BERKELEY: CAMPUS AND COMMUNITY

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From early on, universities and their cities have had relationships marked by synergy and hostility. If the idea of a university has two archetypal models, then one of them—Cambridge or Oxford—is about universities distancing themselves from the city, while the other—Bologna or Paris—is about embracing it. Berkeley, the university and the city, grew up together. Today, the campus is set within a relatively urban context, but it is still recognizably a real campus. This essay reprises their development, noting that the university's steady expansion overflowed its original campus boundaries and, as it grew, influenced the sometimes cooperative, sometimes resistant community around it. Today, it is unavoidably clear that they are joined at the hip—not just where they overlap, but in the larger sense of mutual dependence.

Concluding that it's not too early to look out to a new midcentury and speculate what both might become by 2050, we end our essay by considering how the campus and the community might evolve. This takes the form of three scenarios that look out toward futures that we characterize as *Small*, *Large*, and *Slow*. The first two reflect ongoing disputes over density between the advocates of preservation and of "smart" growth, while the third attempts reconciliation. The campus isn't precisely a park, but it anchors the city with park-like open space, making it easier to add density around it. In 2011, a referendum in Berkeley endorsed the city's plan to redevelop the transit-served downtown area west of the campus at a higher density. As the plan is implemented, it will be important to give this and other campus edges breathing room, weaving together buildings, pedestrian and view corridors, and open space to make for a desirable and complementary whole that is not simply a response to regional density targets.

1. Introduction

This moment—the second decade of a new century—is an interesting one to consider the flagship Berkeley campus of the University of California and its city. Some 90 years after it was founded, spurred by state and federal largesse, UC Berkeley took on the highly specialized nature of a 20th-century research university in the American sense. The colleges that formed or grew in the initial postwar boom spawned new programs and institutes. After 2000, as public funding declined, private donors stepped in to fund major new buildings, sometimes as part of research and other initiatives they also funded.

Fragmentation was the price that the campus paid for specialization. In an era of relative austerity, the overlap among these disparate parts has exacerbated an unwieldy and inefficient structure that is hard to sustain. When the Great Recession hit in 2008, no one could say for certain how long austerity would last. The initial response was to cut across the board, reducing salaries, eliminating lectureships, and trimming staff; five years later, it is clear that a return to business as usual is impossible. What Schumpeter called "creative destruction" may be the most fruitful way to look at the opportunity this crisis presents.

The city government of Berkeley has a comparable dilemma, having built up a structure dependent on revenue flows that are way below their high-water mark. Like the University of California, it has to secure voter approval of new tax measures to avoid continued deficit spending. In the view of some of their critics, these measures are temporary fixes that merely postpone the more radical rethinking and restructuring that both need to shift their respective models of higher education and governance. As the phrase "relative austerity" implies, neither the campus nor the city lacks for money. Their budgets are substantial by the most of the world's measure, and the university's is growing, although its sources have changed. Both still have considerable room to restructure and transform. Indeed, they have every possibility of doing so together, recognizing the extent to which their fates have always been entwined.

All of this points to the pregnancy of this moment. Over its history, California has often shown the way forward for others, with Berkeley—the campus and the community—among the leaders. The campus is legendary for its "reserved parking" signs for Nobel laureates, so valuable today that the winners joke that the monetary prize pales in comparison. UC Berkeley economists are credited with helping turn Indonesia around, among other countries. Now their attentions are focused on Washington, DC and Sacramento. The city is bound up with this. Despite bouts of antagonism, there is mutual pride and influence.

2. The Campus and the Community

That there are tensions in the relationship reflects not only the steady growth of the campus beyond its original boundaries, but also the fact that the university is constitutionally independent from local control, addressing constituencies that are regional, national, and even international rather than local, with a student body that, while mostly transient, votes in local elections and often sways their results. While their proximity will always add tensions to the relationship, their issues and challenges are remarkably similar. The diminishing role of state funding puts them both at an interesting crossroads. Despite the financial pressures of their current situations, they have inherent advantages which position them well for the future, if they can see it and capitalize on it.

Not the least of this are the Bay Area's long-term prospects. The region is doing better than many others in the US, owing especially to its high-tech and social-media clusters in Silicon Valley and San Francisco. The economic challenge is to diversify from there—a shift in which UC Berkeley is likely to have a strong role. In the absence of strong regional government, the Bay Area has evolved a coalition of public agencies, institutions, and business interests that often coalesce around issues of regional economic and environmental importance. UC Berkeley is part of this. The governmental challenge is to make a real regional government of this coalition, preserving its checks and balances but not the local veto power and the many regulatory lacunae that dog it now.

