

A Tale of Three Campuses

Planning and Design in Response to Cultural Heritage at Mills College, the University of California, Berkeley, and Stanford University

Perhaps the most enduring contribution we can make is to know intimately what makes our campus special.

by **Karen Fiene with Robert Sabbatini**

Karen Fiene, AIA LEED AP, has practiced architecture in the Bay Area since 1982, specializing in academic design and planning. She served as president of the nationally recognized design firm EHDD Architecture and founded a private practice prior to joining Mills College. As campus architect, she promotes good design and the thoughtful integration of cultural history. Over the past five years she has overseen the largest building expansion in the college's history and was co-designer of the first LEED Platinum building in Oakland and one of two LEED projects on campus. A frequent presenter at national organizations, she has been recognized with awards for her contributions to campus planning and environmental stewardship by professional organizations including the Society for College and University Planning.

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How do forward-looking institutions with rich landscape and architectural heritages integrate contemporary programming and design? This article explores the evolution of the Mills College campus and compares it with two larger western universities: the University of California, Berkeley (UCB) and Leland Stanford, Jr., University (Stanford University). How has the character of each campus been preserved or lost, and what measures are being employed today to ensure each campus's cultural heritage is valued and reflected in current planning and design? The three campuses have commonalities, yet each exhibits a unique character and predominant architectural style.

Campus Beginnings

The first impression of a visitor to Mills College is one of being in a lush garden with buildings set within the landscape. Early 20th-century Spanish Colonial Revival buildings line an allée of overarching London plane trees (figures 1 and 2). Thick stucco walls with deep-set windows and gabled clay tile roofs create an intimate scale further embellished with porches, balconies, and decorative arched entryways. In contrast, the Beaux Arts ensemble of the classical core at UCB is characterized by stone pediments, fluted columns, and decorative architraves topped with clay tile roofs (figure 3).

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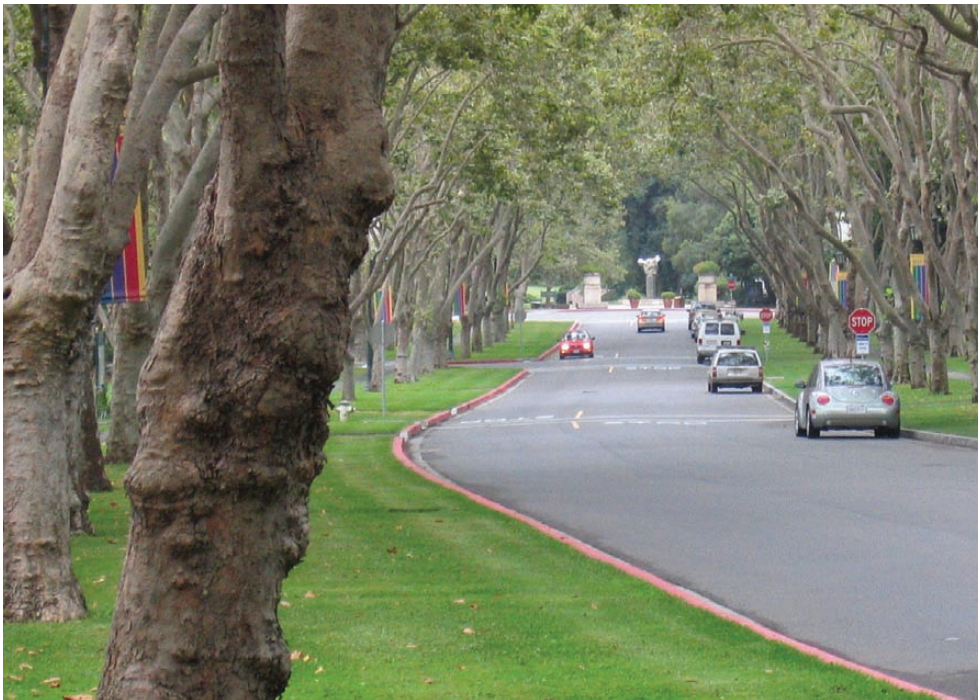
Figure 1 **Mills College: 1929 Music Building**



The Music Building is characteristic of the Spanish colonial influence on campus. Walter H. Ratcliff, Jr., architect.

Photograph © Cesar Rubio

Figure 2 **Mills College: View Along Richards Road**



London plane trees line Richards Road, the campus's main entry.

Photograph © Robert Sabbatini

Figure 3 **University of California, Berkeley: Historic Core**



Aerial view of the historic core, Sather Tower, and the Bancroft and Doe libraries. John Galen Howard, architect.

Photograph © Cody Andresen

But there are also interesting similarities between Mills College and UCB. Like many colleges in the 19th century, the two institutions were founded by eastern educators with religious origins intent upon providing spiritual guidance during the early days of the Gold Rush. After outgrowing their modest beginnings, both institutions were sited at the confluence of creeks on gently sloping open farmland with views of San Francisco Bay. Both campuses benefited from the powerful influence of Phoebe Apperson Hearst, mother of newspaper baron William Randolph Hearst, and from the work of renowned architect Bernard Maybeck, who taught at UCB.

Frederick Law Olmsted's 1865 plan for the College of California, UCB's predecessor institution, incorporated the natural meanderings of several creeks that broke the grounds into loose quadrants and situated the major buildings at the crest of a promontory (figure 4).

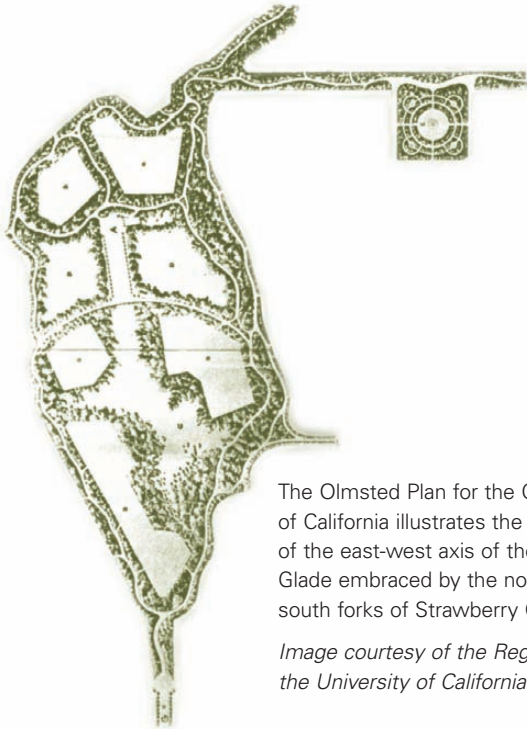
Olmsted employed a similar concept in his early plans for Stanford University in Palo Alto (figure 5). However,

influenced by the European traditions seen in his travels, founder Leland Stanford ultimately imposed a formal arrangement of quadrangles surrounded by arcades whose massing recalled the local Spanish missions (figure 6).

A common thread influencing the design of all three campuses is the Ecole des Beaux-Arts training of their primary architects—John Galen Howard, Bernard Maybeck, and H. H. Richardson. Another architect of great influence was Julia Morgan. In addition to her Paris training, Morgan was the first woman to graduate from UCB with a degree in civil engineering. It was at UCB that she met Howard, Maybeck, and trustee Phoebe Apperson Hearst. Through these connections she designed buildings for both Mills College and UCB. One of Morgan's first commissions was Mills College's iconic El Campanil, which forms the nucleus of the campus's historic core (figure 7). The 1904 tower was one of the first reinforced concrete structures in California, and it impressed wary engineers after it survived the devastating 1906 earthquake. Morgan went on to

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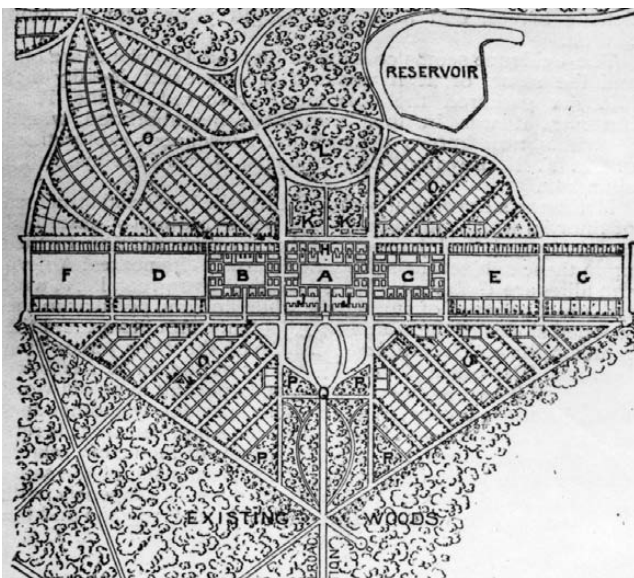
Figure 4 **Olmsted's 1865 Plan for the College of California**



The Olmsted Plan for the College of California illustrates the origins of the east-west axis of the Central Glade embraced by the north and south forks of Strawberry Creek.

