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# TABLE OF CONTENTS

## 1. INTRODUCTION TO THE PROGRAM  
5

1.1 HISTORY AND DESCRIPTION OF THE INSTITUTION ........................................ 7
1.2 INSTITUTIONAL MISSION .............................................................................. 11
1.3 PROGRAM HISTORY ..................................................................................... 13
1.4 PROGRAM MISSION ...................................................................................... 15
1.5 PROGRAM SELF-ASSESSMENT .................................................................... 16
   1.5.1 PROGRAM STRENGTHS ........................................................................... 17
   1.5.2 CHALLENGES WITHIN THE M.ARCH PROGRAM ..................................... 27
   1.5.3 THE FUTURE: OPPORTUNITIES, STRATEGIES AND PROPOSED INITIATIVES .. 29

## 2. PROGRESS SINCE THE PREVIOUS SITE VISIT  
31

2.1 SUMMARY OF RESPONSES TO TEAM FINDINGS ........................................... 33
   2.1.1 RESPONSE TO CONDITIONS UNMET .................................................... 33
   2.1.2 RESPONSE TO “CAUSES OF CONCERN” ................................................ 39
   2.1.3 RESPONSE TO CONCERNS REGARDING CONDITIONS GENERALLY MET .... 43
2.2 SUMMARY OF RESPONSES TO CHANGES IN NAAB CONDITIONS ................. 49

## 3. THE THIRTEEN CONDITIONS OF ACCREDITATION  
50

3.1 PROGRAM RESPONSE TO NAAB PERSPECTIVES ....................................... 53
   3.1.1 ARCHITECTURAL EDUCATION AND THE ACADEMIC CONTEXT ............... 53
   3.1.2 ARCHITECTURAL EDUCATION AND THE STUDENTS ................................ 61
   3.1.3 ARCHITECTURAL EDUCATION AND REGISTRATION .............................. 66
   3.1.4 ARCHITECTURAL EDUCATION AND THE PROFESSION ........................... 68
   3.1.5 ARCHITECTURAL EDUCATION AND SOCIETY ...................................... 75
3.2 PROGRAM SELF-ASSESSMENT PROCEDURES ............................................. 78

3.3 PUBLIC INFORMATION .................................................................................. 82
3.4 SOCIAL EQUITY ............................................................................................ 86
3.5 STUDIO CULTURE ......................................................................................... 94
3.6 HUMAN RESOURCES .................................................................................................................. 97
   3.6.1 M.Arch students’ educational background, degree program
       selectivity, retention, time-to-graduate since 2003 NAAB visit ........................................... 97
   3.6.2 Faculty: balance between teaching and other responsibilities ........................................ 101
   3.6.3 Faculty-student ratios for studios at all design levels ....................................................... 104
   3.6.4 Relevant administrators: distribution of
       administrative and other responsibilities ............................................................................ 106
   3.6.5 Staff: distribution of administration and other responsibilities ...................................... 109
   3.6.6 Identification of any significant problem, with
       recommendations for improvement ................................................................................... 112
3.7 HUMAN RESOURCE DEVELOPMENT ................................................................................... 115
   3.7.1 Policy on human resource development opportunities .................................................. 119
   3.7.2 Visiting lecturers and critics ............................................................................................ 121
   3.7.3 Public exhibitions since 2003 ......................................................................................... 125
   3.7.4 Student support services: academic and personal advising ........................................... 126
   3.7.5 Student participation in off-campus activities ............................................................... 127
   3.7.6 Student access to professional societies, honor societies, and other campus activities ... 132
   3.7.7 Policies, procedures and criteria for faculty appointment, of the demands of practice ... 140
3.8 PHYSICAL RESOURCES .......................................................................................................... 146
   3.8.1 Labeled plans .................................................................................................................. 147
   3.8.2 Description of physical resources ................................................................................... 156
   3.8.3 Description of changes to physical facilities, under
       construction or proposed ........................................................................................................ 164
   3.8.4 Description of hardware, software, networks, and
       other computer resources available .................................................................................. 165
   3.8.5 Identification of any significant problem that impacts the
       operation or services, with a recommendation for improvements ....................................... 167
3.9 INFORMATION RESOURCES ................................................................................................. 169
   3.9.1 The environmental design library .................................................................................... 169
   3.9.2 The environmental design archives ............................................................................... 174
   3.9.3 The visual resources center ............................................................................................ 176
   3.9.4 Other visual resources .................................................................................................... 177
3.10 FINANCIAL RESOURCES .................................................................................................... 179
3.11 ADMINISTRATIVE STRUCTURE

3.11.1 INSTITUTIONAL ACCREDITATION

3.11.2 DEPARTMENT ADMINISTRATIVE STRUCTURE COMPARED

3.11.3 OTHER DEGREE PROGRAMS OFFERED BY THE DEPARTMENT

3.12 PROFESSIONAL DEGREES AND CURRICULUM

3.12.1 TITLES OF DEGREES OFFERED

3.12.2 AN OUTLINE FOR EACH ACCREDITED DEGREE PROGRAM OF THE CURRICULUM

3.12.3 CURRENT COURSES IN THE CATALOG, WITH NOTES RELATED TO

2009 CALENDAR YEAR ELECTIVES

3.12.4 CONCURRENT DEGREE PROGRAMS STUDENTS MAY ELECT TO PURSUE

3.12.5 OFF-CAMPUS PROGRAM

3.13 STUDENT PERFORMANCE CRITERIA

3.13.1 MATRIX 1 - REQUIRED COURSES

3.13.2 MATRIX 2 - ALL COURSES AND THE PERFORMANCE CRITERIA FULFILLED

NOTES & REFERENCES

4. SUPPLEMENTAL

4.1 STUDENT PROGRESS EVALUATION PROCEDURES

4.2 STUDIO CULTURE POLICY

4.3 COURSE DESCRIPTIONS

4.4 FACULTY AND STAFF RESUMES

4.4.1 TENURED AND TENURE-TRACK FACULTY / RÉSUMÉS

4.4.2 CONTINUING LECTURER / ADJUNCT RÉSUMÉS

4.5 VISITING TEAM REPORT FROM THE PREVIOUS VISIT

4.6 ANNUAL REPORTS

4.7 SCHOOL CATALOG

4.8 NAAB RESPONSES TO THE ANNUAL REPORTS
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1. INTRODUCTION TO THE PROGRAM

1.1 HISTORY AND DESCRIPTION OF THE INSTITUTION ................................................................. 7
1.2 INSTITUTIONAL MISSION ....................................................................................................... 11
1.3 PROGRAM HISTORY ............................................................................................................. 13
1.4 PROGRAM MISSION ............................................................................................................ 15
1.5 PROGRAM SELF-ASSESSMENT ........................................................................................... 16
1. INTRODUCTION TO THE PROGRAM

1.1 HISTORY AND DESCRIPTION OF THE INSTITUTION

Our institution was established in 1869. As the oldest and the largest campus in the University of California system, we are considered its flagship. The University of California Berkeley is a state-chartered and partially state-supported institution. At the time of this writing, the President of the ten-campus University of California system is Mark G. Yudof, who is directly answerable to a 26-member Board of Regents appointed by our Governor, Arnold Schwarzenegger. The Chancellor of our campus is Robert J. Birgeneau. The Executive Vice Chancellor and Provost is George W. Breslauer.

The many and varied California public institutions of higher learning, which include all the campuses in the University of California system, 23 campuses in the California State University system and 110 community colleges, are organized under a structure set forth in the State of California’s Master Plan for Higher Education from 1960 – nearly half a century ago – which identified differing functions for each tier in the system. The University of California was charged with emphasizing graduate and professional education and given the sole authority to award doctoral degrees. In the Fall of 2008 (the most recent semester for which we have statistics), there were slightly more than 35,000 students studying at UC Berkeley. Greater than 10,000 graduate students are on our campus on a typical semester. In the 2007-2008 academic year, UC Berkeley awarded 6,960 Bachelor’s degrees; 2,406 Master’s degrees; and 865 Doctorates and PhDs. UC Berkeley awards more Ph.D.s annually than any other university in the United States.

Our students benefit from their access to internationally-renowned faculty throughout the campus, in disciplines such as engineering, business, law, environmental economics and policy, and art history, but also in less obvious areas like Chinese language, and “Peace and Conflict Resolution.” The 2,131 faculty on our campus are organized into more than 130 academic departments and over 80 interdisciplinary research units. UC Berkeley ranks first nationally in the number of graduate programs in the top ten in their fields, according to the most recent National Research Council study. In the study, 35 of Berkeley’s 36 graduate programs ranked in the top ten in their fields in terms of faculty competence and achievement; a third are ranked in the top five. These statistics are evidence of Berkeley’s extraordinary “breadth and depth”.

1. Introduction to the Program
There are also eight museums and a multitude of field stations supporting research efforts. Faculty appointments often overlap, individuals associated with multiple complementary components of the campus. Cutting-edge theoretical developments at the Earthquake Engineering Research Center, the U.S. Department of Energy’s Lawrence Berkeley National Laboratories (managed by our university), the Center for the Built Environment, the Doreen B. Townsend Center for the Humanities, and numerous other research centers influence our daily discourse.

We are a wellspring of innovation. In 2006, the UC system as a whole, for example, accounted for a total of 410 patents – followed by MIT with 139, California Institute of Technology (“CalTech”) with 115, the University of Texas with 107, 101 to the Wisconsin Alumni Research Foundation, and Stanford with 98. Twenty-one Nobel Prize Laureates have taught on our campus since 1901, when it was first awarded; eight Nobel Laureates are still actively associated with Berkeley, including Steven Chu, the current U.S. Secretary of Energy and 2009 Laureate Professor Emeritus Oliver E. Williamson. Three hundred and fifty nine faculty have received Guggenheim Fellowships and seventy-four have been Fulbright Scholars; members of our department have received both of these two prestigious awards in the last decade.