Within the region, Berkeley—campus and community—enjoys the advantages of a physical location of considerable beauty and amenity, directly accessible by transit to the main regional destinations and two of the region's three airports. If the university is an urban campus with a park-like setting, the city around it combines a relatively dense center and arterials with residential neighborhoods. Good bus transit to Oakland gives students access to housing beyond the city's borders in newly vibrant areas. (The campus is the biggest generator of bus trips in the East Bay, according to AC Transit.) As this implies, the university and the city together have brighter futures than their current challenges suggest. Both stand to benefit if they address them in tandem and work toward joint solutions whenever possible.

3. The Evolution of the Berkeley Campus

John Galen Howard's plan for the Berkeley campus exemplifies the strategy of creating a setting for architecture. It was a beaux-arts plan that reflected the way popes and kings built. It leveled the land. Although the campus was organized as a series of steps, Howard treated it as if it were flat. He designed buildings for it that had no relationship to the local materials and climate. Bernard Maybeck, whose work and planning for the campus was more organic, was pushed aside. The idea of making the plan for a grand campus largely came from Maybeck, but after the competition that he put together was held, the dreams and ambitions of others took precedence. Hearst and Stanford, vastly rich San Franciscans and US senators from California, had to change trains in Chicago when they traveled east. They would have seen Chicago's World's Fair, with its "White City" modeled on imperial Rome. This image, which reflected America's budding imperialism, appealed to these patrons of "the Athens of the West."

Maybeck, respecting the natural influence on the campus, crept in at the edges. Howard set the beaux arts pieces down between the two branches of Strawberry Creek, at a distance from riparian nature. These remnants were where Maybeck designed the Men's Faculty Club and the original architecture school. Howard's shingle-style Women's Faculty Club and Naval Architecture Building demonstrate his acceptance of—indeed, his endorsement and participation in—a leitmotif of informality that almost from the beginning formed a counterpoint to the beaux-arts grandeur of the campus's inner core.

Remarkably, this framework had held—partly formal, rooted in classicism and expressive of California's sense of its own destiny, and partly organic, rooted in the land itself, predating Howard's interventions. The principal legacy of the Campus Planning Study Group, with which all three authors were associated, was to draw attention to it often enough—and to stress the responsibility of stewardship that rested on successive campus administrators, deans, and academic entrepreneurs—to give it both currency and acceptance. Thus the campus, which was in real danger of being paved over by unplanned, outsized growth in the 1970s, has in fact been developed more thoughtfully. The results are far from perfect, but the setting that Maybeck and Howard in their different ways envisioned is still palpable.

Origins and Growth: 1860–1970

The history of the founding and growth of the flagship campus of the University of California reflects the wider history of California. If the Gold Rush brought temporary prosperity and a surge in population to the state, the railroads, large-scale agriculture, and urban-scale development of its metropolitan centers positioned it as the wealthy western anchor of America's economic expansion. As the ranking families sought to make their mark, higher education benefited from their largesse. If Stanford University was the privately funded rival of Harvard and Yale, the University of California was the public, populist riposte. That this image of public service persists—Berkeley as the model of a great public university—is a tribute to the power of a 19th-century optimism about the future that still animates California in the early 21st.

The formal history of the University of California's Berkeley campus begins in 1860, when the College of California, then located in Oakland, took over 160-acres of farmland between the north and south branches of Strawberry Creek as a new campus. In 1864, the College Homestead Association was formed to acquire and sell lots around the campus. In 1866, the Association bought an additional 320 acres for speculative residential development to benefit the college, and its trustees hired Frederick Law Olmsted to plan the future development of these combined holdings. The Morrill Act of 1862 had established federal land grants to the states for colleges of agriculture and "mechanics" (engineering). Four years later, in 1866, the California legislature founded a new Land Grant college on a site north of the College of California's campus. In 1867, the trustees of College of California offered its campus as the site of a merged public institution, the University of California.

A series of campus plans followed. The 1870 plan of San Francisco architect David Farquharson updated Olmsted's plan to reflect the university's ambitious building program. One of the first two new buildings, South Hall, built in 1873, still exists. The Farquharson plan clustered the new buildings where Olmsted had originally placed them, with the view corridor toward Golden Gate as the organizing axis. The influential philanthropist Phoebe Apperson Hearst funded an international competition in 1897, based on a program developed by Regent and lawyer Jacob Reinstein and the architect Bernard Maybeck. The winner was the eminent French architect Emile Bénard, who subsequently came to Berkeley to adapt his Beaux Arts plan to the campus's realities. His plan shifted the Olmsted axis to the north, lining it up with the emerging street grid of the town. It left Strawberry Creek free to meander through campus.

Bénard declined the position of Campus Architect in 1900. The Regents then resolved that only an advisory committee—consisting of the original competition jury plus three prominent architects—could modify his plan. Outside member John Galen Howard became Supervising Architect for the University in 1902, immediately taking the position that the Bénard plan was more of a suggestion than a template for how to proceed. Designing the Hearst Memorial Mining Building, the first of his many buildings for the university, Howard aligned it with the existing campus nucleus, a legacy of Olmsted and Farquharson. He modified the Bénard plan in 1908, adopting their Golden Gate axis, and again in 1914 by orienting many of the new buildings toward this central axis rather than toward the city-facing edge.