Image courtesy of the Regents of the University of California

Figure 5 **Olmsted's 1888 Plan for Leland Stanford, Jr., University**



Partial view of Olmsted's original general plan for Leland Stanford, Jr., University.

Image courtesy of Stanford Historical Photograph Collection (SHPC), Department of Special Collections and University Archives, Stanford University Libraries, Stanford, California

design five more buildings at Mills that introduced elements influenced by Spanish missions, a departure from the earlier Second Empire Victorian style of Mills Hall. Walter Ratcliff, Jr., another graduate of UCB, trained with John Galen Howard and later became the Mills College campus architect.

The charge of the campus planner is to move the campus forward yet not lose sight of its cultural roots.

Rapid and expansive growth in the 20th century led to campus sprawl and erosion of the historic core at each institution. Each campus has both buildings that successfully relate to their historic context and those that stand out in stark contrast. In recent decades, building designs have responded to ever more stringent accessibility, energy, and safety regulations, thus adding another layer of complexity that campus planners must address. Given the rich legacy of each institution, the charge of the campus planner is paradoxically to move the campus forward yet not lose sight of its cultural roots and, ultimately, its unique sense of identity. The following sections describe how this is being accomplished at each institution.

Mills College

Founded in 1852 as the Young Ladies' Seminary in Benicia, California, Mills College boasts a rich history as a leader in women's education. Mills was founded two years after California was admitted to statehood and the same year that the city of Oakland was established. The University of California and Stanford did not yet exist, and miners, farmers, and merchants wanted to educate their daughters without sending them on the perilous journey to East Coast schools. Mills moved to its current 135-acre park-like setting in 1871 and in 1885 became the first women's college west of the Rockies. Today, Mills, with 1,600 undergraduate and graduate students, is the only independent women's college in the San Francisco Bay Area and one of only two non-sectarian women's colleges on the West Coast.

Prior to founding Mills College, Cyrus and Susan Mills traveled as missionaries to Sri Lanka and Hawaii. In Hawaii they made the connections that brought them to California where they took over the existing seminary in Benicia. Once they outgrew that facility, the Millses went in search

Figure 6 **Leland Stanford, Jr., University circa 1888**



Perspective of Leland Stanford, Jr., University. Shepley Rutan & Coolidge, architects, and F. L. and J. C. Olmsted, landscape architects.
Image courtesy of Stanford Historical Photograph Collection (SHPC), Department of Special Collections and University Archives, Stanford University Libraries, Stanford, California

Figure 7 **Mills College: El Campanil**



El Campanil circa 1910. Julia Morgan, architect.
Photograph courtesy of Mills College

of a suitable location for their new college. When they arrived in Oakland at the location of the current campus, they found a natural environment vastly different from what they had experienced back east and in their travels abroad. The future campus was open grazing land dotted by trees that followed the creek drainages that traversed the property (figure 8). Students and faculty lived and studied in the country, creeks ran full, and animal life was diverse and

widespread. Life on campus involved intimate awareness of nature; it was an urban oasis. Today, the reverse is true: Mills College has become a rural island in an urban sea.

Historic campus master plans. Beyond the initial siting of Mills Hall between two creeks with views to the San Francisco Bay, Mills grew rather unheeded in its early years, with no apparent plan or guidelines. In 1918, trustee Phoebe Apperson Hearst hired Bernard Maybeck to design

Figure 8 **Mills College in the 1870s**



Flanked by Leona and Chimes creeks, the campus's 1870s setting was a landscape denuded from decades of ranching.

Photograph by Eadweard Muybridge (Helios), courtesy of Mills College

a master plan for the college (figure 9). Maybeck's vision called for extensive change. He encouraged the college to grow irrespective of its past, a common approach of the time. While his plan to completely redevelop the campus was not implemented, the college did purchase a substantial area of land along its western boundary in response to new transportation lines to Oakland and beyond.

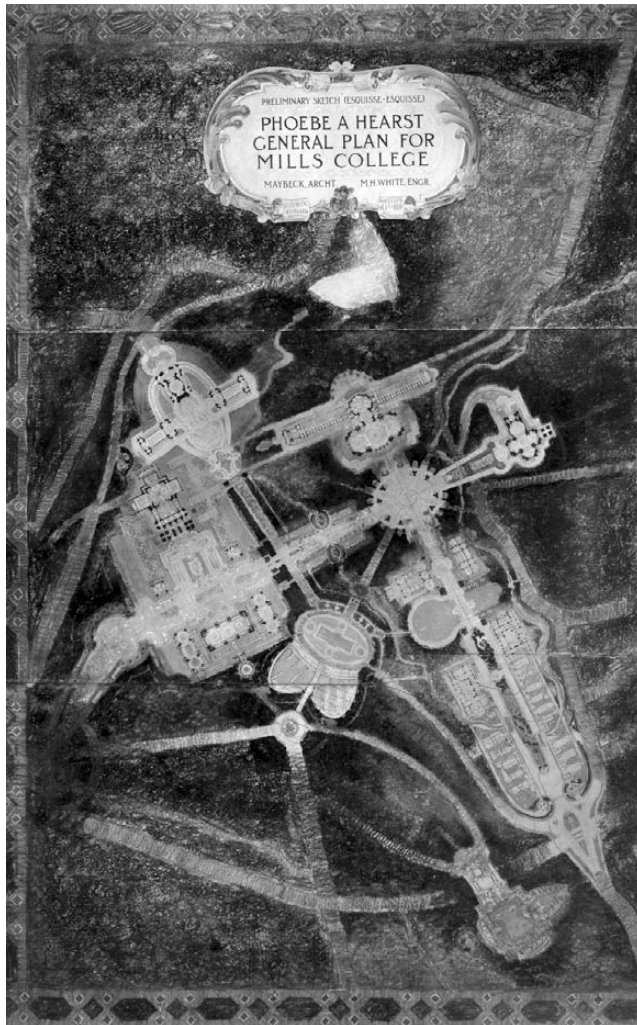
Maybeck wrote, "No one can foresee the future of an institution of such importance as that into which Mills is now growing.... To be vital means to grow, to grow means to adapt an organism to new needs. This point of view must not be lost sight of in planning the housing for the future of Mills" (Keep 1931, p. 130). Maybeck's thinking is still relevant today.

In 1922, Mills president Dr. Aurelia Henry Reinhardt appointed Walter Ratcliff, Jr., a respected architect in Berkeley, to create a new campus master plan. Ratcliff reinvented

Maybeck's plan for the college and introduced the modern-era Spanish Colonial Revival architecture style to numerous existing and new campus buildings. Ratcliff's plan (figure 10) proposed powerful axes that ordered the campus into districts respectful of the topography and existing construction. Although many elements of Ratcliff's plan were realized, the board of trustees did not condone the razing of Mills Hall and the nearby Julia Morgan buildings. Thus, the main axis and central plaza were never built. Ratcliff served as campus architect from 1923 to 1946.

In the 1960s and '70s, campus building design broke away from Ratcliff's Spanish Colonial Revival style, choosing instead a spare, modernist aesthetic typical of that period (figure 11). Although these buildings used historic materials like cast in-place concrete, stucco, and clay tile roofing, their siting, massing, and minimalist style make them the least loved and the most difficult to seismically retrofit.

Figure 9 Maybeck's 1918–19 General Plan for Mills College



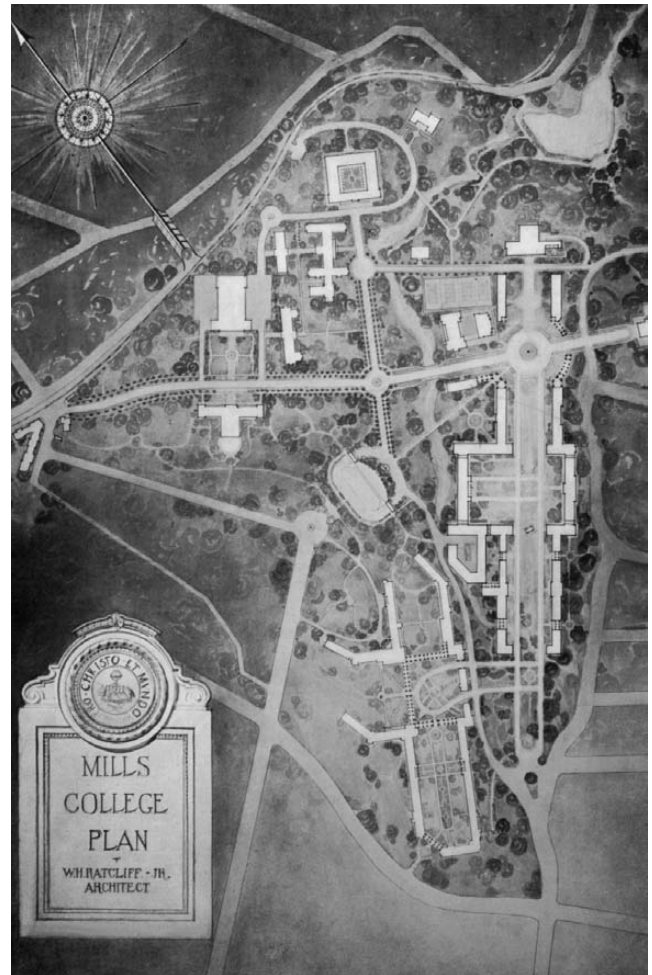
Phoebe A. Hearst commissioned a general plan for Mills College prepared by Bernard Maybeck, architect, and M. H. White, engineer.