We have a tradition not only of innovation, but also of embracing unconventional ideas that ultimately influence the nation and the world. In 1887, faculty on our campus set up the Western Hemisphere’s first string of seismographical stations, at a time when scientific understanding of earth movement was still very much in its infancy. In 1892, founding members of our faculty established the Sierra Club, which ultimately influenced the development of a National Parks system. Those antecedents of scientific innovation and influence on public policy and popular opinion are still seen today across our campus. Our campus also has a tradition of advocacy. Berkeley ranks first in the nation in alumni who have served in the Peace Corps.

- “A deep interest in social welfare drives the pioneering research of Nobel Laureate Daniel McFadden. McFadden ushered Berkeley’s Nobel tradition into the 21st century when his econometric methods for studying behavioral patterns in decision making were recognized. Applications of McFadden’s statistical tools include predicting the BART’s initial ridership and measuring the economic damage to individuals from an oil spill.”

- Professor Kris Pister of the Robotic Lab “…has taken the theory of microscopic wireless sensors and made it a reality with vast potential. He has figured out how to build millimeter-sized computers that can detect anything from light and heat to temperature and vibrations, and send that information on. The sensors—collectively, “smart dust”—have endless potential. They could monitor the humidity and temperature … of each individual office in a 50-story building, increasing comfort and saving power.”

- “Thanks to Associate Professor of Chemistry Peidong Yang, we may soon channel sunlight to power everything from houses to laptops. The technology is solar paint, an external coating made from layers of nanoparticle solar cells.”
1. Introduction to the Program

• Berkeley’s Active Tectonics Research Group is developing a technique, the Interferomic Synthetic Aperture Radar, which they hope will reliably predict earthquakes.6

• “Bozidar Stojadinovic, Associate Professor of Civil and Environmental Engineering, is working on a computer system that can collect sensor readings from a building after an earthquake, analyze them, and provide an overview of the building’s structural state.”7

The university has long encouraged scholarship regardless of our students’ wherewithal; as early as 1897, financial aid was available for the ‘needy and deserving.’ More than a century later, UC Berkeley remains committed to broad access for students from all strata of society — educating more federal Pell Grant recipients, who come from low-income families, than all eight Ivy League universities combined. Nearly one third of our students receive Pell Grants; our impact on upward social mobility (and its benefits to society as a whole) was a reason that the 2009 Washington Monthly College Guide ranked UC Berkeley first in the nation, above any other universities, private or public – followed by two other UC campuses. You can see the Times scores at:  http://www.timeshighereducation.co.uk/Rankings2009-Top200.html]

Out of step with the era of our founding, women were admitted to our university without restriction or quota from its earliest years. One of those early women, Lillian Moller Gilbreth, received her B.A. from UC Berkeley in 1900 and an M.A. in 1902. A pioneer in the field of motion studies — and using language no longer acceptable today — Gilbreth was also an early advocate for accessibility, authoring Motion Study for the Handicapped and “Putting the Cripple on the Payroll.” The International House, opened in 1930, was the first co-ed, interracial college residence west of the Mississippi River. A 1996 ballot measure prohibited our university from considering race in admissions, causing a radical transformation in the character of our campus. By 2008, 40.8 percent of all students on our campus were Asian Americans, now our largest ethnic group, followed by whites at 40 percent.8 (Asians as a whole make up 46 percent of the campus population.)9 Many of our students are first- or second-generation immigrants. Our unusually diverse undergraduates go on to contribute significantly to the diversity of professional graduate schools throughout the nation.

As a university, we endeavor – first and foremost – to educate the students of our state; undergraduate enrollment of out-of-state and international students has until recently been limited to only ten percent of the population. This will most likely increase in the years ahead as we move, inevitably, to a hybrid model with greater reliance on private, out-of-state sources of support to compensate for declining state funding. Already today, California hosts more international students than any other state; architecture is one of the top five
majors for undergraduates from abroad on our campus, though the official statistics for international students (which do not include our many students whose families have immigrated to the U.S.) are small.\textsuperscript{10}

Our graduate and professional schools already play a proportionally high role in educating the world, with 18 percent of graduate students on the UC Berkeley campus from outside the U.S. The greatest number of international students seeking degrees come from the Asian continent: South Korea, China, and India – followed in numerical rankings by Canada to the north and then back to Asia: Taiwan, Japan, Singapore, Hong Kong, and Indonesia.\textsuperscript{11}

**RECENT ECONOMIC CHANGES**

Today, we find ourselves in the midst of an economic transition of historic consequence. Because of the ongoing financial crises in State funding over the last 20 years, the Campus has had no alternative but to transition, reluctantly, from a largely (85%) publically funded institution to an increasingly private, hybrid financial model. During this period, State support has fallen from (85%) of the annual budget in (1990) to (23%) in 2009/10 with an additional 20-25% cut in State funding anticipated for fiscal 2010/11.

The Campus has responded vigorously to this challenge through an aggressive fundraising campaign for endowed chairs and student support. The total Campus endowment has grown from ($133m) in 1990 to ($561m) in 2009. Unfortunately, the Campus has also had to raise student fees from ($2,400) per year in 1990 to ($7,000) in 2009/10 in order to maintain excellence. While the proportion of State support has dropped precipitously, it is still a significant component in the campus budget; thus, reductions in State funding have a real impact on staff support, operating budgets and academic planning.

The recent cycle of budget cuts has been particularly severe, forcing staff layoffs, program consolidation and efficiencies, faculty salary cuts by furlough (averaging 8%), a slower rate of faculty replacement and the highest increase in student fees (30%) approved for next year.

In spite of these hardships, the faculty and Campus have responded creatively by focusing on our core mission, rethinking teaching loads, rallying alumni support and fundraising, instituting Professional Differential Fees for appropriate Professional Schools and seeking additional forms of income aligned with our programs’ goals. UC Berkeley is a jewel in the crown of public higher education. We, as educators and innovators, are committed to maintaining and enhancing its excellence – as demanding as the current situation may be.
1.2 INSTITUTIONAL MISSION

The University's fundamental missions are teaching, research and public service, but at UC Berkeley there is a remarkable tradition of using these fundamental modes of inquiry to tackle the biggest challenges facing society with new knowledge and innovation.

WE TEACH - educating students at all levels, from undergraduate to the most advanced graduate level. Undergraduate programs are available to all eligible California high-school graduates and community college transfer students who wish to attend the University of California. Instructional programs at the undergraduate level transmit knowledge and skills to students. At the graduate level, students experience with their instructors the processes of developing and testing new hypotheses and fresh interpretations of knowledge. Education for professional careers, grounded in understanding of relevant sciences, literature and research methods, provides individuals with the tools to continue intellectual development over a lifetime and to contribute to the needs of a changing society. Through our academic programs, UC helps create an educated workforce that keeps the California economy competitive. And, through University Extension, with a half-million enrollments annually, UC provides continuing education for Californians to improve their job skills and enhance the quality of their lives.

WE DO RESEARCH - by some of the world's best researchers and brightest students in hundreds of disciplines at its campuses, national laboratories, medical centers and other research facilities around the state. UC provides a unique environment in which leading scholars and promising students strive together to expand fundamental knowledge of human nature, society, and the natural world. Its basic research programs yield a multitude of benefits for California: billions of tax dollars, economic growth through the creation of new products, technologies, jobs, companies and even new industries, agricultural productivity, advances in health care, improvements in the quality of life. UC's research has been vital in the establishment of the Internet and the semiconductor, software and biotechnology industries in California, making substantial economic and social contributions.
WE PROVIDE PUBLIC SERVICE, which dates back to UC’s origins as a land grant institution in the 1860s. Today, through its public service programs and industry partnerships, UC disseminates research results and translates scientific discoveries into practical knowledge and technological innovations that benefit California and the nation. UC’s agricultural extension programs serve hundreds of thousands of Californians in every county in the state. Open to all Californians, UC’s libraries, museums, performing arts spaces, gardens and science centers are valuable public resources and community gathering places.

The University’s active involvement in public-school partnerships and professional development institutes help strengthen the expertise of teachers and the academic achievement of students in communities throughout California. The University of California’s mission is published at:
http://www.universityofcalifornia.edu/aboutuc/mission.html

The Office of the President informs us that it dates to the 1974-1978 Academic Plan.
1.3 PROGRAM HISTORY

Limited instruction in architecture began in Berkeley in 1884 under the direction of Bernard Maybeck. In 1903, John Galen Howard, selected to be the supervising architect charged with realizing the Campus Plan chosen by the 1900 International Beaux Arts Competition sponsored by Phoebe Hearst, established an atelier next to his office. In 1913, this atelier was moved to a new building, and the School of Architecture was formally established, later becoming a department in the College of Letters and Science. In 1953, in recognition of architecture’s professional status, the College of Architecture was founded under the direction of William Wurster.

The history of our college began in 1950, when then-President Sproul had requested a review of the Department of City and Regional Planning, suggesting its possible consolidation with other departments. In 1952, a review committee, chaired by Professor T.J. Kent, Jr., with support from Professor Wurster, recommended that the university establish “a new College of Planning and Design.” A second committee, including Professor L. Vaughan of Landscape Architecture, Professor Francis Violich of Landscape Architecture and City and Regional Planning and Professor Vernon DeMars of Architecture, explored the feasibility of this recommendation. In 1957, a formal proposal for a “College of Environmental Design” was made to the university. The proposal was accepted in April 1959, with Architecture becoming a department of the College of Environmental Design in the fall of the year. In 1965, the college and the department moved to its new building, William and Catherine Bauer Wurster Hall.

Also in 1964, the department chose to phase out the five-year Bachelor of Architecture degree program and to replace it with a liberal arts four-year Bachelor of Arts in Architecture, and a Master of Architecture degree program as its professional program. This program is organized in three options: Option III, three years, for students with degrees in fields other than architecture (degree + 3 program); Option II, two years, for students with an A.B. degree with a major in architecture (4 + 2 program); and Option I, one year and non-accredited, for students with a previous professional degree in architecture. Options II and III have been continuously accredited since they were established.
In 2000, an extensive renovation of Wurster Hall began to seismically upgrade the building. All departments were relocated throughout the campus. In the Spring of 2003, we re-occupied Wurster Hall and in the following Fall we had our last Visiting Team followed by the Focused Evaluation Team in 2007.

