the public in 1997, it was not well received. In a move to show its good intentions, the university then donated land and \$25,000 for a new branch of the Boston Public Library in Allston.

While there is still concern over Harvard's expansion plans on the part of the Allston community, it was largely mitigated in fall 2003 by the unveiling of a conceptual plan for the property. In an open letter, Lawrence H. Summers, the university's president, described long-term plans to move the school of public health from the Longwood medical area and the graduate school of education from Cambridge to Allston. The plan also calls for the construction of science and engineering labs and graduate student housing on the new campus. The ultimate goal, according to Summers, is

to create "a robust critical mass of scientific activities" in Allston that would serve as the foundation for a much stronger profile for Harvard in the dynamic bioscience economy. When plans were announced for the Harvard Stem Cell Institute this past spring, speculation suggested an Allston location.

An ongoing dialogue with the Allston community and the development of specific plans are needed with these future expansion plans. Task forces composed primarily of Harvard faculty have been studying how best to move schools and departments in ways that will maintain connection to the Cambridge and Longwood campuses and encourage collaboration. This spring, Harvard announced a shortlist of design firms for the master planning of the new campus: London-based Foster and Partners, and Cooper Robertson & Partners, Skidmore Owings & Merrill, and Rafael Viñoly, all of New York City. Questions persist about many aspects of the campus development—from escalating real estate costs in the neighborhoods to the new architectural image of venerable Harvard.

In Philadelphia, which is home to the nation's highest percentage of physicians engaged in research and which educates more than 20 percent of the country's physicians, the Science Center, a consortium of 30 academic and scientific institutions, recently announced the completion of a revised master plan. Located in west Philadelphia's University City district, the Science Center incubates businesses in an urban technology park comprising more than 2 million square feet where relatively inexpensive rents are offered, along with access to nearby universities, hospitals, and other research entities.

The Jerde Partnership, a master-planning firm based in Venice, California, conducted workshops to incorporate feedback from the University of Pennsylvania, Drexel University, Children's Hospital of Philadelphia, and other private and public agencies in an effort to develop a master plan that will satisfy the demand for high-quality office and research space and the need to create a sense of campus community that reinforces the Science Center's role as the synergistic hub of the academic and research institutions in the area. The plan introduces housing, retail, and other community



DOUG SNOW/ILLINOIS INSTITUTE OF TECHNOLOGY

State Street Village, housing 367 students, is another new structure built as part of the Illinois Institute of Technology's campus redevelopment plan. It uses glass and sound panels to muffle the roar of the nearby El tracks, while allowing views of the campus.

uses into what had been a primarily research environment. The mix of uses underscores the need for the university-linked scientific community to participate in the social life of the neighborhood that surrounds and supports it.

"There is a real opportunity for place making in the neighborhoods surrounding campuses," notes Tim Magill, senior vice president and principal designer at Jerde. "The university provides an anchor for other development that benefits the institution and the community. More livable environments make economic and social sense," he adds. "We capitalized on the Science Center's location at the hinge of the Penn and Drexel campuses to create an inviting, identifiable public space."

Officials at the Cooper Union, located at the heart of New York's resurgent Astor Place neighborhood, recognized that the changing fortunes of the area presented a prime opportunity to realize several long-term goals. As a major landowner, the institution acted on the opportunity to leverage its real estate holdings so that it will be able to substantially renew its endowment and, at the same time, provide modern facilities for academic programs. The redevelopment—part urban design, part real estate venture—reflects the entrepreneurial spirit of Peter Cooper, the philanthropist who established the school in 1859. Cooper's legacy, a free education for working-class men and women, has long been linked to the properties at Astor Place. Symbolically, the historic great hall has come to represent open access to higher education in the city. The school's real estate literally supports the Cooper Union's endowment with monies raised in rent and property taxes that are rebated to the school by the city.

The multiyear, three-building master plan for the Cooper Square campus includes a 22-story residential building currently being developed by the Related Companies and designed by Gwathmey Siegel & Associates, both of New York City, on the site of the former Astor Place parking lot owned by the school. Future steps, outlined in a development study by Ehrenkrantz Eckstut & Kuhn Architects of New York, include the replacement of the existing

two-story Abram S. Hewitt Memorial Building, located at 41 Cooper Square, with a new engineering building. The college's new academic facility, a nine-story, full-block structure on the site owned by the city, is to be designed by Thom Mayne, founder and creative force at Morphosis, a Santa Monica, California-based architecture firm. Once the academic building is occupied, Cooper Union will lease its current engineering building site, which it also owns, at 51 Astor Place to a developer for design and construction of a mixed-use, primarily commercial facility—with space for some Cooper Union uses. The college intends the latter building to attract companies that have synergy with its academic programs and provide opportunities for research and creative ventures in collaboration with faculty and students.