Image courtesy of Mills College

In 1994, the college hired the planning firm EDAW (1994) to prepare the *Mills College Campus Master Planning Study*, which included plans for expanded facilities. The plan's introduction eloquently assesses the campus's evolution:

Past planning efforts related to Mills College have been grand, full of optimism and promise. Yet the actual building of the campus has been gradual, building-by-building, each carefully conceived in its own particular setting and in relation to the land. Significant open spaces have evolved over time rather than having

Figure 10 Ratcliff's 1930 Master Plan for Mills College



The 1930 master plan is one of several campus plans prepared by architect Walter H. Ratcliff, Jr.

Image courtesy of Mills College

been initially conceived, and the campus has a casualness to it that is unique, wonderful and calming. Formality exists in the expression of some of the architecture, but there is rarely a place where formality extends out into the landscape or between buildings. The informality of the campus also conveys a lack of hierarchy—putting all things on equal footing—academic, housing, support facilities, and semi-public facilities are all equal members of this built campus family. (EDAW 1994, p. i)

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Figure 11 **Mills College: 1971 Haas Pavilion Gymnasium Complex**



The Haas Pavilion Gymnasium Complex exemplifies the Brutalist period interpretation of the campus's Spanish Revival architecture. Ernest Kump, architect.

Photograph © Karen Fiene

The 1994 plan puts forth several guiding principles that address the campus's garden setting (figure 12), its distinct districts created by topography and architectural expression, its center framed by academic and common buildings, and its fine-grained circulation system for pedestrians and vehicles.

The 2001 *Mills College Campus Master Plan* by BMS Design Group et al. (2001) adopted the principles put forth in the 1994 plan and included design guidelines that gently urge a style compatible with the campus's predominant Spanish Mission character and discourage the use of flat roofs and large expanses of glass. However, it is worth noting that many of the new buildings and additions over the last 10 years have in fact been designed with flat roofs and larger expanses of glass. As the development of the 2010–2020 master plan gets underway, the college will be assessing these guidelines anew.

Figure 12 **Mills College Garden Setting**



Figure 13 Mills College May Fete at Lake Aliso 1917



Costumed students celebrated their May fete by becoming part of the campus's landscape of eucalyptus trees.

Photograph © Mills College

Cultural heritage plan. Creating a cultural heritage plan can help an institution assess its cultural values and their contribution to the campus's sense of place. Such a collective assessment can help an institution decide what to retain and enhance and suggest ways to celebrate its heritage, either by renewing traditions or layering new traditions upon the old.

Mills College benefited by preparing a cultural heritage plan funded by the Getty Foundation's Campus Heritage Initiative grant program (May, Sabbatini, and Fiene 2008). (UCB also received a grant for a similar project.) The grant allowed Mills to collect historic data and information about the institution's culture, to understand its strong ties to the campus's landscape and architecture, and to make recommendations to guide future projects. The project team recommended the use of resources including the Secretary of the Interior's Standards for the Treatment of

Historic Properties with Guidelines for the Treatment of Cultural Landscapes, and National Register Bulletin #15: How to Apply the National Register Criteria for Evaluation. The National Register of Historic Places evaluates properties 50 years and older based on specific criteria.

Research and analysis of the campus's cultural landscape revealed two periods of historic significance that produced works by regionally and nationally recognized landscape architects and architects whose designs embody the high artistic values of their times. The two periods are The Founders (1869–1916) and The Modern Campus (1917–1949). The first period, mainly developed under the college's founders, resulted in numerous buildings that remain today, including Mills Hall, El Campanil, Kapiolani Cottage, and Lisser Hall. Several of these were designed by Julia Morgan. During this period, extensive plantings of exotic trees transformed the open farmland into a lush island of green, closing off distant views and silhouetting the campus skyline with eucalyptus trees. The second period of significance introduced a new architectural style specifically developed for the campus by architect Walter Ratcliff, Jr. The acquisition of land allowed westward expansion to connect to new transportation links to Oakland and San Francisco. Construction included Ratcliff's Music Building (recently restored), the restyling of Willis Polk's Lisser Hall, and the construction of numerous residence halls. The major landscape improvement during this period was along Richards Road, which was lined with double rows of London plane trees. Richards Road has been identified as one of the world's great streets by Allen Jacobs (1995) in his book *Great Streets*.

Throughout these two periods, the college embraced the landscape, creating cultural traditions from outdoor rituals. The annual May fete saw students dressed as eucalyptus trees, participating in a lantern procession and bonfire at Lake Aliso, parading around a May pole near El Campanil, picnicking on Pine Top Hill, and celebrating graduation on the Oval (figures 13 and 14). The eucalyptus leaf eventually became a symbol of Mills College.

The Mills College cultural heritage plan contains case studies that use knowledge of the college's historic cultural values to test development patterns in two key areas of the campus. The case studies serve as examples of how to respect cultural values while addressing the needs of a continually evolving and progressive campus environment.

Historic building renovation project: Mills Hall.

Designed by Edward Bugbee and Sons and constructed in 1871, this Second Empire Victorian structure once housed

Figure 14 **Mills College May Fete circa 1911**



Students parade around the May pole near El Campanil as part of the May fete.

Image © Mills College

the entire college. Mills Hall was placed on the National Register in 1971, the only campus building to be registered. The building has undergone many changes in use and many renovations that have altered the original design. In 1989, the Loma Prieta earthquake damaged the foundation, making the building unsafe to inhabit. A FEMA grant allowed the building to be fully renovated.

As in many older facilities, the building infrastructure was outdated and in need of total replacement. Old gas-fired steam boilers were replaced with highly efficient hot water radiators. New power and telecommunications equipment was installed along with new plumbing, including fire sprinklers and other life-safety equipment. The original brick foundations were replaced with the latest in seismic technology, and insulation was blown into the old walls constructed of redwood studs, a common building material in California's early boom years.

The architects, EHDD Architecture, chose to be true to the exterior detailing by faithfully rebuilding dilapidated mansard roofs and sagging porches, but took a different tack in the interiors by adding contemporary lighting and furnishings that make the building feel fresh and new without compromising its historic significance.

Historic building renovation project: Music Building.

A recent historic renovation restored the 1929 Music Building designed by Walter Ratcliff, Jr. In this instance, the historic interiors were kept intact and restored. Inside the ornate concert hall, a need for acoustic upgrades provided an opportunity to introduce contemporary convex acoustic panels made of fiberglass with a pear wood finish. The juxtaposition of the new panels against the historic background brought the facility up to date without losing the detail of the original work.

Historic landscape renovation projects.

Mills is defined by its topography of rolling hills and natural features, including a manmade lake and three creeks. Founder Cyrus Mills is said to have planted over 5,000 trees, many of which were exotics collected on travels abroad. In the late 1800s eucalyptus trees were planted throughout California for building lumber. Although the wood turned out to be unsuitable for this task, the trees, with their romantic quality and longevity, have become a significant symbol for Mills. Recently, the removal of a historic 130-year-old allée of 100 eucalyptus trees (figure 17) was the subject of a controversial landscape renovation. There was much debate over the replacement trees and whether they should be

Figure 15 **Mills College: Mills Hall**



Mills Hall, originally designed and constructed by S. G. Bugbee and Sons in 1871, was renovated by EHHD Architecture in 1994.

Photograph © Vonn Marie May

Figure 16 **Mills College: Jeannik Méquet Littlefield Concert Hall**



Jeannik Méquet Littlefield Concert Hall, originally designed by Walter H. Ratcliff, Jr., in 1929, was renovated by EHHD Architecture in 2008.

Photograph © Cesar Rubio

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Figure 17 **Mills College: Historic Bryant Path 2007**



Replacement of this original historic allée was the subject of a controversial campus landscape restoration.

Photograph © Karen Fiene

Figure 18 **Mills College: New Plantings on Historic Bryant Path 2009**



The newly planted Bryant Path is well on its way to reestablishing itself as a campus icon.