The academic history of any architecture program is a summary of the teaching, research/creative production and service of each individual faculty member. Nonetheless, it is not uncommon to have specific themes and traditions emerge which come to be identified with programs as a whole. So it is with the Department of Architecture at Berkeley. From the founding of the College, the Department has conceived of its mission as bringing research and design together to provide “a synthesis of ...the functional and aesthetic qualities of our surroundings”. (Wurster) We design and write and are written about.

- The Department has long been associated with the social activism of the sixties, leading to research and design activism which focuses on improving the quality of peoples’ everyday lives, recognizing the diversity of voices and needs from farm-worker housing to housing for the homeless to design for accessibility. The research and design in social factors and ethnography are seen as important forms of advocacy and a catalyst for social change.

- A concern for process, from design through fabrication and construction, has informed the work of designers and researchers from the Department’s inception – currently leading to the exploration of digital form generation, new materials, fabrication techniques (including digital), and an analysis of construction systems. The tradition makes ‘process’ a part of the design imagination with the goal of enhancing design and performance.

- Unparalleled strengths in building science have focused on the performance of buildings through integrating the design of the building envelope and environmental systems with an emphasis on empirical performance of both energy and human satisfaction. This focus on empirical evaluation has led to groundbreaking research in studies of thermal comfort, dynamic facades, and innovative environmental control systems. The integration of building science and human response provides a robust perspective on how to provide measures of sustainability leading to innovative whole systems designs.

- The Department’s teaching of architecture history has transformed the discipline by insisting on a more international canon, teaching not only the formal/spatial qualities of buildings, but also the cultural, social and economic context and the technical processes, which enabled their construction. This tradition provides a more rich and complete range of precedents, from high art to everyday cultural landscapes, expanding students’ design imagination.
1.4 PROGRAM MISSION

Our mission in the Master of Architecture program at Berkeley is to further the critical position of architecture within a larger cultural framework. We engage this mission through the integration of a rigorous professional education with other disciplinary pursuits. * Thus we seek to advance and expand the concerns of the profession, even as we prepare our students to operate successfully within it.

It is important to us that our students ask questions as well as answer them. We are constantly seeking to improve our curriculum, such that research disciplines, design exploration, and cultural inquiry intersect in provocative ways. We want our students to be agile in their ability to adapt to changing professional requirements, but also cognizant of their own systems of values. We want them to be as willing to propose as to react, and open to the increasing rate of change in architecture’s ways and means. The increasingly complicated challenges that cross and intersect the arenas of ecology, politics, economy, technology and aesthetics demand this fluid approach to architectural education.

It is also part of our mission to make sure that students engage the other intellectual resources both within the College of Environmental Design, and across this great public research university campus. We encourage interaction with the PhD students within the department, with students and faculty in the departments of Landscape Architecture and City Planning, and across the university. Our relatively open curriculum allows students the opportunity to take classes outside the department.

At the heart of our mission is the development of students’ awareness of built space in all its aesthetic dimensions and at a multiplicity of scales, its physical parameters in a larger context of environmental stewardship, and its consequences for social and political frameworks both locally and globally.

(This mission statement was revised by the M.Arch Committee on October 25, 2009, and endorsed by the Department on November 30, 2009)

*These disciplinary pursuits reflect the diversity and expertise of our faculty, and include:
- The social and political frameworks in which the design enterprise takes place
- Tools to analyze energy and environmental performance of architectural systems
- Developing technologies in sustainable materials
- Emerging and experimental applications of digital technologies
- Critical theory as a lens through which to engage design practice
1.5 PROGRAM SELF-ASSESSMENT

We believe that education occurs in the classroom and in a critical response to the world around us. Our faculty approaches the discipline and the profession from a variety of intellectual outlooks; we attempt to balance support for a student’s individual growth and insight with the overall mission of our larger academic community. Our graduates thus absorb and reflect a multiplicity of values: aesthetic, social, and ethical. They go on to become leaders in practice— as registered architects, as influential consultants in engineering and technical roles, as innovative educators in accredited institutions here at home and elsewhere around the world, and as individuals who shape public policy and practice through their social activism.

Our program has a long history, and a depth of purpose that links many academic disciplines with the design mission. Several of our long-standing areas of emphasis have grown and evolved in recent years, in correspondence with emerging political and technological developments. We are in the midst of both synthetic and new initiatives that draw upon these strengths; at the same time we are searching for new modes of support for our program, in this period of decreasing resources. The following sections describe our recent program innovations, our ongoing intellectual and curriculum strengths, the challenges currently facing the department, and our strategic plan for the future.

1.5.1 PROGRAM STRENGTHS

Over the past few years, several new and significant themes have emerged within the M.Arch curriculum. They are at once the product of larger developments in culture and technology, and of the additions of individual faculty to the department. In spite of a diminished number of faculty over the past decade, there is the emergence of themes that inspire current and future collaborations in teaching and research; these themes are thus finding intersections in new classes and new initiatives. The themes include: international contexts for architectural study; design and policy in support of urban ecology; workshops in materials research; emerging applications for digital design, and design-build studios. Other innovations in the department are related to continuing strengths: opportunities for research, recognition for creative work, teaching opportunities, engagement with the professional community of California, and cross-disciplinary team-teaching.
INTERNATIONAL CONTEXTS FOR ARCHITECTURAL STUDY

In the last ten years, the Department has used endowments to substantially subsidize student travel for design studios based on international sites and reflecting global trends in architectural practice. Even in today’s economically constrained times, we are able offer students rich educational experiences that recognize the diverse cultures or the world. Through a variety of funding sources, individual studios and seminars over the last few years have traveled to China, Japan, Brazil, Mexico, Thailand, and Argentina with Professors Nezar AlSayyad, Dana Buntrock, Raveevarn Choksombatchai, Renee Chow, René Davids, and Harrison Fraker. These international studios often reflect and support faculty members’ creative production as well as students’ educational goals. (For a more complete discussion of student opportunities in this area, see Section 3.7.5 “Student Participation in Off-Campus activities.”) Particular examples of international study include:

• The entering class of students in our three-year M.Arch program (in its Spring studio, 200B) travels with faculty for a two-week period over Spring Break, subsidized by the Department through endowments. Most often, these trips have been to Europe and reflect an urban orientation, allowing students to understand buildings in a broad international context. In both 2007 and 2008, students traveled to Venice with Nicholas de Monchaux; they also traveled to Paris and Rome in 2008.

• In 2006, Dana Buntrock and René Davids also arranged for studios here in Berkeley to be taught by professionals from Japan and South America. These were supported by the Friedman funds; the effort to bring practitioners from abroad was temporarily suspended while the conditions of the award were reviewed. Recent agreements with the Friedman family make us optimistic that there will be further examples of such opportunities in the future, allowing us to complement the primary intention of the Friedman support, which continues to be a desire to bring California-based architects into the classroom. The complete list of Friedman Fellows is included in Section 3.1.4, “Architectural Education and the

• Renee Chow has taken Arch 201 studio groups to China four times in the period under review, often working in collaboration with local universities. In Spring 2004, Chow’s studio collaborated with Tongji University, traveling to Zhujiajiao, a canal village outside Shanghai. (Former Dean Harrison Fraker returned to Tongji University with a new group of students in Spring 2007.) A year and a half later, in Fall 2005, Chow brought a studio to Shanghai in parallel with another M.Arch studio from Hong Kong University. In Fall 2006, Chow and students worked in Tianjin, the port city of Beijing, collaborating with Tianjin Institute for Urban Construction and the Tianjin Art College, and in Fall 2007, she returned to Zhujiajiao with a studio group. In these trips, Chow emphasizes the relationship between the city fabric and architecture, with a heightened awareness derived from comparisons between Western and non-Western traditions. Students are introduced to both vernacular and contemporary architecture. The mixed-use, large-scale developments students observe in China are unlike those in established cities in the developed world, and these experiences prepare graduates for global practice. The studios’ work, along with that of Chow’s professional practice, were exhibited at the Hong Kong Shenzhen Bi-City Biennial on Architecture and Urbanism in Hong Kong from January to March of 2008. The work of the studios only was again exhibited from August - September 2009 in the Beijing Urban Planning Centre, an exhibit curated by the USC American Academy in China. The costs of student and faculty travel for these studios were significantly subsidized by Departmental funding and discretionary support linked to the endowed chair Chow holds, with only modest costs to students.

• René Davids has taken M.Arch students to Central and South America in three consecutive semesters. The first was a Spring 2007 Arch 201 called the “MXDF” Studio, involving students not only from UC Berkeley, but also those from the California College of the Arts and Universidad Iberoamericana. During a trip to Mexico, “Students were asked to research Mexican culture,
artists, and architects; study precedents; create films; and collect rubbings and photographs of the building / construction site in Mexico. They were also required to draw and research twenty pieces displayed at the Anthropology Museum in Mexico City…"13 Student work was exhibited in the Main Gallery of the Consulate of Mexico, San Francisco and at the Universidad Iberoamericana. A bound book is available on this work and it can be seen on a Course Gallery at: http://arch.ced.berkeley.edu/courses/gallery/arch201-sp07-davids

• In Spring 2008, Davids brought his studio to São Paulo, Brazil. On a web site summarizing the course,14 Davids outlined its objectives:
  - to analyze and understand the forces that created the São Paulo megalopolis;
  - to contribute ideas to São Paulo’s latest reform efforts and participate in the awakened interest in ecological issues and the relationship between nature, topography, the city and its people;
  - to visit some of Brazil’s Modernist masterpieces;
  - to re-enforce the links between the department of architecture at U.C. Berkeley and the University of São Paulo, Mckenzie University in Rio and peoples of the Americas.