George Kelham, a San Francisco architect who also planned the UCLA campus, succeeded Howard as Supervising Architect in 1927, extending the campus south to Bancroft Avenue. He was succeeded in 1938 by San Francisco architect Arthur Brown, Jr., who departed from the Beaux Arts style of his predecessors to build in a stripped-down classical style affordable in the Depression years. He also commissioned a modern-style dormitory complex, Stern Hall, designed by William Wurster. Brown's 1944 plan relegated dormitories to sites off the main campus, made Strawberry Creek the armature of campus open space, and sited new development—limited to four stories in height —along a new axis extending south from the Hearst Mining Building.

Surging postwar enrollment at the university, along with new prosperity and growth in the city, shifted both toward a more urban context. When Brown stepped down as Supervising Architect, the Regents established the Office of Architects and Engineers (OAE) in 1949 to replace him. In 1955, they created a Committee on Campus Planning. Berkeley Chancellor Clark Kerr, Architecture Dean William Wurster, and Regent Donald McLaughlin worked with OAE Chief of Staff Louis DeMonte to produce the 1956 plan. It contemplated a modern campus with at least 25,000 students, to be accommodated "without sacrificing the beautiful physical setting." The 1956 plan increased the density of the central campus through redevelopment, removing some obsolete and temporary buildings, and increasing the size of new ones. Building coverage was set at 25 percent. The plan increased close-in parking, sought to limit on-campus development to uses requiring campus access, and called for consultation and cooperation with the community through the City of Berkeley Liaison Committee, headed by Wurster until 1957.

The space race inaugurated by the Soviet Union's launch of the Sputnik satellite in the late 1950s, led to a surge in public investment in higher education, particularly in science, mathematics, and engineering, in the US. The University of California's 1960 Master Plan for Higher Education in California called for the student population of the Berkeley campus to rise to 27,500, 45 percent of which would be graduate students—a level of enrollment reflected in the campus's 1962 Long Range Development Plan (LRDP). To preserve the 25 percent coverage limit, the 1962 LRDP accepted the need for taller, mostly midrise buildings. Academic clusters were maintained, but major new campus buildings were added, along with multilevel parking structures at the periphery. In the 10 years following the 1962 LRDP, two million square feet of buildings were added, bringing total campus building development to seven million square feet. (The issues of the campus's population and the balance of undergraduate and graduate student enrollment have persisted as points of contention between the university and the city. It arose most recently in relation to student housing in the Southside district adjoining the campus. The current enrollment breakdown is about 25,000 undergraduate students and 10,000 graduate students.)

Campus Revival: 1970–1990

People only become aware that something is amiss when clear evidence of the fact is unavoidably in view. This truism proved true on the Berkeley campus when Evans Hall, a nondescript highrise building, was allowed to block the view corridor toward the Golden Gate envisioned early on in the Beaux Arts campus plan. Then the threatened demolition of Howard's shingle-style, 1914 Naval Architecture Building brought the Berkeley Architectural Heritage Association out in protest. In response, Chancellor

Albert Bowker turned to Dean Richard Bender to establish and lead an initiative to understand the history and current situation of the Berkeley campus. From its vantage point on the ninth floor of Wurster Hall, the faculty and student staff of the Campus Planning Study Group (CPSG) set to work.

One of CPSG's decisions was to inventory the large number of historic buildings and places on the campus and protect them by nominating them for the National Register of Historic Buildings and Places. Another was to revive and update the campus's planning framework as a guide to stewardship and future growth. This meant understanding the framework that Howard and Maybeck had put in place and going beyond it to identify the individual precincts that had grown up as the campus evolved. These two efforts were complementary in that the National Register nominations established that the clusters of buildings around landscaped settings were the real source of the campus's significance. Both were carried out in collaboration with the city and the Berkeley Architectural History Association.

The CPSG developed guidelines for developing new buildings within the classical core and around and the informal landscape around and beyond the two forks of Strawberry Creek. The CPSG also defined and carried out studies of the individual campus precincts, in an effort to project how each could densify without losing the spirit of the place. The CPSG also addressed the development of the areas adjoining the campus, including the Downtown and Southside areas. These studies influenced decision-making about specific new building projects. They also informed the deliberations of the newly formed Campus Design Review Committee. Finally, the CPSG provided a "Plan for a Plan" that summarized its findings and suggested a future development framework. This led the Berkeley campus to tie the long range development plan process to environmental impact review—now the norm for all of the UC campuses.