Photograph © Robert Sabbatini

California natives in line with campus sustainability practices or the original *Eucalyptus globulus* (commonly referred to as blue gum trees, originally from Australia) out of respect for campus history. At the time, Mills was in the midst of developing its cultural heritage plan, which served to increase the institution's appreciation of the value of this historic element. Within several years, 100 new trees of the species *Eucalyptus saligna*, which has a more manageable growth habit, were planted to reestablish the allée (figure 18).

Another major landscape project involves the restoration of Lake Aliso, which was created by damming the creek that runs through the center of campus. The lake, which Maybeck referred to as "the holy of holies," was once an important place for cultural rituals, a place for performances and contemplation (figure 19). Over time, a major freeway and development upstream has allowed pollution and uncontrolled runoff to silt over and spoil the once verdant lake. Current plans call for creating a diversion channel to keep sediment out of the lake, replanting the native riparian corridor, and reintroducing native quail. The hope is that Lake Aliso will once again become a destination for important cultural events as well as provide irrigation, which is welcomed in a drought-prone state.

Figure 19 **Mills College: Lake Aliso circa 1916**



Lantern procession and bonfire.

Photograph © Mills College

University of California, Berkeley

Spurred by the Morrill Act of 1862, the state legislature created the University of California in 1868. The privately held land of the College of California was donated for the development of this public institution. According to *University of California, Berkeley: An Architectural Tour* (Helfand 2002), the development of UCB has been shaped by many great plans that feature a plethora of proposed and executed architectural styles. The Wright and Sanders plan of 1868 proposed a formal plan in the Gothic-Romanesque Revival style. Several years later, the Kenitzer and Farquharsan plan included the Second Empire style. While styles varied, these and subsequent plans adhered to the framework set forth in the Frederick Law Olmsted plan of 1865. By the latter part of the 19th century, the student population was growing exponentially, resulting in a surge in new building. The pace of growth very quickly outgrew the formal axial plan, with no apparent order. Building styles introduced during this period included Second Empire Victorian, Dutch Gothic, Classical Greek, and even wooden structures along the natural edges of Strawberry Creek.

The International Competition of 1897 sponsored by trustee Phoebe Apperson Hearst was a turning point in the understanding of the importance of a campus plan that would build a “City of Learning.” Bernard Maybeck, then an instructor at the university, helped select a prestigious group of world-class architects who were invited to submit

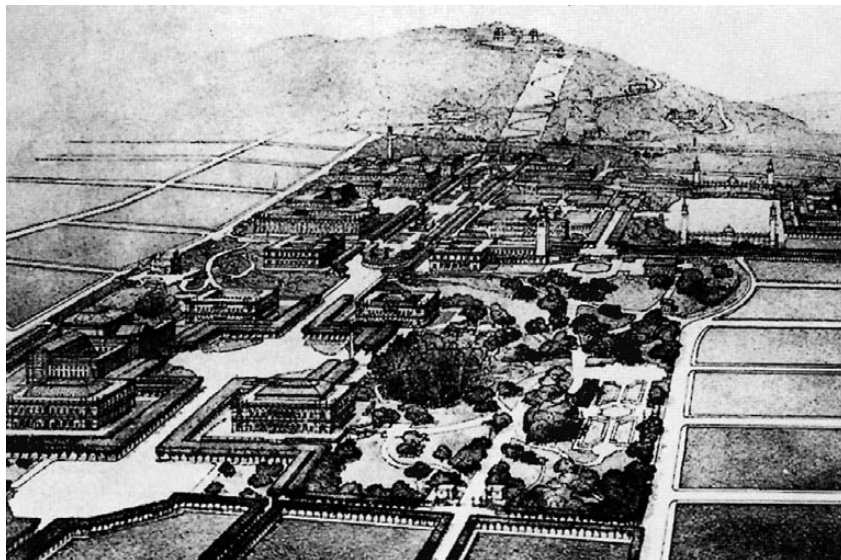
proposals. While the competition sought grand visions, it tempered these visions by requiring submittals to retain the creeks and avoid mass grading of the site. These requirements highlighted the importance of maintaining a balance between the campus’s development and its intrinsic and unique characteristics.

The competition was awarded in 1899 to Henri Jean Émile Bénard, who was eventually dismissed. However, his Franco-Roman style plan did reinforce the prominent east-west axis, guiding future planning (figure 20). **[c**

It was at this time that John Galen Howard, who had apprenticed with H. H. Richardson, joined the advisory board charged with overseeing the Bénard plan. Like Maybeck, Howard had attended the Ecole des Beaux-Arts Paris. It was Howard, who had placed fourth in the competition, who replaced Bénard as supervising architect (figures 21 and 22). His first commission, the Hearst Memorial Mining Building, introduced the Greek Revival and Roman styles that define the historic core of the campus today (figure 23).

In the early 1920s, Howard’s 20-year tenure ended but his influence established the campus’s Beaux Arts core that includes 22 of his buildings. Although subsequent plans in 1933 and 1944 tried to follow Howard’s vision, the postwar population boom and the number of returning soldiers on the GI Bill created a need for rapid expansion. The tie to the Beaux Arts tradition was lost amid the push for a contemporary way of planning and building that would

Figure 20 **Bénard’s 1900 Revised Hearst Plan for University of California**



Emile Bénard’s plan reinforced the university’s prominent east-west axis.

Image courtesy of William Carey Jones, Illustrated History of the University of California, rev. ed. (Berkeley: Students’ Cooperative Society, 1901

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Figure 21 **Howard's 1914 Revised Hearst Plan for University of California, Berkeley**



John Galen Howard revised Bénard's plan.

Image courtesy of the Regents of the University of California

Figure 22 **Howard's 1914 Study of the University of California, Berkeley's Sather Tower and Central Axis**



As supervising architect, Howard produced a study of Sather Tower and the university's central axis.

Image courtesy of the Regents of the University of California

complement growth in the sciences and other disciplines. Fueled by a 1941 state public works employment program, the university entered a postwar construction boom. In the mid-1950s, the notion of a higher planning density emerged that, when paired with new construction technologies, produced buildings both taller and sparer, exposing the structure in a gesture of "honest" construction. Too often this honesty resulted in banal structures that further eroded the power of the original buildings forming the classical core.

By the middle of the 20th century, student enrollment had doubled, further pressuring the campus to grow. In response, an attempt was made to reinforce use of the central core for academic purposes and to create precincts of related disciplines. But the forces of growth were too great, leading to expansive building throughout the campus. One of these new buildings, Evans Hall (figure 24), blocked the century-old Olmsted-inspired view axis of the Golden Gate Bridge from the Mining Circle.

Current UCB planning: "University in the City." The UCB campus today encompasses more than 1,200 acres (including 178 acres at the classical core) and a student population of 36,000. The 1990 *Long Range Development Plan* (LRDP) prepared by ROMA Design Group and the UC Berkeley Physical and Environmental Planning Group (1990) embraced the expansion of the campus into the surrounding city of Berkeley but also reinforced the important planning principles of creating academic districts, maintaining car-free open space (first promoted by Thomas Church in the 1962 plan), and preserving historic and natural resources.

In 2002, the *Strategic Academic Plan* (UC Berkeley Strategic Planning Committee 2002) and the *New Century Plan* (UC Berkeley Campus Planning Office and Sasaki Associates 2002) established guidelines to ensure that physical planning and capital investment were aligned with the intellectual, scholarly, and research direction of the university. The campus most recently completed its

Figure 23 **University of California, Berkeley: Hearst Memorial Mining Building**



The Mining Circle and Hearst Memorial Mining Building (circa 1914) established the dominant style of the historic core. John Galen Howard architect.

Photograph courtesy of the Regents of the University of California

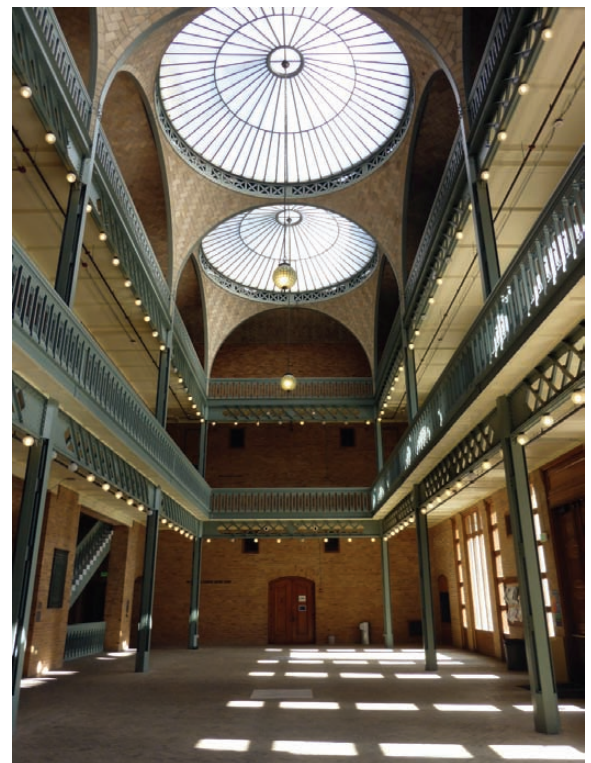


The Mining Circle and Hearst Memorial Mining Building was restored by NBBJ in 2003.