• In the Spring 2009, Davids and his M.Arch students based their investigations in Buenos Aires, Argentina, “[c]ontinuing the investigation of the relationships between architecture, infrastructure and urban waterways previously explored in Xochimilco, Mexico and in the Tamanduatei River Basin in São Paulo, Brazil…”15 Students in this studio used Flickr to share photography and produced short, skillful movies (now available on YouTube) that acted as their own critical problem statements for their goals. These films and their subsequent design projects can be seen on the Course Gallery at http://www.ced.berkeley.edu/courses/sp09/arch201/davids/

ARCHITECTURE, POLICY AND URBAN ECOLOGY

Our department is connected to the growing national and international efforts to integrate broader social, ecological and political agendas into the architecture curriculum. There are a number of recent courses, both studios and seminars that address aspects of zoning, biodiversity, urban water supply, public process and financing in relation to the design of the built environment. New initiatives at the College level promise to bring together faculty from the three departments to design new offerings that integrate these issues into the design studio. Recent offerings in the M.Arch curriculum include:

• Mark Anderson’s studio in Fall 2008, “Refugio San Francisco,” explored the introduction of animal habitats into the city, as both ecological and aesthetic responses to intensive research on ideal species habitats and localized site analysis.

• Nicholas de Monchaux and Jill Stoner offer graduate studios that emphasize the use and reuse of underclaimed sites. In de Monchaux’s studio, the students formulate policies to engage San Francisco’s ‘unaccepted streets.’ In Stoner’s, they analyze patterns of vacancy and propose jobs programs to dismantle underused paved surfaces and return the ground to a permeable condition. They also draft policy proposals for returning elements of the corporate landscape to public use.

• M.Arch students are increasing choosing themes in urban ecology as their thesis subjects. These thesis projects often include faculty advisors from the Department of Landscape Architecture, and address such issues as urban agriculture, adaptive reuse, new modes of infrastructure for urban energy production, aspects of design connected to urban health, issues of water reclamation in cities, and the reintroduction of natural elements to the urban landscape.
MATERIAL AND BUILDING SUSTAINABILITY

In recent years, concerns about sustainability have been increasingly a focus of design studio projects and construction technology seminars in the M.Arch. sequence. Susan Ubbelohde, Raveevarn Choksombatchai, René Davids, Jill Stoner, Renee Chow, Harrison Fraker, Paz Gutierrez, Mark Anderson, and Ron Rael have all offered design studios dealing with issues of sustainability at various scales, including urban infrastructure and a range of technology applications driving sustainability options in building design, city development, preservation or reconstruction of natural landscapes. With particular regard to materials, in the 269X construction courses Mark Anderson and Ron Rael have both worked with M.Arch students in exploring sustainability issues in fine scale, hands-on technology experiments.

- Mark Anderson has taught several 269X workshop courses in which students have worked in “sub-contractor” teams to build relatively complex structures. Most recently, mark’s students built a large rainwater catchment and water filtration system constructed entirely of discarded plastic bottles. The project is intended as a prototype for under-developed locations with limited resources and urgent need for potable water. A previous project involved the construction of a prototype emergency housing structure that could protect 12 people as well as provide water catchment and filtration of waste water for re-use, in order to afford longer term self-sufficiency in disaster situations.

- Ron Rael has conducted a series of hands-on construction technology workshop projects with M.Arch students, focusing on research and experimentation applying new digital fabrication tools in prototyping sustainable material building components, primarily cast from traditional earth and clay materials. These workshops have produced remarkably creative and functional results with clay-based modular construction components shaped to provide multi-functional performance including water catchment and habitat for plants and animals. Students in these workshops have learned to integrate and apply new tools and interests in advanced design geometries to basic issues of construction material sustainability.

SUSTAINABILITY AND BUILDING PERFORMANCE

Berkeley has long been recognized as a leader in teaching and research related to issues of sustainability, with a particular focus on energy and environmental quality. In all the classes, there is a strong emphasis on the connection between design decisions and the performance of buildings in operation. Students engage in a variety of exercises that combine methods of design, physical monitoring and observation in real buildings, experimentation, and simulation. Just a few examples of our offerings include:

- Gail Brager’s ARCH 243, Natural Cooling and Sustainable Design, focuses on how one can design for zero and low-energy cooling in both residential and commercial scale buildings, focusing on person-centric design approaches that give users a role in controlling their own environments. In addition to case studies, design, and analysis exercises, students also have the opportunity to use the Building Science Wind Tunnel to build models and explore design solutions for natural ventilation.

- Cris Benton’s ARCH 244, The Secret Life of Buildings, is structured around a series of field assignments that engage students in direct experience with how buildings work. Students ask and test critical questions about the relationship between architectural, lighting and mechanical systems in existing buildings, with attention to energy use, occupant well-being, and architectural spacemaking. Personal experiences are compared to physical data, and simulation tool results, to better understand the foundation for understanding the more abstract tools and standards used by designers in practice.
1. Introduction to the Program

• In another class taught by Cris Benton, ARCH 245, Daylighting, students utilize experiential and photographic exercises, and physical models, to explore a series of increasingly complex issues regarding daylighting in architectural space. Architectural issues include perception, vision, daylighting techniques, precedents and codes.

• Susan Ubbelohde teaches ARCH 249, High Performance Facades, in collaboration with researchers from the Building Technologies Dept of Lawrence Berkeley National Laboratory. In this class, students explore whether the aesthetics of transparency are necessarily in conflict with thermal and visual performance of the building skin. They define criteria for high performing buildings, and then engage in an iterative process of design exercises that evaluate and redesign for energy use, human comfort, amenities, and practice.

EMERGING APPLICATIONS OF DIGITAL MEDIA

Beginning with the hiring of Lisa Iwamoto and Mark Anderson in 2001, and the subsequent hires of Nicholas de Monchaux, Paz Gutierrez, Ron Rael and Kyle Steinfeld, the department has continued to pursue the addition of faculty at the cutting edge of digital media. In this rapidly changing field, we have been consistent in bringing to our students new talent and new opportunities for inquiry. Each of these faculty has been awarded ‘start-up’ funds as part of the hiring package, and has used these funds to purchase relevant and up-to-date hardware for the department’s use. Several are active liaisons with the Berkeley Center for New Media, which effectively increases the resources available to our students. Examples of recent initiatives include:

• In two recent advanced studios, and in the current year’s group research alternative to the design thesis, Nicholas de Monchaux has been developing methodologies and applications for urban-scale GIS analysis in the generation and manipulation of architectural form. The first stage of this research, which focused on the discovery and utilization of leftover urban spaces in San Francisco and other cities, was recently featured as a finalist in the national “WPA 2.0” competition sponsored by UCLA’s citylab (http://wpa2.aud.ucla.edu). The current stage of research, advanced as part of this year’s thesis-level work, examines the possibilities presented by location-based optimization for low-energy prefabricated housing, specifically addressing the creation of density in suburban landscapes.

• Paz Gutierrez’s studios develop experimental models of environmental building systems addressing new scales of analysis and “associative parametrics”. The exercises provide a critical and integrative overview of complex interdisciplinary data analysis and the rise of scripting in architecture beyond geometrical analysis. The parametric integrative models incorporate bio-physics & environmental data to develop multi-disciplinary visualization datasets that can inform design strategies that respond to these forces.

• The recent hire of Assistant Professor Kyle Steinfeld (starting Fall 2010) promises new initiatives in digital design instruction and research. His aim is to ensure that students are not only able to explore a range of formal devices offered by computational methods, but are able to fully embrace the potential for creativity that computational methods offer, and are able to understand the cultural positions engendered by them as well. To that end, he has proposed to develop an entire digital design curriculum that is tightly integrated with the teaching of architecture. Such an integrated approach will ensure that the teaching of design tools is not disassociated from the context of the architectural design studio, and that students can understand the technology’s social, cultural, and formal implications for the design process.
DESIGN-BUILD STUDIOS

Design-build studios give students the opportunity to engage with real clients, produce contract documents, the necessity of collaboration with colleagues, meeting with engineering consultants and other advisory professionals, and the budgeting of materials and time. These studios require intensive faculty preparation and a greater than usual commitment of time, and are not offered on a regular basis. We would like to find sponsorships for these studios that made them a more consistent part of the curriculum. Here are examples of design-build studios offered over the past six years:

- In Spring 2005 and 2006, Mark Anderson led seminars (ARCH 269X) involving the development of small portable structures: Hot-White Orange in 2005 and LifeBean in 2006. These were extremely well received by the profession and media. LifeBean was given a $2500 prize for best group project in the 2006 competition 2x8.SWELL, sponsored by the AIA Los Angeles Chapter, and both structures were selected for exhibition at the Architecture + Design Museum in Los Angeles during the summer of 2006. Hot-White Orange also received a design award from I.D. Magazine in 2006 and was published in the Annual I.D. Design Awards issue of the magazine. A photo of Hot White Orange was additionally published in the Journal of Architectural Education as part of a discussion of the value of designing and building installations in students’ education. Both projects were also exhibited at the University of Texas Dallas Gallery in 2008.

- In Spring 2004, in Anderson’s ARCH 201, students worked as a group to design and build four components for the alternative learning programs at the Tinkers’ Workshop, offered to at-risk and disadvantage youth from Oakland and Berkeley. These components were massive rammed earth walls; a rammed earth stage for performances and events; concrete work slabs; and a security fence made of salvaged bicycle parts.

- Jill Stoner has offered two studios that engaged actual clients and resulted in small built projects. The first, a set of interior additions to an apartment building in Berkeley, into which students constructed small interventions in the public zones of the building. These included elements added at the ends of corridors, in laundry rooms, and on balconies. The process included all five phases of architectural design, and concluded in a one-week construction period supervised by the building developer, who is a former M.Arch graduate. The second, a set of outdoor additions to the Don Edwards Nature Preserve, also proceeded through design development, construction documents and construction. Initial proposals were submitted to the staff of the refuge for approval.

- Stoner also supervised a thesis project that resulted in a constructed project at a public school in Oakland.