The CPSG had several kinds of influence, but the most important was a kind of moral suasion: thanks to its work and the active support and involvement of Chancellor Bowker and his successor, Ira Michael Heyman, it became harder, even with abundant building funds in hand, for would-be builders to ignore the fabric of the campus, because more and more people understood it and valued it. This is not to say that the fabric wasn't sometimes ignored, but the trend was positive. Over time, the campus became a better client, too, getting better results from the architects, landscape architects, and planners it hired.

The other important result of the CPSG's efforts was to point to the settings of the campus as the more important means to understand and preserve its essential qualities. This began with the broad sense of the classical core and natural edges, but it took in the way the different precincts were anchored and activated by larger and smaller open spaces, by pathways, by views, and by buildings of a certain type and scale. This fine-grained understanding of what existed set the stage for a more sophisticated, more nuanced consideration of how it might evolve.

The CPSG's understanding of the campus was urbane and the value it placed on urbanity has survived, persisted, and grown. While every subsequent campus plan at UC Berkeley reflects it, its most important legacy may be to have communicated this understanding. By helping ordinary people, untrained in planning, design, or history, to grasp how campus buildings and settings contribute to the quality of life of the university community and its neighbors, the CPSG made the process of design advocacy easier for a generation of campus planners—not only at Berkeley, but at the other nine campuses of the University of California, each of which has benefited from the early and strongly positive example that CPSG provided.

Planning the Future Campus: 1990–2010

In the early 1990s, the Regents of the University of California began formally to require each campus to prepare an LRDP that would define its specific planning, development, and academic goals. UC Berkeley completed a 15-year LRDP in 1990 and began work on the 2020 LRDP less than 10 years later. Certified by the Regents in 2005, it provided an integrated, contextual framework for UC Berkeley's future.

That the 2020 LRDP was conceived as a framework rather than a vision is the key to its effectiveness. The LRDP identified and addressed critical issues facing the UC Berkeley campus. It is an institution- and site-specific document that provides both a conceptual physical planning context and an academic context for making a wide range of decisions about the future of the campus and its environs. Unlike its 1990 predecessor, the 2020 LRDP addressed how the university and the city could work together.

The critical question answered for UC Berkeley through the 2020 LRDP planning process was, "How can we support both development and stewardship of our campus?" The LRDP process provided an approach to stewardship, defined a direction for campus development, and provided a framework for understanding the physical character of the campus. One of its important tasks was to identify appropriate future building sites and decide on their development capacities. The 2020 LRDP used campus history to understand these opportunities and put a structure in place for growth and change.

In considering the campus's future, it was clear that the 2020 LRDP would have to address where the campus would grow. How much growth and what types of programs would be important to understand; but, for the purposes of the plan and its on-going effectiveness, specific growth and programs became less important than establishing a consistent and overall approach to that development—including not just the campus proper, but the Southside, Downtown, and Northside areas of the city that border it.

The 2020 LRDP viewed the campus as part of the region and thus one in a series of interconnected plans. Although the campus edge remains clearly defined, elements of the campus—people, buildings, and activities—would move into adjoining neighborhoods. UC Berkeley facilities and activities would also be located elsewhere in Berkeley and other East Bay cities. While the historic campus remains a source of identity for town and gown alike, the 2020 LRDP envisioned the university being more fully integrated, physically and economically, with both the surrounding community and the region as a whole.

Even in 2005, it was clear that mobility was a factor of growing importance for the campus. The 2020 LRDP recognized that many people on the campus beyond its immediately adjoining neighborhoods. While they may not need to be on campus daily, they still needed to connect with it—in reality and virtually. The 2020 LRDP responded to this by considering the transportation issues affecting the city and the university. Today, mobility's implications are more visible and much more pervasive. In 2005, it looked like virtual connectivity would reduce the demands placed on the campus as a physical setting. What has happened instead is that the use of the campus has stretched out to fill nights and weekends.

Interestingly, the technology-based industries that dominate the Bay Area have embraced place, even as they leverage mobility to use it more intensively than before. Often preferring to repurpose the buildings of the previous generation rather than build new ones, the fastest-growing tech companies pair high-density work settings with an array of curated amenities, from art to food trucks and carts. The spaces are "hackable," inviting users to shape and reshape them without having to rely of facilities staff. These urban and suburban campuses are not bad precedents for any campus, including Berkeley's.

Engaging the City: 1990–2010

The 2020 LRDP reflects the changed political context that had led, a few years earlier, to a joint Southside planning effort by the City of Berkeley and UC Berkeley. The City Southside Plan, adopted by Berkeley City Council in 2011, was informed by an understanding and acceptance of the ideas of this joint planning effort. Of particular importance was the principle that the Southside is an area the city shares with the university, with a physical and social character that is shaped by both. The idea that the Southside is an area with fluid boundaries and integrated campus/city spaces and activities is new, although its realization has been slow in coming. A similar impulse has led to greater campus/city cooperation in the Downtown area, which provides a model for the Southside area in the future. Despite its broader view, the 2020 LRDP stopped short of considering how the university and the city might share resources in the future. Since 2004, though, their cooperation has pointed more and more in this direction, as the university has had a growing role in using and developing the edges of the campus.