Photograph © Robert Sabbatini

The atrium of the Hearst Memorial Mining Building was part of the 2003 restoration.

Photograph © Robert Sabbatini



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2020 *Long Range Development Plan* (UC Berkeley LRDP Steering Committee and Project Team 2005), which incorporates the 2002 *New Century Plan*.

The LRDP explores and defines issues of contiguity within an interdisciplinary campus. The plan guides future development to create connections between campus precincts and strongly emphasizes campus/community-focused programming and design. There is an acknowledgement of varied styles, including the classical core with its stone and clay tile palette (figure 26) and the natural landscape style along the central Strawberry Creek, which is characterized by smaller volumes, irregular massing, and a predominant use of wood (figure 27).

According to Emily Marthinsen, assistant vice chancellor for physical and environmental planning, "Our planning documents acknowledge Howard's ability to marry the formal and the informal. Both the historic and the contemporary campus reflect a mediated conversation between the classical core and the natural landscape of Strawberry Creek" (pers. comm.). Howard's classical architecture gave rise to the description "The Athens of the West," which contrasts with the Spanish Mission historical influences that define the early Mills College and Stanford design aesthetic.

Current UCB planning: guidelines and design

process. The 2020 LRDP, created in 2005, contains a conceptual design framework for campus development. Under the framework, the university creates project-specific guidelines for each new project on the central campus. In the classical core, building massing and scale are enforced along with a palette of materials that includes stone and red clay tile roofs (figures 28 and 29).

The University of California Regents require all campuses to have a formal design review process. For UCB, each project is reviewed by the campus's Design Review Committee. The committee is chaired by the dean of the College of Environmental Design and includes five practicing professional architects and landscape architects as well as selected faculty and students. Marthinsen believes this process provides a forum for the discussion of critical ideas with the goal of strengthening the university's design and campus planning principles.

UCB uses the Secretary of the Interior's standards to shape and evaluate its response to historic buildings and may consult with but is not bound by the requirements of the State Historic Preservation Office. The standards specify that all new work will be distinguishable from the original

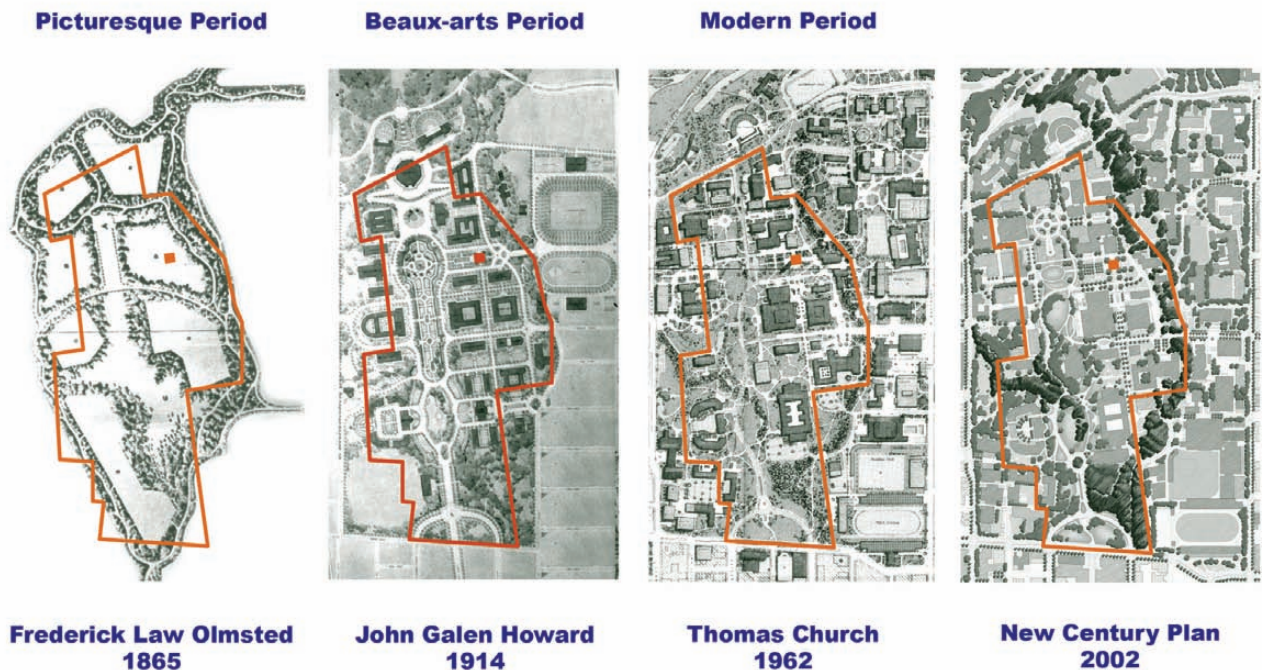
Figure 24 **University of California, Berkeley: Evans Hall**



Described as one of the most despised buildings on campus, the Brutalist period Evans Hall (1970) exemplifies the difficult transition to large building programs.

Photograph by Rob Johnson, © 2010 The Regents of The University of California

Figure 25 **Campus Evolution as Described in the University of California, Berkeley *Landscape Heritage Plan***



The UC Berkeley Landscape Heritage Plan identified four key periods of the campus's 150-year morphological evolution, the most recent being the New Century Plan. The orange outline identifies the current classical core of the campus.

Image courtesy of the Regents of the University of California

building, with historic components preserved intact. The Design Review Committee addresses how each new project impacts historic resources. Because the campus is largely built out, there are few sites left for development that do not require building removal. Over the years, the university has expanded into the surrounding neighborhoods and has worked with the City of Berkeley to create neighborhood guidelines and a downtown area plan.

UCB Landscape Heritage Plan. The 2004 *University of California, Berkeley Landscape Heritage Plan* (LHP) (UC Berkeley Facilities Services Staff and Sasaki Associates 2004) is the fourth in a series of UCB documents guiding growth for the next 50 years. As with Mills College's cultural heritage study, UCB's LHP was funded by the Getty Foundation Campus Heritage Initiative grant program. The LHP addresses open-space planning, paying special attention to the cultural landscape within the classical core. UCB has national significance as the first federal land-grant university in California and features the work of a distinguished

list of architects and landscape architects. The plan identifies three landscape design movements: The Picturesque Era, The Beaux Arts Era, and The Modern Era (figure 25). Early planners, including William Hammond Hall and John Galen Howard, overlaid Olmsted's naturalistic Picturesque campus plan with the formal monumentalism of the Beaux Arts style. In the mid-20th century, both styles were abandoned for the pared down aesthetic of The Modern Era, as exhibited in Thomas Church's 1962 LRDP. As in prior plans, the 1962 plan supported principles that respected the campus's site context, natural features, and image.

The UCB LHP defines the core guidelines of preservation, rehabilitation, restoration, and reconstruction. The assessment process for proposed rehabilitation projects defines periods of significance, provides a review of historic context, and identifies important aspects of education and culture, including historic plans and drawings, significant design professionals, site integrity, and character-defining features. (Character-defining features include topography, vegetation,

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Figure 26 **University of California, Berkeley: Bancroft and Doe Memorial Libraries**



The formal classical core illustrated by these Howard-designed buildings and the vernacular regional style along Strawberry Creek (see figure 27) are examples of the split styles that characterize the campus.

Photograph © Cody Andresen

Figure 27 **University of California, Berkeley: Faculty Club**



The Faculty Club is typical of the vernacular regional style on the UCB campus.