OPPORTUNITIES FOR RESEARCH

The range and quality of faculty research is described more fully in Section 3.1.1 (Architectural Education and the Academic Context). Our M.Arch students participate fully in important and influential research, often in topic-specific studios and seminars and also as Graduate Student Researchers (GSRs). In the years between 2004 and 2009, there were 174 distinct Graduate Student Researcher hires, involving M.Arch, M.S., and Ph.D. students, often working together. Examples specifically demonstrating how our research is evidenced in graduate student work include:
• Studios regularly engage in landscapes and cultures throughout the world, and many of these deliberately engage issues of sustainability (as seen in studios in India offered by Nezar AlSayyad and Susan Ubbelohde or China, offered by Harrison Fraker) or new models of large-scale development (Renee Chow in China). In each of these, the faculty used the M.Arch studios as a means to test and transmit important theoretic positions related to their work here in Berkeley.

• Cris Benton’s regularly offered and extremely popular seminar Arch 244, The Secret Life of Buildings, conducts a series of case study exercises involving the collection of background information, survey of those associated with a building (e.g. designers, operators, occupants), measurement of physical parameters, analysis, and writing reports. Students examine architectural, lighting, and mechanical systems in existing buildings with attention to energy use, occupant well-being, and architectural spacemaking.

• Through the study concentration entitled “Environmental Design and Urbanism in Developing Countries,” and related ties to the International Association for the Study of Traditional Environments (IASTE), directed until recently by Nezar AlSayyad, students conduct vital research on rapidly vanishing indigenous architecture and on the complex cultural ramifications of traditional environments becoming enmeshed in modern development. (More on this study concentration can be seen at http://arch.ced.berkeley.edu/areas/designdevcountrie

• Mary Comerio, teaching Arch 253, Seismic Design and Construction, and team-teaching with now-retired Stephen Tobriner in Arch 259X seminar offered opportunities for students to observe and assess the unfolding seismic retrofitting of our campus starting in the year 2000. With the assistance of Graduate Student Researcher Arianne Fehrenkamp (M.Arch ‘07 / Opt. 3) and research support from the Pacific Earthquake Engineering Research Center, the group produced a 2006 guide to the changes seen on campus, Bracing Berkeley: A Guide to Seismic Safety on the UC Berkeley Campus. In it, Tobriner rightly noted, “The campus in now a museum of the most advanced seismic retrofit and construction strategies employed in the late twentieth and early twenty-first centuries…”17

RECOGNITION FOR CREATIVE WORK

Our students and recent graduates regularly receive national and international recognition for their work, also acknowledged as innovative leaders. While student work clearly demonstrates our commitment to the basic nuts and bolts of the profession, we believe that the cutting-edge character of some of this work addresses the future of the profession, where our department has traditionally had its greatest impact. These are only a few examples of outside recognition for student work received very recently, of which we are understandably proud:

• Joe Pang (M.Arch ’09 / Opt. 2) was awarded Grand Prize in the 2x8:SHIFT 2009 competition organized by the AIA Los Angeles Chapter. The 2x8 Program recognizes and supports exemplary student work from architecture and design schools throughout California. Pang’s project, “Algae Air Purification System,” was developed during a Fall 2008 seminar, ARCH 269, Material Bio-Intelligence, taught by Assistant Professor Maria Paz Gutierrez. An exhibition of the 2x8:SHIFT entries was held at the Pacific Design Center in conjunction with WESTWEEK. Pang continued this work in his thesis.

• Son N. Nguyen (M.Arch ’07 / Opt. 1) received the Grand Prize for his “Unnatural Selections,” developed
under the guidance of Raveevarn Choksombatchai in the 2008 2x8:SKIN, organized by the AIA Los Angeles. Mark Pembroke’s (M.Arch ’07 / Opt. 3) thesis project, “Filling the Void: Addressing the Under-representation of Minorities in Architecture” received an award 2007 2x8:VERT.

- In the 2006 2x8: SWELL, the first year our department participated, UC Berkeley swept all the awards, with the work exhibited at the AIA National Convention. The $6000 Grand Prize went to collaborative work from Maybeck Fellow Georgina Huljich’s studio; works done in seminars taught by Mark Anderson, Lifebean and Hot-White Orange, were also acknowledged, with Lifebean winning a $2500 award for best group project. All three collaborative efforts were selected for a subsequent summer exhibition at the Museum of Architecture and Design in L.A.

- Alan Tse’s (M. Arch ’09 / Opt. 2) design for an Urban Food Market received a 2009 Bronze “Spark” Award, selected from 360 finalists. Tse’s work will be exhibited at the Autodesk Gallery in San Francisco, and then shown at Guangzhou Design Gallery in China in December. The work can also be seen at http://www.sparkawards.com/Galleries/09_Entries.htm?appid=2523 The model for this project is also one of thirteen finalists in the 2009 Open-Satellite Super Model Competition, and will go on display in Seattle in January for final judging. The design and presentation were developed in a Fall 2008 ARCH 201 Studio taught by René Davids, which traveled to São Paulo, Brazil. (International travel opportunities for studios and seminars are discussed in Section 3.7.5 Student Participation In Off-Campus Activities.)

- Natalia Echeverri’s thesis (M.Arch / Opt. 2 + MCP ’09) was selected for exhibition between September 2009 and January 2010 at the Fourth International Architecture Biennale in Rotterdam, The Netherlands. Hers was among 44 entries selected out of 160 submitted projects. Echeverri was also a 2008 Branner Traveling Fellow. (The fellowship is further discussed in Section 3.1.2, Architectural Education And The Students).

- Grant Chang, LEED AP (M. Arch ’07 / Opt. 3) redesigned the San Francisco Transbay Terminal for his thesis; it was published in Surface magazine’s 2007 “The 10th Annual Avant Guardian Issue” (no. 68) which included student work around the country. The design was also included in a local publication called TODO (June 2007, no. 18). Chang is now at SOM, working on a transit hub with office towers located in Shanghai.

- In 2007, UC Berkeley won the Urban Land Institute’s Gerald Hines Student Urban Design Competition, an award totaling $50,000. In the competition, graduate student teams comprising at least three disciplines have two weeks to devise a comprehensive design and development program for a real, large-scale site fraught with challenges and opportunities. The 2007 winning proposal, “Tectonics” engaged metamorphic processes in creating new landscapes by forming connections between disparate fragments of Los Angeles’ neighborhoods. The urban plan proposed flowing green spaces leading to a new park decked over railyards, and connecting to a greenway. This urban-scale swath of green space continued into the residential neighborhoods in Boyle Heights, up to Mariachi Plaza, which was redeveloped with residential rental and ownership units, both market-rate and affordable, built above neighborhood-scale retail spaces. The 2007 team included Aditi Rao (M.Arch / Opt. 3 + MCP ’08). Since the competition began in 2003, Berkeley teams were finalists in two other years: in 2006, with William Oren (M.Arch ’07 / Opt. 3) and in 2005, in a team that included students from Stanford, with Jeffery Carney (M.Arch / Opt. 2 + M.C.P. ’07).

- Marie Sorensen (M.Arch / Opt. 3 + M.C.P. ’07) and Jill Stoner were one of three teams to win the 2009 “Imagining Recovery” international competition, which coincided with the first 100 days of the Obama presidency. Sorensen was a Branner Fellow in 2006.

- Student work was selected for the first and one of the second place awards in the 2008 43rd Central Glass Architectural Design Competition: “Architecture Coexisting with World Heritage Sites;” co-sponsored by Shinkenchiku-sha; the annual international competition attracted 733 entries. The ¥2-million first place entry was designed by Professor René Davids, and Taylor Medlin (M.Arch ’10 / Opt. 2). One of two ¥300,000 second place prizes was also taken by graduates from the Department, Mizuki Osawa (B.A. ’06) and Chia Chieh “Jessica” Lee (B.A. ’06). Both teams’ work was published in Shinkenchiku and Japan Architect.

- In Spring 2009, Harini Rajaraman (M.Arch ‘10 / Opt. 2, chose to switch to Option 3), working in a 201 studio with Associate Professor Mark Anderson),
developed a design that was shortlisted for the Wildlife Design Competition, organized by Holbeck Urban Village, Leeds, England. The competition sought habitat designs to sustain dwindling populations of local house sparrows, swifts, insects, otter, butterflies, bees, and bats. Rajaraman’s Butterfly Pillow is a multi-layered haven for butterflies that responds to local climatic conditions, responding to the competition’s call to prove that “development of new homes for humans doesn’t have to mean eviction for animals.”

• “Water Border,” a paper and design proposal by Adriana Navarro-Sertich (M.Arch / Opt. 2 + MCP ’11), was accepted for inclusion in the proceedings Unspoken Borders: Ecologies of Inequality (University of Pennsylvania, 2009) and presented at a related Unspoken Borders Conference, sponsored by the PennDesign Black Student Association at the University of Pennsylvania in April 2009. The conference and publication included articles and design proposals from professionals in the fields of architecture, landscape architecture, urban design, and city planning addressing a range of topics related to race, class, and culture. Navarro-Sertich examined “the systems, infrastructure and design processes that create or perpetuate the socio-economic and environmental stratification of our society,” focusing on the hydro-politics of the U.S.-Mexico border as part of an ARCH 201 Studio with Ronald Rael. Navarro-Sertich was also awarded a 2010 Branner Fellowship.

• The 2007 “Next Generation” competition, sponsored by Metropolis Magazine, was won by Anton Willis (M.Arch ’07 / Opt. 3), working with Catherine “Kate” Lydon (M.Arch ’07 / Opt. 3) and others. Their proposal, lunar-resonant streetlights, was initially developed by Willis in his M.Arch thesis, and has since been featured in the New York Times, in the Buckminster Fuller Challenge, shown on the Discovery Channel, discussed on NPR, and widely published online.

TEACHING OPPORTUNITIES

We regard our M.Arch students as both designers and scholars, and this is evident not only in our support for their research, but also for their teaching; many of our large undergraduate classes rely on Graduate Student Instructors (GSIs) as part of the teaching team. Unlike the norms elsewhere for a teaching assistant, our GSIs operate with a high degree of autonomy and independent authority. These GSIs are crucial to our large undergraduate program; the teaching positions are also important assets within our college because they support graduate students financially in addition to inspiring them intellectually.