While officials at Cooper Union believe that the new plan, which includes an improved streetscape, is an enhancement to the entire area, it is recognized that the introduction of new buildings, however necessary for the continued health of the school, has implications for the community. A lengthy public review process has provided a forum for discussion about the bulk and height of the proposed structures and other changes. "Since the beginning, we've convened numerous meetings with local groups, neighborhood associations, and city officials," points out Ronni Denes, vice president of external affairs. "We've also invited them to join us in looking at opportunities for streetscape improvements in the area."

Almost ten years ago, the Illinois Institute of Technology (IIT) concluded that its modernist campus with a collection of buildings by Mies van der Rohe, who once headed IIT's architecture school, had lost its drawing power. The facilities were in disrepair and the surrounding neighborhoods on Chicago's Near South Side were suffering. IIT convened a planning group to discuss the options. "Everything was on the table," explains Lew Collins, president of IIT, "even a move from the city." The decision was made to stay in its current location and to capitalize on its assets, which meant renovating a core group of the van der Rohe buildings to create "a state-of-the-art Mies museum" and updating the campus plan.



The Southern California Institute of Architecture (SCI-Arc), which relocated four years ago from Santa Monica to a 97-year-old freight depot (left and below) in downtown Los Angeles, has served as a living laboratory in urban issues for the architecture students as SCI-Arc helped to stabilize the neighborhood, and continues to play an active role in what happens to the area in terms of future development.

one-story building's roof, buffering the sound and vibration. At the same time, IIT also added the new State Street Village student residence hall, designed by Chicago-based Helmut Jahn, an IIT alumnus.

In Los Angeles, the Southern California Institute of Architecture (SCI-Arc) was enticed to relocate in 2000 from Santa Monica

to a 97-year old freight depot in the downtown area by then-mayor Richard J. Riordan with a \$1 million subsidy. The move, to a somewhat questionable part of downtown that was beginning to redefine itself, not only provided a living laboratory in urban issues for the architecture students, but the presence of the school also helped to encourage the fledgling artist colony in nearby studio lofts while helping to stabilize the neighborhood. Since its move, SCI-Arc has shown interest in the vacant lot adjacent to the campus, measuring some 15 acres in size, as a potential mixed-use environment with affordable lofts, a restaurant, and student housing. However, the improved fortunes of the neighborhood helped to drive up the price of the lot and the land was sold to developers before the nonprofit architecture school could raise the funds to buy it. Adding to the disappointment was the discovery that the new owners wanted to develop luxury high rises.

With strong support from the community and the local city council representative, SCI-Arc currently is working with the developer in order to have a say about what happens to the site. "We see an opportunity to accommodate a range of interests: students and teachers, artists, neighbors, and potential newcomers," maintains Eric Owen Moss, director of SCI-Arc. "It is as important to construct a sociology here as it is to create architecture. In the long run, the discussion of the site is a discussion about a redefinition of Los Angeles, about the eastern edge of downtown, and its future," he stresses. "We believe we have a role to play."

And, so it is with the immediate issues surrounding urban campus plans everywhere, the discussion in the larger context is about the coevolution of the university and the city—and their shared futures. This convergence of interests has taken generations to occur; its continued success will depend on sustained commitment and collaboration. ■

NANCY EGAN HEADS NEW VOODOO, A CONSULTING PRACTICE THAT PROVIDES IMAGE/CONTENT DEVELOPMENT TO THE REAL ESTATE AND DESIGN COMMUNITIES FROM OFFICES IN SANTA MONICA, CALIFORNIA, AND CAMBRIDGE, MASSACHUSETTS. **PAUL NAKAZAWA** IS AN INTERNATIONAL BUSINESS CONSULTANT BASED IN BOSTON, AND A MEMBER OF THE FACULTY OF THE SOUTHERN CALIFORNIA INSTITUTE OF ARCHITECTURE.



Selected for the master planning effort was Dirk Lohan of Lohan & Associates, a Chicago architect and van der Rohe's grandson. Lohan recommended that the long, empty strip bisected by the Chicago Transit Authority's elevated train tracks be the site for a new campus center and proposed holding an international design competition to choose the architect. Given the challenges inherent in the site—from the speed and noise of the commuter trains to the need to preserve the legacy buildings—the solution needed to be "out of the ordinary."

Rotterdam-based, Pritzker Prize winner Rem Koolhaas was selected with his one-of-a-kind design for the McCormick Tribune Campus Center, a campus crossroads that has made the enclosure of the disruptive commuter rail tracks an integral part of the structure. The 530-foot stainless-steel-clad tube sits directly above the