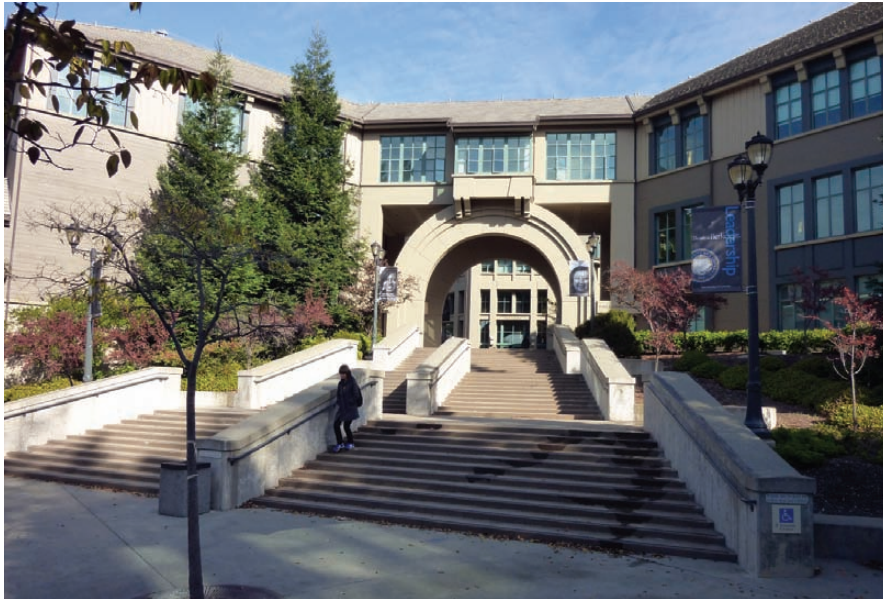
Photograph © Harvey Helfand

circulation systems, water features, structures, furnishings and objects, and environmental considerations such as macro- and microclimates.) The process also identifies incompatible features, influencing the removal of those that are non-contributing. Case study projects include restoration of the Hearst Mining Circle (figure 30) and Campanile Way, a major pedestrian axis in the center of the classical core. The projects enhance existing site features such as planters, benches, and seat walls; restore walkways and

processional tree plantings; and restore original materials such as stone and brick pavers.

Although discussion about campus planning is often building-centric, UCB recognizes that its landscape is the connective tissue that informs first impressions and a sense of place that individual buildings alone cannot create. Each landscape typology elicits an emotion from those who live and work within it. UCB has identified five major landscape types: Rustic, Natural, Picturesque, Neoclassical,

Figure 28 **University of California, Berkeley: Haas School of Business**



Designed by Moore Ruble Yudell and VBN Group in 1992, the large program of the Haas School of Business is successfully broken down into multiple wings around a welcoming courtyard. The use of cast concrete walls and carefully chosen colors recalls historic periods from the Beaux Arts to the vernacular.

Photograph © Robert Sabbatini

Figure 29 **University of California, Berkeley: C. V. Starr East Asian Library**



Designed by Williams Tsien Architects with Tom Elliot Fisch in 2008, the library illustrates how guidelines for the historic core result in buildings with sloping clay tile roofs and massing of the Beaux Arts style.

Photograph © Cody Andresen

and Urban. Detailed guidelines for tree and plant selection, paving materials, lighting standards, walls and fences, and site furnishings are also delineated in the LHP.

Stanford University

Stanford University has a unique relationship to its landscape. Stanford's holdings include 8,000 acres, of which 1,600 are

developed for the central campus. The remainder is considered academic reserve and includes the Stanford Research Park, Stanford Shopping Center, and the undeveloped foothills. The campus houses 700 major buildings and 14.2 million academic gross square feet of space. The extensive grounds include 43,000 trees and more than 650 species of native plants. The relatively small student body is comprised of 6,800 undergraduates and

Figure 30 **University of California, Berkeley: 2008 Hearst Mining Circle Restoration**



The Hearst Mining Circle was restored under the guidelines of the University of California, Berkeley *Landscape Heritage Plan*

Photograph © Cody Andresen

8,200 graduates in what is characterized as a small, self-sufficient city. Since World War II, the campus has undergone continuous and transformative development.

As described in *The Founders and the Architects* (Turner, Vetrocq, and Weitze 1976) and *The Campus Guide* (Joncas, Neuman, and Turner 1999), the monumental scale is the vision of Leland Stanford who, with his wife Jane, created the university to commemorate their son, Leland Stanford, Jr. The palm-lined entry into the Stanford campus is a memorable signature experience (figure 31).

The early master plan designed by landscape architect Frederick Law Olmsted called for campus buildings to be constructed in the hills of Palo Alto with views of farmland and orchards. Stanford, a former governor and senator of California, had planned portions of the transcontinental railroad, which gave him the confidence and experience needed to direct the plan. It was Stanford who determined that the campus would be built on flat land, affording an axial arrangement of buildings (the “quads”) along a formal mall that would be “distinctly Californian” in nature. The bold plan of 1888 was the result of a collaboration among Olmsted, Stanford, and the office of noted architect H. H. Richardson, who was recently deceased. It was Richardson’s colleague Charles Coolidge who introduced arcades based

on forms of Medieval churches known as Richardsonian Romanesque, now considered the iconic image of Stanford (figure 32).

By the turn of the century, Jane Stanford would complete the quads following her husband’s death. But in subsequent years the architectural integrity of the original plans gave way to Classical, Beaux Arts, and Modern-era influences. San Francisco firm Bakewell and Brown designed many of the buildings through the 1930s with proportions and materials sympathetic to the quads (figure 33). John Bakewell proposed that red tile roofs be used on future structures, believing them to be “powerful and invaluable” unifying elements.

After World War II, campus architect Eldridge Spencer introduced a new architectural style characterized by flat roofs and unadorned facades. Outraged alumni vilified this decidedly modern approach, which led to the development of central campus design guidelines that included red tile roofs and warm colors. Like at UCB, much of the postwar expansion at Stanford was in the fields of engineering, science, and medicine. A series of science and engineering quads were planned to harmonize with the original Richardsonian Romanesque, but the larger scale buff concrete and red tile buildings proved to be a generic imitation.

Figure 31 **Leland Stanford, Jr., University: Palm Drive**



Entering the processional entrance of Palm Drive is a memorable signature experience on the Leland Stanford, Jr., University campus.

Photograph courtesy of Linda A. Cicero/Stanford News Service

The Stanford Planning Department has identified five architectural periods including the most recent period of building. The first four are The Farm (1860–1890); the Original Campus or Sandstone Period (1891–1906), characterized by Mission-style arcades and Richardsonian Romanesque; the Beaux Arts Period (1907–1940), in which stucco was introduced; and the Post War Period (1940–1960), which saw the introduction of the predominant concrete of the Brutalist period, when buildings were simply designed as objects in the landscape, eschewing the connectivity afforded by the quad and the arcade. This era signaled a purposeful rejection of the mores of the past (figure 34). The Post Modern Period that followed (1960–present) was influenced by changes in technology, more stringent codes and regulations, and a relatively new commitment to sustainability. University architect David Lenox describes current planning in this way:

The most recent “building boom” at Stanford has focused on the development of mini-master plans for many of the major schools and departments. Like the original Main Quad which was a unified collection of buildings that housed multiple departments, the planning and design in the last five years has focused on establishing a

cohesive architecture and identity for distinct precincts including the Graduate School of Business, the School of Medicine, the Stanford Law School, the Arts District, and the Science and Engineering Quad. (pers. comm.)

Stanford currently has 34 projects totaling \$1 billion in construction either underway or in the planning phase.

Second Century Plan. A renewed interest in landscape and historic preservation has resulted in the resurgence of Olmsted’s original plan. Olmsted’s planning principles have informed Stanford’s *Second Century Plan* (figure 35), which was initiated by then university architect David Neuman in 1991 on the occasion of the university’s 100th anniversary (Stanford University Planning Office 1991). These principles encourage density by utilizing buffer zones, preservation of the historic architectural character, responsible use of space, and optimal planning. The tenets of the *Second Century Plan* are threefold: to reaffirm the Olmsted plan, to create connectors between quads, and to reinforce the historic core of the Main Quad.

All three campuses described in this article have felt the impact of the technological revolution and the resulting rapid expansion of the sciences. Programming for science and technology buildings is vastly different from that for the traditional smaller scale buildings found in each campus’s