• Even with recent budget setbacks, we have been diligent in retaining as many Graduate Student Instructor positions as possible. GSIs support our teaching in construction, structures, building science, social and cultural factors, the use of digital tools, and in undergraduate studios. In 2008-2009, seventy-two students in the M.Arch, M.S. and Ph.D. programs were GSIs, with appointments ranging from 0.25 FTE to .40 FTE.

• Mentorship is crucial to the Graduate Student Instructors’ effectiveness. In addition to working closely with the head of the teaching team, both the campus and the Department require all Graduate Student Instructors to undergo pedagogical training in a class called ARCH 300, Seminar in the Teaching of Architecture. This is further discussed in Section 3.4.1 Social Equity In The Graduate Programs.

• In addition, all students on campus, whether freshmen or finishing a dissertation, are able to propose and teach one- or two-credit pass-fail classes without prerequisites, through a program casually referred to as DeCal (short for “Democratic Education at Cal”). The system offers classes both silly and serious, each one supervised by a member of the faculty. In both Spring and Fall 2009, relevant offerings included Affordable Housing Issues (sponsored by the Chair of the Department of City and Regional Planning, Karen Christensen). While these resources tend to be appreciated more by our
ENGAGING THE PROFESSIONAL COMMUNITY OF CALIFORNIA

The metropolitan regions of San Francisco and Los Angeles are a source of enormous architectural talent, and our school is deeply engaged with this community in a variety of ways.

• The Friedman Fellows, supported with endowments, are often leading professionals based in San Francisco or Los Angeles, such as Larry Scarpa of Pugh & Scarpa; Wes Jones; Michael Maltzan; Brett Terpelik of the Renzo Piano Building Workshop; William Fain & Scott Johnson; Mary Griffin, FAIA, of Turnbull, Griffin, Haesloop; and Anne Fougeron. For more on how we work closely with California’s professionals, see Section 3.1.4, Architectural Education And The Profession.

• The Esherick Fellows, supported with endowments, have so far been leading professionals based in major cities within easy reach by air: Frederic Schwartz, Peter Testa, Neil Denari, David Erdman, Tom Wiscombe. For more, see Section 3.1.4, Architectural Education And The Profession.

• Local professionals from HOK, Genlser, ARUP, and McDonough and Partners speak in our Colloquia. For more, see a complete listing in Section 3.1.4, Architectural Education And The Profession.

• Studio and seminar professors invite other department faculty and visitors, especially practicing professionals, and (for major reviews) faculty from other architecture programs around the country to participate in reviews. Final reviews of Master’s thesis projects are multi-day events. Studio reviews are important occasions for disseminating information and for the exchange of ideas among faculty as well as between faculty and students.

• Similarly, the Department’s exhibitions, its public evening lecture series and exhibitions provide exciting forums for interaction, forging connections between the M.Arch and research-based programs and between the M.Arch and other departments’ professional programs. Information on recent evening lectures is included in Section 3.7.2 Visiting Lecturers And Critics; information on exhibitions follows in 3.7.3 Public Exhibitions Since 2003.

CROSS-DISCIPLINARY TEAM TEACHING

In the last external Academic Program Review (1993), and in NAAB reviews, Department faculty and outside commentators alike often note the great potential for cross-disciplinary team-teaching here. The rich and varied expertise found on our faculty offers a strong argument for engaging with each other and our students across conventional disciplinary divisions. Examples include:

• At least two ladder-rank faculty or continuing lecturers from the design faculty conventionally co-teach the two-semester Architecture 200A/B sequence, an intensive studio for first-year students in the three-year M.Arch program. In recent years, one experiment involved bringing architectural historians such as Greig Crysler or Andrew Shanken to the ARCH 200A/B teaching team.

• An NAAB recommendation also initiated greater interest in other co-taught studios, including comprehensive studies. The most elaborate of these studios was the 2007-2008 Nano City studio initiated by Nezar AlSayyad, involving collaboration across the College, involving four faculty from Architecture and two from City Planning. The studio was offered to students in all three departments, at the M.Arch, MCP, MLA and PhD levels. It also brought $300K in funding to the College, some spent on Graduate Student Researchers working during the summer months, and resulted in a major master planning project. For additional information on
1.5.2 CHALLENGES WITHIN THE M.ARCH PROGRAM

Simultaneous with this NAAB review, our Department is undergoing a University Academic Program Review (the visit took place in Fall 2009, and our response is being prepared in Spring 2010). As part of that process, we engaged in a series of conversations about the strengths and challenges of our program, and prepared a detailed Self-Study report. Based on that exercise, as well as the feedback we received from the external reviewers, we have a clear sense of our challenges. The ones that are specifically related to the M.Arch program are summarized here.

CURRICULUM

Historically, the Master of Architecture program has had a large and varied faculty able to offer a range of robust specializations (history, social processes, building science, design process, and a wide variety of design approaches) within the one-, two- and three-year curricular programs. Our diversity is our greatest strength, and also our greatest challenge. Our openness to a broad range of approaches to the discipline is part of the reason we have had such wide-reaching and pervasive impact in the field and why our students are recognized for their leadership at such an early stage of their own careers. Our current challenge is to evaluate these specializations in light of changing faculty and current developments in our field, in some case redefining their scope, in others perhaps finding ways to combine them.

STUDIO SEQUENCE & COMPREHENSIVE STUDIO

One specific challenge is the restructuring of the studio sequence, while maintaining a diversity of offerings at a multiplicity of scales. We are considering various options regarding more structured offerings. The M.Arch Committee has made this a focus of its 2009 – 2010 agenda, and will have a specific proposal in place at the time of the spring NAAB visit.
FACULTY INVOLVEMENT IN THESIS

Participation in thesis committees is unevenly distributed, with some faculty on as many as six or eight committees each Spring and others on none; inclusion on these committees is often not factored into the distribution of faculty teaching responsibilities. (A similar problem is also found in the M.S. / Ph.D. thesis committees.) The combination of thesis commitments and admissions responsibilities tends to take a great deal of faculty time each Spring and was the impetus for Stoner and the 2008-2009 M.Arch committee to consider alternatives.

DESIGN FACULTY

Our department overall has had a significant decline in the number of FTE, and many areas of our curriculum are in need of more faculty. In particular, many design faculty are concerned that our department has an unusually small ratio of design faculty to other faculty, based on comparisons to other schools of architecture. Clearly, in a setting where only a professional degree is offered, the relative proportion of design faculty would be much higher; given the strength of our M.S. and PhD program, we may have a relatively larger number of faculty compared to other schools in specialized areas (such as history/theory), and that affects this ratio. In any case, there is a particular need for more design faculty whose strength is in professional practice and the design and construction of real buildings.

RESOURCES

Reduced general funding has had other numerous and unavoidable effects on our educational community. One area that has been impacted is our digital equipment and related staff support. Budget cuts have forced us to add fees for access to computers and fabrication equipment; students, as a result, are unable to use our facilities to the fullest. Revenue shortfalls have also decreased the number of workshop hours and time available for students to access CNC machines. Our students are deeply concerned about insufficient and/or inadequate printer and computer services, as well as easy access to this equipment.

- We have tried to balance these needs with other support; Lisa Iwamoto deserves the greatest credit in this regard. She dedicated a significant amount of her start-up funds to equipment purchase and later brought in an impressive grant of nearly $100,000 from the National Science Foundation for CAD/CAM equipment in 2003, with additional matching funds of over $26,000 and $6,500 from other sources. Fees collected through 2007 were used for nearly $200,000 in hardware and software purchases in the 2008-2009 academic year. As explained elsewhere, however, the practice of collecting these fees was restructured, and such funds will not be available in the future.
- Ronald Rael employed some of his start-up support to establish a parallel Digital Ceramics Lab, a collaboration with Ceramics Professor Richard Shaw in the Department of Art Practice. Rael and Shaw share the costs of equipment for a digital ceramics research laboratory with two 3D printers, two computers and a 3D digitizer. Students enrolled in the digital ceramics course are given access to the equipment, printing sinuous clay bodies to that are then fired in the ceramics kilns.
1.5.3 THE FUTURE: OPPORTUNITIES, STRATEGIES AND PROPOSED INITIATIVES

The M.Arch committee, which since Fall 2008 has been headed by Chair of Graduate Advisors Jill Stoner, is aggressively addressing many of these issues. Stoner has guided the M.Arch committee in implementing more rigorous oversight of studios in general and the comprehensive studios in particular, in exploring new models for the capstone project, and developing new revenue streams.

CAPSTONE PROJECT

One of our requirements for the M.Arch degree is a final thesis project; we are the only professional school at UC Berkeley to require a thesis at the Master’s level. Each graduate student developing a thesis, whether written or designed, usually takes part in one of three “thesis prep” courses offered in the Fall and then assembles a committee involving two departmental faculty and an outside member in the Spring. This year, we have added a new option, a research studio. Complementary to the thesis option, this research studio will involve more collaborative inquiry around a set of intellectual questions designed by the studio leader, in this case Nicholas de Monchaux. While thesis students produce individual documents, the research studio will culminate in a single collaborative publication synthesizing the research and design components of the year-long course. At the end of this first year, we will evaluate the success and potential continuation of the research studio, which will in turn influence the future of the thesis option.