Downtown Berkeley adjoins the west edge of the campus and is its main gateway. Since the CPSG studied the area, the university has acquired and leased significant amounts of space there, but neither the 1990 nor the 2020 LRDP looked closely at how the area relates to the campus. After the Regents certified the 2020 LRDP, the City of Berkeley sued the University of California, arguing that proposed mitigations for the impacts on the city of UC Berkeley's future development were inadequate. In settling the lawsuit, the university and the city agreed to co-develop a plan for downtown Berkeley. The resulting Downtown Area Plan reflects changes in the way the university views the downtown. The UC Berkeley-specific uses in plan are envisioned as settings in which flexible, mixed uses of all types can coexist. In particular, the importance of the economic relationship between the university and the city is stressed. The plan recognizes their shared interest in a viable downtown, with each having a role to play in achieving it.

At the same time that it provides a framework for the stewardship of the campus's rich landscape and building resources, the 2020 LRDP anticipates some basic changes in the way the campus is used. For example, it reserves campus buildings and future building sites for key academic activities, including instruction and research. Administrative and auxiliary activities, including athletics, recreation, and parking, are pushed beyond the edges of the campus park. This step posits an essentially car-free campus and proposes to locate new student housing based on travel time from the center of campus on foot, bike, or transit. The city favors a car-free downtown, but the community is divided on the issue. Giving bikes more priority over cars, as is happening now in San Francisco, has been piecemeal and inconsistent. Yet cooperation and joint initiatives between the university and the city on these issues are growing.

The Downtown Area Plan and the Streets and Open Space Improvement Plan both suggest ways to link the physical campus and the downtown. Using scale, massing, and landscape, these plans define ways in which the university's growth in the downtown preserves the character of both. The Downtown Area Plan also supports economic connections between the campus and the city, particularly related to university uses and spin-offs in the downtown. Technology transfer—drawing on university-based research and development—plays a key role in such economic initiatives as the Green Corridor, which seeks to develop green technology as an industrial base for the East Bay. While the 2020 LRDP does not address these activities, they are one of the main considerations now in campus planning for new development.

The 2020 LRDP anticipated greater cooperation between the university and the city. A good deal of this was already implicit in the plan as it considered transportation, the co-development of the campus edges, and other issues and possibilities. Its authors could not foresee that only a few years later, a recession of unprecedented depth and length would dramatically change the funding picture for the public sector of which they were both part, setting the stage for a reappraisal of how each might operate—separately and together—to deal with consequences of a severe reversal of California's fortunes.

4. Facing up to the New Normal

"A crisis is a terrible thing to waste"—this memorable phrase by Rahm Emanuel, President Barack Obama's then chief of staff, is applicable to Berkeley, campus and city, in 2012. The University of California as it exists today is still very much a product of the "long boom" that saw the development of a number of new campuses and the consolidation of UC Berkeley's reputation as a public university of global reputation. The realities of a post-Great Recession world have understandably been slow to sink in. This is not say that economic stringency will last forever, but that real recovery will not occur until the public sector undertakes the kind of fundamental restructuring that the private sector has undergone on a more regular basis since the end of the initial postwar boom in the early 1970s. Although public support for higher education has ebbed and flowed in the decades since then, the University of California was largely insulated from it. Today, it is not, although California's recovery and higher taxes have eased the immediate crisis. US politicians prefer a crisis to "boil over" sufficiently to provide political cover for long-delayed action to acting in advance to forestall the crisis, which goes some way to explaining why the state, the university, and the city are pushing hard to restore their revenues through added taxation. Yet the real benefit of the crisis, which is to reconsider each of these institutions in a fundamental way—an act of imagination, not simply of political will—remains unfulfilled.

The University of California and the Berkeley campus have at least expressed a willingness to tackle the problem. How they will do so is not yet clear—understandably so, since it is not yet clear what will be required, even in the short run, as the state struggles to balance its budget. Still, the outline is visible. At the macro level, greater rationalization is needed among the three systems of higher education in the state, eliminating redundancy among facilities and programs in order to preserve the most viable components and heighten their synergy. Across the board, there is a need to leverage resources far more effectively, to apply Buckminster Fuller's principle of "doing ever more with ever less." There is also pressure simply to do less—to focus the university on its strengths. Easily said, but Berkeley is comprehensively strong, so the debate about "less" often pits political and business priorities against academic and cultural ones.

Reforming a university is not for the fainthearted. At Berkeley, experiments in collaboration among departments still founder over jealousy and asserted prerogatives, despite an oft-stated commitment to it. As in previous eras, it will probably take a broader, transformative vision, imposed from above or without, to lift the university off the shoals of its current predicament and reposition it for the future. This is essentially what happened in the early 1960s, when the University of California took concrete steps to embrace the future as a public mega-university, with Berkeley as its flagship. The results would probably be unrecognizable to its planners, but they secured a pride of Nobel Laureates and a global reputation.