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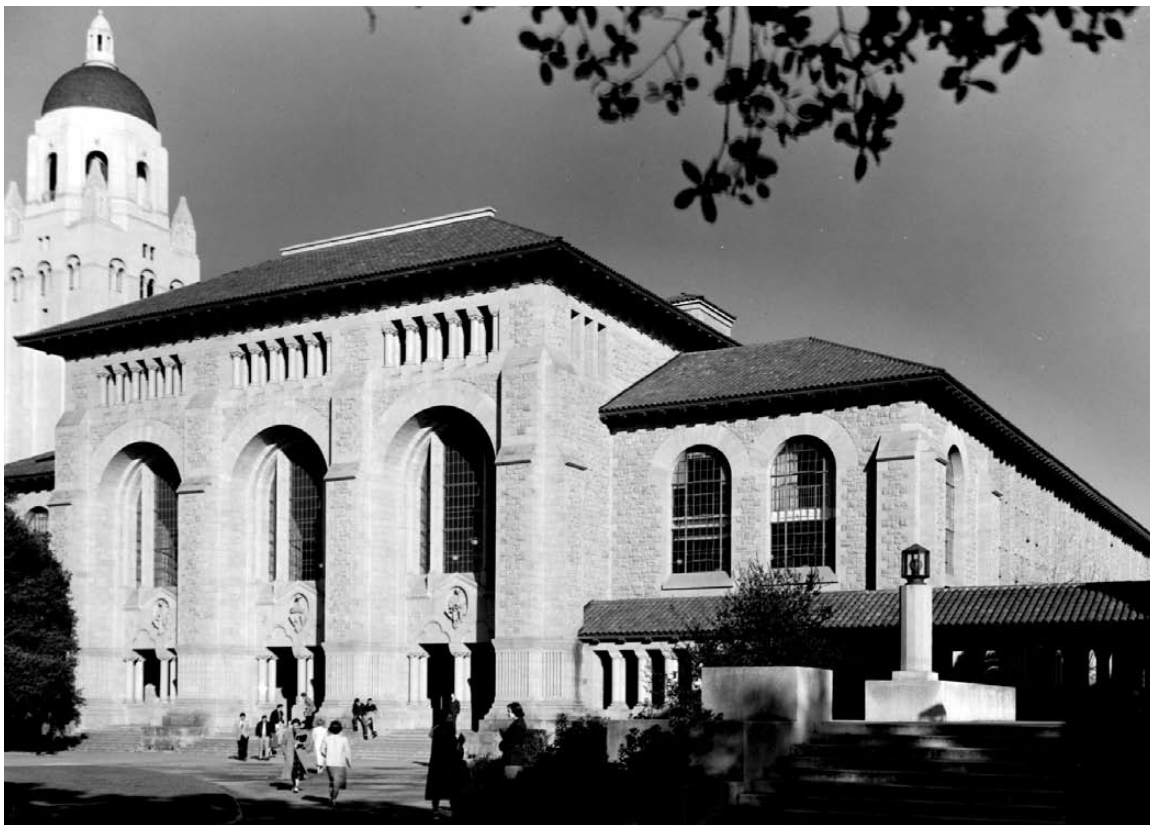
Figure 32 **Leland Stanford, Jr., University: Richardsonian Romanesque Arcades**



Charles Coolidge, a colleague of architect H. H. Richardson, employed the style now known as “Richardsonian Romanesque” at Leland Stanford, Jr., University.

Photograph © Robert Sabbatini

Figure 33 **Leland Stanford, Jr., University: Cecil H. Green Library**



The library, designed by Bakewell and Brown in 1919, features the Beaux Arts architecture that dominated campus design style from 1906 to 1940.

Photograph courtesy of Stanford Historical Photograph Collection (SHPC), Department of Special Collections and University Archives, Stanford University Libraries, Stanford, California

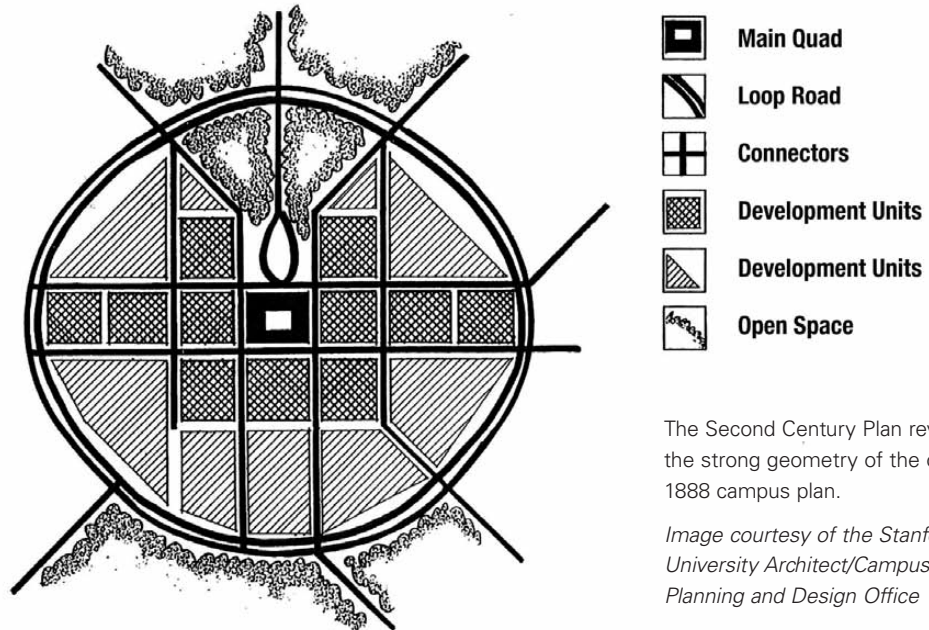
Figure 34 **Leland Stanford, Jr., University: Durand Hall**



Spencer, Lee and Busse's interpretation of the Leland Stanford, Jr., University style lacks the intimate scale and detail of the original quad.

Photograph courtesy of Linda A. Cicero/Stanford News Service

Figure 35 **The Leland Stanford, Jr., University *Second Century Plan***



The Second Century Plan revives the strong geometry of the original 1888 campus plan.

Image courtesy of the Stanford University Architect/Campus Planning and Design Office

historic core. This has resulted in more massive structures that struggle to fit in. While Stanford's planning documents set campus design standards, each project has its own unique guidelines. A closer look at buildings constructed over the last few decades reveals some creative interpretations of the standards, but key common threads: red tile roofs, appropriate scale and color palette, and quad arrangements that include arcades or generous overhangs (figures 36, 37, and 38).

Stanford, like UCB, creates specific guidelines that ensure each project fits within its context and contribution to infrastructure while allowing it a unique identity. As described by Lenox, Stanford's design guidelines acknowledge the challenge of being "inspired by tradition without stifling innovation," with the goal of achieving a "continuity of character without simplistic imitation" (pers. comm.). In the design guidelines for the recent Science & Engineering Quad, for example, roofs are given special attention by prescribing the angle of slope and depth of overhang and indicating a preference for hipped rather than shed or gable forms. Arcades are specified with a height and length ratio compatible with that of Richardson's iconic main quad. Allowed materials include stone, precast concrete, and heavily textured stucco with "qualities of permanence and durability" and specifically exclude reflective materials. Stone suppliers are listed and paint colors such as "Stanford Black" are specified. Significant new structures require a full-scale mockup of materials that must be approved by the university architect.

Restoration. Restoration is an ongoing process at Stanford, which has 20 buildings on the National Register. Preservation guidelines from 1988 provide exacting methods and processes for restoration. Within the historic core, all work must conform to the Secretary of the Interior's 1992 Standards for the Treatment of Historic Places. Doors and windows are considered character-defining features and must be maintained.

Contemporary Planning and the Integration of Sustainable Technologies

Many of Stanford's older buildings were inherently sustainable. They were constructed with indigenous materials and used massive walls and deep-set windows to modulate temperature and planted landscapes to provide shade. Even though modern buildings are more technologically advanced, there are lessons to be learned from 19th- and

early 20th-century building design. We have once again embraced these values and have entered into a new time of environmental awareness in which buildings must be designed to limit energy use, reduce waste, and use natural resources more responsibly. The United States Green Building Council (USGBC) has developed a rating system for building design, the Leadership in Energy and Environmental Design™ (LEED) Green Building Certification Program, that considers sustainable strategies used during design and construction and incorporates long-term considerations for energy and resource use. Most institutions of higher education recognize and incorporate LEED principles into their design guidelines.

As planners, how do our values regarding sustainability and building technology impact planning and design? Stanford landscape architect Cathy Blake noted the university's sustainable infrastructure projects, such as the production of campuswide energy through a 49-megawatt cogeneration plant. She also noted the university's land use priorities, which include water cleansing, storage, and habitat. On such a large campus, transportation systems both to and within the campus are also critical considerations that affect development. In addition, the incorporation of solar panels, green roofs, and rainwater collection systems presents new challenges for the successful integration of technology-driven designs into a historic fabric. As sustainable technology advances, a new lineage of buildings, landscapes, and ultimately campus identity will evolve. This new era of sustainable design must incorporate cultural values to maintain the unique character of each institution.

A sustainable approach to design also provides opportunities to educate students about their impact on the environment by using buildings as teaching tools. A cultural shift is taking place among students and with it a desire for more active involvement. In 2007, Mills College signed the American College and University Presidents' Climate Commitment, which resulted in the creation of a Sustainability Committee charged with integrating sustainable practices throughout all aspects of campus life. Since that time, Mills has consistently been ranked in the 90th percentile of "green" or "sustainable" colleges for its programs in waste reduction, composting, and energy and water conservation. As mentioned previously, plans are underway for the restoration of manmade Lake Aliso, which when restored will again be a place for ritual and celebration, a native habitat, and an irrigation resource. At one time in its early development, Mills had orchards, grew vegetables, and

Figure 36 **Leland Stanford, Jr., University: Paul Allen Center for Integrated Sciences**



Designed by Antoine Predock, this building exemplifies the best of a contemporary interpretation of historic precedent. Use of Indian sandstone and copper shingle roofing pick up on the architectural vocabulary of the historic quads.