STUDIO SEQUENCE

Implementation of the comprehensive studio requirement for all M.Arch students, created in response to our most recent NAAB review, is another opportunity for improvements in our curriculum. NAAB requirements for comprehensive design describe this as intended to assure the “ability to produce a comprehensive architectural project based on a building program and site that includes development of programmed spaces demonstrating an understanding of structural and environmental systems, building envelope systems, life-safety provisions, wall sections and building assemblies and the principles of sustainability.” The underlying intent of the studio is to fully integrate programmatic, technical and aesthetic concepts throughout the full range of design activity from schematic proposal to design development to contract document. Although there have been some exciting versions of these studios since our last NAAB visit, many involving practicing faculty brought in with Friedman funds, there are faculty that feel the comprehensive studios offered in very recent semesters challenged us to change. Under our current Chair of Graduate Advisors, Jill Stoner, the M.Arch
committee has taken a close look at the comprehensive studios, proposing the following: 1) creating an oversight committee to review both content and evaluation criteria, 2) examining opportunities for team teaching and other forms of collaboration to bring in more technical expertise, and 3) finding additional resources that could support the studios. Stoner will continue to develop these systems and there will likely be more to report on these developments with the NAAB team in Spring 2010. much has already been initiated. This is further discussed in Section 2.1 Summary Of Responses To Team Findings, as the Comprehensive Design Studio was a source of concern to the NAAB team in 2004. We are refocusing the comprehensive design agenda, especially directed toward the new 2009 Conditions.

POST-BACCALAUREATE PROGRAM
The new summer post-baccalaureate program [IN]architecture will benefit the M.Arch program in at least three ways: 1) increasing financial resources that can be used for graduate student and program support, 2) helping us to advance a national reputation for an excellent post-baccalaureate program leading to graduate study in architecture, and 3) the nurturing of potential ‘star’ applicants that will then join our Master of Architecture Option 3 program. All these efforts serve to support our larger educational mission – while also financially subsidizing programs that are at the risk of being cut during these difficult times.
2. PROGRESS SINCE THE LAST SITE VISIT

2.1 SUMMARY OF RESPONSES TO TEAM FINDINGS .......................................................... 33
2.2 SUMMARY OF RESPONSES TO CHANGES IN NAAB CONDITIONS............................... 49
2. PROGRESS SINCE THE LAST SITE VISIT

2.1 SUMMARY OF RESPONSES TO TEAM FINDINGS

The 2003 Visiting Team found the following conditions unmet:

- 12.14 Accessibility
- 12.19 Life-safety Systems
- 12.21 Building Services Systems
- 12.22 Building Systems Integration
- 12.24 Building Code Compliance
- 12.29 Comprehensive Design

From 30 September to 2 October 2007, a NAAB Focus Evaluation Team visited the Department; it was concerned only with three of the above conditions. For each of these, comments by the 2003 Visiting Team (VTR) and follow-up response of the 2007 Focus Evaluation Team (FET) are given.

2.1.1 RESPONSE TO CONDITIONS UNMET

(12.14) ACCESSIBILITY. Ability to design both site and building to accommodate individuals with varying physical abilities.

VTR: “The visiting team was not able to find consistent evidence to demonstrate each student has the ability or understanding to accommodate individuals with varying physical abilities.”

FET: “The ability to accommodate individuals with varying physical abilities has been demonstrated in Comprehensive Design Studio 201.”

Comprehensive Studios embrace the issue of accessibility as one of a group of professional expectations that must be considered in students’ work. In some cases, the topic has been further highlighted by outside speakers, underscoring its importance to the profession. For example, in Fall 2005, David Maglaty, working with René Davids, brought a number of consultants into the studio setting, including John Christiansen, who spoke on code issues and accessibility. More often, faculty challenge students to take responsibility in this area by specifically asking them to research the topic and relate it to their studio work.
In addition, in Fall 2004, we began offering a separate ARCH 260 (initially numbered 269), Introduction to Construction course for graduate students. While such a course was not called for by the NAAB, it nonetheless serves as one point in the M.Arch students’ education where the accessibility is highlighted. Students look not only at the basic issues of wheelchair accessibility, but also discuss more stringent, locally-enforced concerns regarding provisions for the hearing and sight impaired, and how all disabled communities are considered in life safety terms.

A new seminar being offered by Jill Stoner, ARCH 207, Introduction to Methods and Conventions of Practice, is a 1-credit course for M.Arch students, designed to complement Comprehensive Studio. The seminar offers a review of accessibility and code issues, design phases and contracts, conventions of construction documents, and coordination of architectural and engineering drawings. The course has been offered for the first time in Fall 2009. We will be in a position to discuss its effectiveness with the team during its 2010 visit.

Invited lectures on developments in this area also occur in our colloquia, and include Helsinki University of Technology’s Eric Pollock, Accessibility in the Urban Environment (December 2006); David Rubin, Visioning UC Berkeley’s Southeast Campus (May 2007); Kivanç Ertaş: GIS-Based Stochastic Modeling of Physical Accessibility: A Case Study of Medical Emergency Service Accessibility in Eskisehir, Turkey (September 2009). The topic was also a part of Clare Cooper Marcus’ Healing Gardens and Restorative Landscapes: The Links to Physical Health and Psychological Wholeness (October 2007) and Claudio Vekstein’s Public Demonstration Architecture (pda) in March 2009.

As an initial response, this and subsequent concerns were also addressed in ARCH 120, Introduction to Professional Practice. However, ARCH 120, now ARCH 107, has been increasingly directed toward undergraduates.

Accessibility is a much more integral value locally than it is in many parts of the United States; our faculty were involved in making this true. We take the topic seriously, although would acknowledge that it, like other pragmatic concerns, may not be aggressively highlighted in our most experimental studios.
(12.19) **LIFE-SAFETY SYSTEMS. Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their sub-systems.**

VTR: The previous team was not able to find consistent evidence to demonstrate each student has the understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their subsystems.

FET: “Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their subsystems has been demonstrated in Comprehensive Design Studio 2001 [sic]; as well as in-depth coverage of seismic life-safety issues in Seismic and Construction 263 [sic].”

Comprehensive Studios also embrace the issue of life safety as one of a group of professional expectations that must be considered in students’ work. For the most part, faculty outline basic concepts and challenge students to take responsibility in this area by specifically asking them to research the topic and relate it to their studio work.

ARCH 260, “Introduction to Construction: Graduate Level” also serves as a point in M.Arch students’ education where the topic is highlighted. Students look not only at the basic issues of exiting and egress but also discuss more stringent, locally-enforced concerns regarding provisions for the hearing and sight impaired, and how those unable to use wheelchairs are considered in life safety terms.

(12.21) **BUILDING SERVICE SYSTEMS. Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems.**

VTR: “The visiting team was not able to find evidence that all students are provided an opportunity to obtain an understanding of the principles of vertical transportation, plumbing, communication, security and fire protection systems.”

The “understanding” of these principles begins in our lecture classes, and then the integration of this understanding into design (along with some additional teaching of basic principles) is done in our Comprehensive Studios. An understanding of mechanical building services is addressed in ARCH 140, Energy and Environment. The other building services are taught in ARCH 260, Introduction to Construction: Graduate Level. The integration of these basic principles of building service systems into design is covered in ARCH 201- Comprehensive Design Studio, which addresses issues of vertical transportation, electrical, communication, and plumbing services. The overall intent in the studio is to treat building systems as an important generator of architectural form. To ensure that all students are provided opportunities to understand building service systems, we now monitor their progress in fulfilling all NAAB criteria (see Section 4.1).
(12.22) BUILDING SYSTEMS INTEGRATION. Ability to assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design.

VTR: “While course work was able to demonstrate students’ understanding and ability regarding structural, environmental, and exemplary building envelope systems, the visiting team was not able to find consistent evidence of the students’ ability to integrate building service systems into building design.”

The key point where the integration of buildings systems into architectural design occurs is the Comprehensive Studio, although such integration is also important in the development of final-semester thesis projects.

However, some questions on this point may also relate to professional differences. We teach in a region with an extremely benign climate and some of the lowest variation from normal comfort, hot or cold, found anywhere in the nation. Our building science faculty are strongly committed to non-mechanical solutions to comfort, as evident in the many courses on this topic offered regularly in our department, e.g., ARCH 243, Natural Cooling and Ventilation; ARCH 245, Daylighting, ARCH 140, Energy and Environment, and in special seminars. Speakers in the Fall Architecture Colloquium, offered until Fall 2007, are listed in Section 3.1.4 Architectural Education And The Profession; many of these speakers also advocated addressing comfort via the integration of natural systems. When projects are designed for Bay Area sites, the care students take in addressing comfort through orientation and other non-mechanical environmental systems may not be evident to our visitors to the degree they might with mechanical systems. As such, we believe that criticism on this score is related more to weakness in communicating how students were addressing environmental systems from a perspective at the heart of many colleagues’ work, and not a lack of concern for the issue.

(12.24) BUILDING CODE COMPLIANCE. Understanding of the codes, regulations, and standards applicable to a given site and building design, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, means of egress, fire protection, and structure.

VTR: “The visiting team was not able to find consistent evidence of student understanding of building code compliance.”

As noted above, the “understanding” of code compliance begins in our lecture classes, and then the integration of this understanding into design is done in our Comprehensive Studios (which will be evident in the student work exhibited in the Team Room. The understanding of building codes is conveyed in ARCH
208 (formerly 229), Introduction to Construction Law, in ARCH 260, Introduction to Construction: Graduate Level, in ARCH 140: Energy and Environment, and ARCH 253, Seismic Design and Construction. Building code compliance is also reinforced in many other required and elective courses.

In ARCH 260, Introduction to Construction: Graduate Level, the California Building Codes, based on the IBC and IRC, are extensively discussed. As of 2009, the California Building Code and local zoning codes are available for free on-line increasing students’ access to the codes. In addition to occupancy, construction types, separation, egress, and fire protection, seismic issues and wildfire mitigation in residential communities is also being treated with increasing seriousness in California via zoning and building codes, and this is also addressed in Arch 260, Introduction to Construction: Graduate Level.

In ARCH 208 (formerly 229), Introduction to Construction Law, Sharafian teaches codes through case studies – for example, comparing cases to clarify how the interpretation of two conflicting or ambiguous codes play into the standard of care.

California Title 24 energy codes are taught in ARCH 140, Energy and Environment, as well as in several electives: ARCH 243, Natural Cooling and Ventilation; ARCH 245, Daylighting; and ARCH 249, High Performance Facades.