For its part, the City of Berkeley's situation is more like that of the healthcare "industry" in the region. After years and years of expansion and rising costs, healthcare providers have run into mounting resistance from the public and private sectors that ultimately fund them. To cope with falling revenues, insurers and providers initially penalized physicians and patients, starving the former of revenue and the latter of services. Today, though, insurers and providers are finally leveraging digital tools that are absolutely common in most of the private-sector economy. The City of Berkeley is belatedly showing signs an interest in doing the same thing, having first tried to maintain the status quo through myriad new fees and steadily diminishing services that it continued to provide in "customary" ways to preserve staff.

In our view, the Great Recession is really a turning point, an impossible-to-ignore signal that an era—the postwar era of US hegemony and California expansion and largess—has ended. To revive and thrive, the campus and the community need to accept that the road to 2050 will be fundamentally different than the one that brought them through the postwar era to 2008. It's a challenge, but it's also a huge opportunity.

5. Three Midcentury Scenarios

Even today, it is possible to imagine Berkeley at midcentury. Forecasts are notoriously inaccurate, tending to overestimate current trends and underestimate the future's potential to surprise. A comparable forecast for 2012 would have been made in the early 1970s, around the time of the oil embargo. Reality reflects some of what might have been predicted for it, but a great deal was missed. To sidestep this dilemma, let's consider two scenarios, Small and Large:

Berkeley Small
In this scenario, the campus and the community accept the 2012 economy as the new base and begin to organize around it. The university reconsiders its size and its approach to education and research. With state funding no longer tied to enrollment, UC Berkeley targets the world's "best and brightest" students, ending or diluting its current role in helping to create a leadership meritocracy for California alone. Instead of being known as a leading public university, it is now considered as one of the world's leading research universities. Professional school enrollment shrinks significantly, and the undergraduate programs are recast to compete directly with the top-tier private colleges, with little or no preference for in-state students. Emphasizing advanced research, the campus would shed its role as an R&D partner and training ground for industry. By 2050, campus enrollment would drop to a third of the current level—around 12,000 students. The campus would continue to modernize, mainly through renovation and reuse.

The community around the campus continues to grow "organically," with the downtown gaining modest density, but the residential districts largely maintaining their existing character. Buildings and settings that are seen as intrinsic to the city's sense of place are preserved. Growth is not proscribed, but it is no longer actively encouraged. Density targets set by regional government are resisted on the grounds that Berkeley already absorbs and houses a large student population, so it has already done its part.

Berkeley Small is about "less is more." Its antecedents include the preservation movement, opposed to growth "for growth's sake" and interested in preserving much of the existing fabric of the community, including the campus proper, to maintain a sense of continuity with the past and a sense of place that is closely identified with buildings and settings "of significance." It is less clear that the value placed on tradition would extend to redefining Berkeley as a smaller and essentially private institution, out of reach of many California families. By using some of the strategies outlined in the next scenario, the university could conceivably support higher enrollment without having to bulk up its programs and facilities.

Berkeley Large
In this scenario, the campus and the community hitch their wagons to the global economy. The university expands on all fronts. Using new technologies and in response to worldwide demand, it transforms its curriculum and research programs in an effort to offset diminished state funding. Financial aid is focused on the most promising students in need of it; everyone else pays full tuition. While advanced research is maintained, the bulk of university research addresses current federal, state, and industry priorities. The scale and diversity of this research attracts a sizeable cohort of enterprises that see it as a source of new products and talent, spawning an R&D corridor centered in Berkeley that stretches north and south. While the growth of jointly developed satellite campuses continues, the campus proper sees considerable new development, with the "park" redefined to take in specific open spaces and corridors, while other areas see historic and other older buildings removed to make room for larger ones better suited to current needs.

Meanwhile, the city follows through on its 2012 vision of a denser downtown and a "new and knowledge economy"-focused West Berkeley. Wholesale reform of transit infrastructure revives the city as a regional destination. Joint redevelopment of the main transit corridors increases their density, resulting in a much more urbanized city with a 2050 population of 200,000 people, including 50,000 UC Berkeley students. Smart growth policies, closely tied to regional government targets, anticipate 250,000 people by 2075.

Berkeley Large is about "more is more." Its precedents include the Smart Growth movement, which sees growth as inevitable and aims to accommodate it sustainably by adding density around transit hubs and limiting or prohibiting exurban sprawl. Another precedent is the mega-/multiversity envisioned by California Governor Pat Brown and University of California President Clark Kerr during the state's postwar boom. Leveraging of technology, mobility, and synergy with the California State University and Community College systems would thus be expected to support maximizing total enrollment at UC Berkeley, even if it simultaneously sought to mitigate its physical impact. More recently, the appearance of enormous tech campuses like Apple and Facebook, housing thousands of employees, reverses the trend of older tech companies to leverage mobility and technology to cut their real estate footprints. If this new trends takes hold, the campus might be expected to revive open-plan, studio-type settings—Wurster Hall is an example—because students expect them. Alternatively, these settings may find their way into the community, with the campus proper preserved for a different type of experience.