Photograph courtesy of Stanford University Architect/Campus Planning and Design Office

Figure 37 **Leland Stanford, Jr., University: W. Gates Computer Science Building**



Designed by Robert A. M. Stern, this is one of the few historicist buildings on campus. Its massing, openings, scale, and materials all reference the main quad.

Photograph courtesy of Linda A. Cicero/Stanford News Service

Figure 38 **Leland Stanford, Jr., University: James H. Clark Center**



Designed by Foster and Partners/MBT Architecture, the unusual undulating forms of this ground-breaking science center highlight sustainable design while the more conventional exterior conforms to campus guidelines.

Photograph courtesy of Linda A. Cicero/Stanford News Service

raised livestock. A proposed full-scale campus farm will once again supply produce to dining services, affording students the chance to participate in the growing of their own food and helping them to make a direct connection to their environment.

Mills College boldly placed its most recent addition, the Lorry I. Lokey Graduate School of Business (figures 39 and 40), on the campus's main thoroughfare. This LEED Gold project showcases the college's commitment to sustainability, as well as the impact new technologies have on campus planning and the architectural character of new buildings. Similarly, the LEED Platinum Betty Irene Moore Natural Sciences Building was designed with a number of sustainable features, such as rainwater harvesting and photovoltaic panels (figure 41).

John King (2009, ¶ 5), the urban design writer for the *San Francisco Chronicle*, highlighted the thoughtfulness needed when designing a building on the Mills campus: "Amid all this, the design challenge is to decide which cues to take. Do you orient to the historic center where travel is by foot, or to the roadway's automobiles? Does the architecture emulate the Spanish-flavored past, or set a forward-looking tone that might attract career-minded students?"

The design architect of the Lokey building, Peter Bohlin, took cues from the neighboring Music Building,

employing the use of a long deep porch and massing that complements the intimate scale of other campus buildings. Original concept plans were more stylistically contextual, responding to the predominant Spanish Mission architectural character. The desire for a "signature" building at the intersection of two major axes led to a contemporary response that respects historic setbacks and massing while incorporating non-traditional materials like an aluminum storefront, zinc siding, split-face stone walls, and metal sunscreens. The use of light-colored stucco, durable yet elegant materials, and compatible proportions integrates the building into the campus fabric.

It is fair to question how the future will assess our decisions and our success in protecting and enhancing our legacy.

The response to the Lokey building has been overwhelmingly positive, leading to a spike in graduate program enrollment. Visible sustainable strategies include a living roof and rainwater collection used for irrigation and to flush toilets. Students learn about sustainable practices through actively making choices that affect their immediate

Figure 39 **Mills College: Lorry I. Lokey Graduate School of Business**



In this building designed by Bohlin Cywinski Jackson in 2009, rusticated stone cladding and zinc panels introduce a contemporary palette. Traditional forms are reinterpreted using the intimate scale and massing of historic buildings.

Photograph © Nic Lehoux

Figure 40 **Mills College: Living Roof on the Lorry I. Lokey Graduate School of Business**



A living roof illustrates Mills College's commitment to sustainable design.

Photograph © Nic Lehoux

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Figure 41 **Mills College: Betty Irene Moore Natural Sciences Building**



Designed by EHDD Architecture with Karen Fiene Architects in 2007, this building features a sculptural fountain that collects rainwater, celebrating the college's commitment to sustainable design.

Photograph © Cesar Rubio

environment. At the new Stanford School of Business, students and faculty made the decision to achieve LEED Platinum as one of the major goals of the eight-building project.

As new buildings move farther afield from their historic stylistic origins, it is fair to question how future presidents, deans, architects, and planners will assess our decisions and our success in protecting and enhancing our legacy.

Moving Forward

Perhaps the most enduring contribution we can make as designers and planners is to know intimately what makes our campuses special and how best to advocate designs

appropriate for our times with the care, detailing, and human scale that are so appreciated in our older structures. The solutions will vary for each college and university, but what is critical is the way buildings occupy the land, the spaces they create, and the way those spaces are used and loved. Building style is less important than the creation of enduring memorable spaces with a scale and palette that support the campus's values and identity.

Perhaps the most enduring contribution we can make is to know intimately what makes our campuses special.

We have learned a number of lessons regarding planning and design in response to cultural heritage:

- *Be a steward and an advocate.* As the Mills College campus architect, my role is to steward the historic cultural values of the built environment, serving as an advocate for the unique identity it contributes. Our interviews of landscape and architectural staff at Stanford and UCB confirmed the critical roles we serve. This advocacy must extend to the institution's staff and leadership, as well as to the entire community.
- *Consistently hire and guide thoughtful architects and landscape architects.* Every intervention in the campus built environment must express the institution's unique culture. This requires a sound understanding of campus heritage and its underlying values in order to create plans and designs that are appropriate to their historic and contemporary contexts.
- *Be flexible.* It is critical to plan and design for the flexibility needed to adapt to changing technologies, integrate sustainable principles that conserve energy and promote health, and continue to meet increasingly stringent life-safety and accessibility requirements.

The experience of creating a cultural heritage plan provided Mills College with a renewed sense of responsibility and respect for its heritage. The plan provides guidelines that acknowledge that "the incorporation of historic values must take place in a broad context that recognizes and balances other, sometimes competing, needs and desires" (May, Sabbatini, and Fiene 2008, p. 80). In the final analysis, the cultural heritage plan concluded that the Mills College campus landscape "had gone beyond its original design intent. Yet, despite the predominance of exotic species and the loss of significant architecture and open spaces, it continues to

convey historic integrity from both periods of significance” (May, Sabbatini, and Fiene 2008, p. 140). Mills has learned that it is imperative for future planning to be based on an understanding of the existing campus landscape and architecture, including those elements that define its cultural heritage.

As Mills embarks on its 2020 master plan, thought will be given to the designation of an official historic core. The college will also explore adding more of its architectural gems to the National Register and the associated potential benefits of obtaining funding for restoration. Planning will include the imperative for both new buildings and historic renovations to be designed based on sustainable principles of using local materials, reducing energy use, conserving water and natural resources, and providing ways for students to be active participants. Like UCB and Stanford, Mills is a forward-thinking institution and future developments will reflect that, but with a new awareness of our place in a continuum. 🌱

References

Works Cited

- BMS Design Group; Skidmore, Owings & Merrill LLP; The JCM Group; Porat Consulting; and Fehr & Peers Associates, Inc. 2001. *Mills College Campus Master Plan*. Oakland, CA: Mills College.
- EDAW. 1994. *Mills College Campus Master Planning Study*. San Francisco: EDAW.
- Helfand, H. 2002. *University of California, Berkeley: An Architectural Tour and Photographs*. New York: Princeton Architectural Press.
- Jacobs, A. B. 1995. *Great Streets*. Cambridge, MA: MIT Press.
- Joncas, R., D. J. Neuman, and P.V. Turner. 1999. *The Campus Guide: Stanford University*. New York: Princeton Architectural Press.
- Keep, R. A. 1931. *Four Score Years: A History of Mills College*. Oakland, CA: Mills College.
- King, J. 2009. Zinc-Clad Outsider Finds Place on Mills Campus. *San Francisco Chronicle*, Oct. 5.
- May, V. M., and R. Sabbatini with K. Fiene. 2008. *Celebrating the Cultural Landscape Heritage of Mills College*. Oakland, CA: Mills College Center for the Book.
- ROMA Design Group and the UC Berkeley Physical and Environmental Planning Group. 1990. *Long Range Development Plan 1990–2005*. Berkeley: University of California, Berkeley.
- Stanford University Planning Office. 1991. *Second Century Plan*. Palo Alto, CA: Stanford University.
- Turner, P. V., M. E. Vetrocq, and K. Weitze. 1976. *The Founders and the Architects: The Design of Stanford University*. Palo Alto, CA: Department of Art, Stanford University.

- UC Berkeley Campus Planning Office and Sasaki Associates. 2002. *New Century Plan: A Strategic Plan for Capital Investment at UC Berkeley*. Berkeley, CA: University of California, Berkeley.
- UC Berkeley Facilities Services Staff and Sasaki Associates. 2004. *University of California, Berkeley Landscape Heritage Plan*. Berkeley, CA: University of California, Berkeley.
- UC Berkeley LRDP Steering Committee and Project Team. 2005. *University of California, Berkeley 2020 Long Range Development Plan*. Berkeley: University of California, Berkeley.
- UC Berkeley Strategic Planning Committee. 2002. *Strategic Academic Plan*. Berkeley: University of California, Berkeley.

Works Consulted

- Dober, R. P. 1963. *Campus Planning*. New York: Reinhold.
- . 2005. *Campus Heritage*. Ann Arbor, MI: Society for College and University Planning.

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