Berkeley Slow

The word *Slow* reflects the influence of Slow Food and its offshoots, like the Slow City movement, on the Bay Region. Coined in opposition to the *Fast* of fast food and mass tourism, the word suggests to us "careful, deliberate, and attentive to the nuances the local." It's about tempering the push and pull of these larger forces, whether global or regional, to preserve and foster the unique qualities of each community. Applied to the campus and the community, Slow seeks a middle ground that recognizes that both have unique qualities that warrant a more thoughtful and nuanced approach, responsive to the pressures of growth, but also determined to reinforce these qualities rather than sacrifice them. Berkeley Slow also recognizes that Berkeley is unique. As Michael Pollan puts it, "The University is so much bigger than the little islands of buildings that we think of it as." The same is true of the community—they both stretch out across the country and across the seas, cosmopolitan in spite of itself, with a corresponding impact.

In this scenario, UC Berkeley re-imagines the way it that students, faculty, and staff interact and the places and spaces, real and virtual, where collegial interaction occurs. The idea is to leverage its human, physical, and technological resources more effectively to serve more students affordably and well. This may involve limiting their tenure on the campus, but it also focuses on making the on-campus experience richer. Whatever and whoever can be is shifted to other institutions, to purpose-built learning and research centers (some potentially shared with the city), and to virtual learning.

The result is that while the campus grows, its growth is tempered by countervailing efforts to increase building utilization—a 24/7 campus—and limit its use to activities that uniquely benefit from it. So while the campus population reaches 50,000 students, they are accommodated in ways that limit their actual impact. Some density is added, some older buildings are removed and replaced, but the spirit of the campus as park is preserved. New construction is reserved for truly new needs that cannot easily be met by the existing buildings.

Barriers to cooperation and joint development between the university and the city diminish. There is a mutual recognition that each benefits from the other, and that both have an obligation to live up to their importance and influence in the wider world. That resolve begins to guide how they think about their growth. The campus and community increasingly look for opportunities for shared use. The university joins forces with Berkeley High School and Berkeley City College to establish an East Bay Learning Commons that compliments the Downtown Arts District now anchored by the Berkeley Art Museum and theater. The revival of Telegraph Avenue, long identified as an important priority, is achieved through joint effort. People's Park becomes a shared open space, comparable to Live Oak Park in North Berkeley. The city sensibly continues to emphasize transit-oriented development, but it helps push for regional reforms that link density with quality of life. More attention is paid to the role of the existing fabric in creating a sense of place and to the need to "build up" to the changes in density that occur around transit

and transit corridors. By midcentury, the city has grown to 150,000 people. The downtown is thought of as a model of urbanity. Its neighborhoods are recognizable as themselves, but new transit options have increased the density of their walkable commercial centers. The city looks better and works better.

A big part of that "working better" reflects the combined efforts by the campus and the community to secure the benefits of regional and statewide investment in transit infrastructure and in making the transition from private cars to a hybrid model that uses an array of strategies to reduce car trips and get people to walk, bike, and ride. Local transit, better attuned to its customers, replaces the cumbersome and underutilized bus routes of old. A fundamental rethinking of the street grid makes the city safe for bikers and pedestrians, while micro-cars and car-sharing hubs dramatically reduce the number cars on streets. Moving goods follows transit's lead, aiming for low impact and convenience.

6. What the 2050 Scenarios Imply

These three scenarios have a degree of overlap in their aims and outcomes. We pose *Slow* to suggest the likelihood of a hybrid, partly unpredictable process—dialectal, perhaps—that moves toward a future that won't please all comers, but builds in enough deliberation, reconsideration, and recalibration to push the future of the campus and the community in a positive direction. Implicit in *Slow* is a sense of the value of both as actual places with characteristics, such as the integration of communal open space and the fostering of a sense of community through a whole range of means that blur the boundaries of town and gown and maintain settings and features that have been in the picture almost from the start.

Today's concerns about the cost of higher education and the need to move it into the 21st century are skewing consideration of the university's future. The best analogy is probably to healthcare, which in the US is in the midst of a similar crisis of access and affordability. Both have lagged other sectors in leveraging technology. Doing so opens up new possibilities for using the campus more effectively, connecting it more seamlessly to the broader public education system in California, and making greater use of the resources—human and otherwise—within the University of California system itself.

The campus and the city both operate on the "long clock" that Stewart Brand described. The Berkeley campus has roots in both historic models of the university—Cambridge and Oxford on the one hand, and Bologna and Paris on the other. The city, brought into the 20th century by a remarkable cohort of activists that viewed "the Athens of the West" as a people's democracy, also looks back at a much older tradition. Both stress the importance of supporting the community. Neither precludes integrating the innovations of modern life, but the people and settings that uniquely define them take precedence.

The university and the city have clear reasons to restructure, but if they don't rethink how they interact with and support their constituent communities, it won't make much difference. *Place*—the collectivity of buildings, settings, and connecting elements that the university and the city encompass and share—is essential. Most people think of place as "hardware," but it engenders the "soft" activities that fall outside the planner's calculus. A useful planner's word here is *armature*, which considers place as occasioning activities over time that are increasingly hard, even impossible, to predict. The useful life of a given place before some kind of intervention is required is determined by its innate openness to this unfolding.

As the flagship campus of one of the world's leading public universities, UC Berkeley has a responsibility to redefine for a new century the land grant tradition of public universities of which it is part. That idea, now 150 years old, retains at outsized importance, as exemplified by Cornell University's development of a second campus in New York City to serve one of the economic engines of the state, region, and nation. Along with it is the willingness of major universities, public and private, to share course content with the whole world, giving institutions and individual scholars and researchers across the planet online access to

world-class curricula and teaching. Finally, prodded by current limits of public support, there is a desire to reform and streamline the streams of public and private education across the state. Cornell, which is both a private university and a public land-grant university, suggests a possible model for UC Berkeley.

The campus is still best understood as a real place. Despite the attractions of online learning, everyone recognizes that time spent with a cohort of fellow students has intrinsic value. Graduates from the 1970s, visiting the campus, note that the language lab is gone and students gather in wireless-equipped cafés and other gathering places. They see, though, that there are still seminar rooms, studios for hands-on work, and places for lectures and concerts—opportunities to see and hear campus and visiting luminaries as real people. Much of what happens on campus isn't really new, but the changes that have occurred, particularly in the way information is conveyed, has made some settings obsolete.

7. The Road to 2050

The Campus Planning Study Group explained the campus to a new generation. A similar impulse has guided successive LRDPs. The implementers rarely get everything right, but they manage to avoid the worst missteps of their predecessors. As this suggests, the university is further down this path than the city. A comparable understanding of its districts and neighborhoods and, at another scale, its regional context and connections would, if it reflected broad agreement and shared understanding, help set the terms for discussion and decision-making about the city's future as a place. Right now, that's missing.

Planning a campus or a city has a strong and necessary element of stewardship. This is probably more honored at UC Berkeley than within the Berkeley city government, but then the city's critics are almost exclusively focused on preservation, providing a check that may eventually lead to a better balance. The role of steward comes down to finding a way forward that reconciles complex and often contradictory motives for growth and preservation. It comes down to keeping tradition in view while asking, again and again, how best to maintain it given changing needs, problems, and constituents. Part of being a steward is simply to pose the questions, "Is this really worth doing?" and "Isn't there a better way?"

The university is a better steward than the city because it has a longer institutional memory and less pressure—or fewer incentives—to embrace change for short-term, sometimes self-interested reasons. It also moves slowly, which gives it more time to reflect on the desirability of the "big ideas" that plans contain that need that time to temper and improve. While the university's partnership with the city is a pragmatic one, not universally welcomed by the city or its citizens, it reflects a basic truth about their shared role and fate: they constitute a single community—and a unique one in the eyes of the world.

The work of the Campus Planning Study Group a generation ago is a useful precedent for a planning process that lets the university and city find shared common ground with each other and with their respective constituents. Making use of Berkeley's district-based government, the two could sponsor an analogous effort to understand and inventory the existing conditions of the districts and neighborhoods, pointing to strengths, weaknesses, opportunities, and threats. Like CPSG's initial groundwork on the campus, the results of these efforts would be less of a plan for the future and more of a consensus about the broad framework within which such plans would unfold. Plans have a way of being subsumed by the immediate interests of politicians and organized "neighbors." Calling the effort a study and focusing on understanding the elements and how they add up to a framework would help to avoid this outcome.

We believe that the university is better positioned than the city to lead this process. Moreover, its involvement in spearheading it would acknowledge their mutual dependence—the extent to which the failure of either one to sustain itself and thrive would constitute a growing disaster for the other. The

university would have to overcome lingering suspicion of its motives within the community, but it is the senior partner in the relationship, with greater resources and more staying power.
What we are proposing is really a new study group—an ongoing commitment to engage the community. We believe this will be better received and have a more lasting impact than a study or a plan on its own. Ideally, the study group's focus would include the campus itself a district of the city. That way, the 2030, 2040, and 2050 LRDPs will be not just the plans of the university, but increasingly of the city it shares. That way, any and all plans that these two overlapping communities make will reflect a collective sense of what matters—of the qualities of place, broadly understood, that are intrinsic, vital, valued, preserved.

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