The most locally significant and scrutinized aspects of building code enforcement in this area are seismic design. Mary Comerio’s ARCH 253, Seismic Design and Construction addressed these issues very specifically in the time period reviewed by the last NAAB team – dedicating several weeks to building code and life-safety systems issues each. We anticipate her offering this course again in the next academic year when she returns from sabbatical.
(12.29) COMPREHENSIVE DESIGN. Ability to produce an architecture project informed by a comprehensive program, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to the program’s design criteria.

VTR: “The nature of the Berkeley architecture program provides faculty and students rich opportunities to investigate and explore rich and individual interests in research, theory and design. Flexibility to pursue individual interests is reinforced by a combination of vertical studios and the opportunity to investigate a theoretical thesis topic. The visiting team was not able to find consistent evidence that all students have the ability to produce a comprehensive architecture design project.”

FET: “Berkeley’s introduction of the Comprehensive Design Studio 201 provides a structure for ensuring that all students have the ability to produce a comprehensive design project. Demonstration of this ability is also reinforced in the student thesis projects which are based on a specific building type in contrast to student thesis projects based on social or theoretical design issues. In addition comprehensive design is elegantly demonstrated in an experimental studio Arch 269X; which provides a collaborative design-build opportunity for construction projects as diverse [as] a heated outdoor theatre for the college courtyard and an emergency shelter prototype for natural disasters.

Comprehensive Design Studio work from 2004-2007 was reviewed positively as part of our Focused Evaluation in 2007. M.Arch students are required to complete at least one Comprehensive Studio prior to graduation; concerns about all students fulfilling this requirement are addressed in the following section. Checklists used to assure that all students take at least one such studio prior to graduation have been effective. In our program, there are two checklists that are used to evaluate student progress (see Section 4.1 Student Progress Evaluation Procedures, for the actual checklists.) The first is the M.Arch Program Requirement Checklist that is the record of required and sub-area courses taken to fulfill our program. The Arch 201 - Comprehensive Studio is included on this checklist. The second is the NAAB Student Performance Criteria Checklist that students self-record courses they take that fulfill their NAAB requirements. Comprehensive Design is also included on this one.

The checklists are reviewed by the Student Affairs Officer at the beginning of the final year of study (checking self-reported information against transcripts) and again before a student can advance to thesis. As a result, students are very aware that they will not be able to take the Spring thesis courses if they have not completed the Comprehensive Studio requirement; this would cause a full year’s delay in graduating and is a strong incentive to assure there are no concerns in this area.

In Fall 2006 and Fall 2007, two Comprehensive Design Studios were taught by Susan Ubbelohde. In these, students developed a preliminary proposal early in the semester; afterwards specific technical issues were
addressed in lectures offered by Ubbelohde and student work was then closely reviewed one-on-one with leading professionals armed with thick markers in working critiques. Topics reflected not only basic concerns such as structural design, but also Ubbelohde’s specialties: envelope design, daylighting, on-site energy generation, and thermal performance.

Other comprehensive studios have included visiting faculty David Maglaty of EHDD and René Davids (Fall 2005), Roddy Creedon (Spring 2007), Mark Anderson (Fall 2008), Peter Testa, of Testa&Weiser (Fall 2008) and Mary Griffin, FAIA and Eric Haesloop, of Turnbull Griffin Haesloop (Fall 2008). Jill Stoner is teaching the Comprehensive Studio in Fall 2009 Maria Paz Gutierrez, will be offering the Comprehensive Studio in the Spring 2010 semester.

Currently, Jill Stoner has brought forward a proposal to offer the 201 Comprehensive studio as a necessary prerequisite to the option studios, which would be renumbered 202. Thus, the “vertical” studio model would be replaced with a more explicit studio sequence.

Studio settings emphasize process; seminars and other settings are more effective at delivering content-rich teaching. NAAB’s efforts to use the Comprehensive Studio requirement to integrate these two ways of learning and encourage quasi-firm-like practices in studio settings is one we believe we have addressed well (though not without extra expense), but we have also explored other means for accomplishing the underlying intentions of the Comprehensive Design requirement. Another approach we used was to incorporate complex design problems into graduate seminars; this has worked well enough that it led to the Focus Evaluation Team’s praise, copied above, for these efforts.

* In Spring 2005 and 2006, Mark Anderson led seminars (ARCH 269X) involving the development of small portable structures: Hot-White Orange in 2005 and LifeBean in 2006. These were extremely well received by the profession and media. LifeBean was given a $2500 prize for best group project in the 2006 competition 2×8:Swell, sponsored by the AIA Los Angeles Chapter, and both structures were selected for exhibition at the Architecture + Design Museum in Los Angeles during the summer of 2006. Hot-White Orange also received a design award from I.D. Magazine in 2006 and was published in the Annual I.D. Design Awards issue of the magazine. A photo of Hot White Orange was additionally published in the Journal of Architectural Education as part of a discussion of the value of designing and building installations in students’ education. Both projects were also exhibited at the University of Texas Dallas Gallery in 2008.

* Although not noted by the Focus Evaluation Team, Anderson’s Spring 2004, ARCH 201 Studio should also be mentioned here. Students worked as a group to design and build four components for the alternative learning programs at the Tinkers’ Workshop, offered to at-risk and disadvantage youth from Oakland and Berkeley. These components were massive rammed earth walls; a rammed earth stage for performances and events; concrete work slabs; and a security fence made of salvaged bicycle parts. Anderson explained in a Spring 2005 article, “All the concrete – several
truckloads worth – much of the tons of earth and steel and many incidental components were donated for the project by local businesses… As materials began to arrive, students directed the concrete trucks into place, and struggled to learn new skills and keep up with the unrelenting construction process, their enthusiasm even drawing normally stand-offish truck drivers to pitch in and show the students how to place concrete properly. …By the end of the project, the students had rapidly experienced every phase of design and building, from site evaluation, programming consulting research and client diplomacy, to financing, scheduling, and project administration; to digging with heavy machinery, building formwork, laying pipe, casting concrete, welding steel and ramming earth.”

More recently, Susan Ubbelohde’s Spring 2009 seminar, ARCH 249, High Performance Facades, also addressed the concerns implicit in this criteria. Working in teams, the class designed a Zero Net Energy façade consistent with the desires of architects and clients in contemporary practice. In an iterative process, the initial designs were developed through evaluation and redesign under four topics: energy use, human comfort, amenities and practice. Collaborating with Steve Selkowitz, Eleanor Lee and other researchers from the Building Technologies Department of Lawrence Berkeley National Labs, Ubbelohde’s course included background lectures, access to current research and introduction to lab facilities used in thermal and lighting performance evaluations.

2.1.2 RESPONSE TO “CAUSES OF CONCERN”

• There is without a doubt a great richness in the opportunities that students have to build their own curriculum based on a wide range of course offerings and research topics offered by the faculty, however the opportunity would benefit from more structure to assure compliance with the NAAB Performance Criteria.

As explained above, checklists used to assure that M.Arch students fulfill NAAB requirements have been effective; these are further discussed in Section 4.1 Student Progress Evaluation Procedures. The checklists are reviewed by the Student Affairs Officer at the beginning of the final year of study (checking self-reported information against transcripts) and again before a student can advance to thesis.

• The College of Environmental Design and the Campus Facilities Department continue to miss the chance to benefit from a closer relationship during a very active campus redevelopment program.

At the beginning of the review period, we reported on two initiatives. The first was the Campus Design Review Committee that provided the opportunity for one M.Arch student to serves as a member of the committee, both to participate in the discourse about projects on campus and to serve as conduit to the College and Department. Second was an increase of specific faculty members to use new campus facilities as laboratories in construction and design build oriented courses, to use the campus retrofit program as a study lab, and to implement sustainable mechanical and lighting practices.
• While students are exposed to the different disciplines within the college through course offerings and research of the faculty, the team did not see evidence that program was taking advantage of a formal relationship between itself and the other two departments of the college.

Since our last visit, two new University initiatives were started that are based in the College of Environmental Design: Metropolitan Studies and New Media. The Center for New Media provides links between architecture and other departments across the University (http://bcnm.berkeley.edu/people/affiliated/). The Center for Metropolitan studies link Architecture, City and Regional Planning and Landscape architecture with faculty throughout the University (http://metrostudies.berkeley.edu/affiliates.html). In addition, the Master of Urban Design program continually brings faculty from all three departments together (http://mud.ced.berkeley.edu/people/faculty).

We continue to have joint studios between the departments. Annual reports have highlighted studios by Harrison Fraker in China and by Nezar Alsayyad and Susan Ubbelohde in India. Dean Wolch has indicated her support in continuing such models and we look forward to new directions with her leadership.

• There does not seem to be in place the necessary Information Technology support in the studio or to support the newly acquired digital equipment for the shop or to support the strategic vision of the program.

In the 2008-2009 academic year, we spent $53,000 on new workstations, printers, plotters and scanners; and $80,000 on new CAD / CAM equipment. In the same year, the Department spent $40,000 for software licenses: AutoCAD is an annual expense of nearly $8,000; other licenses are one-time charges, although require regular up-dating to newer versions of the software. In addition, we spent $83,000 on electrical upgrades and construction for safe and secure accommodation of equipment and $35,000 in 2008-2009 to switch over from a College-based wireless computing network to the University-based system, in part due to increased user demand. Through 2007, we charged user fees for access to specific support, including computing; these fees included surplus funds intended to cover the costs of equipment upgrades and maintenance. However, the University informed us that such fees could no longer include such a surplus after 2007-2008 and required immediate disbursement, the reason for this aggressive purchasing. In response to these changes, the department unsuccessfully submitted an IT funding proposal to the central administration; we are currently addressing these expenses on an ad hoc basis.
A wireless network has been in place throughout the building since 2002, with all studio workstations now having network capacity. CPUs and input/output devices are located on all five studio floors for both graduate and undergraduate students; this reflects a decision in 2005 to move much of the support equipment for studios (plotters, scanners, etc.) out of lab-based settings in the south wing of Wurster Hall and into the studios in the towers over the north wing. The move was made possible by the addition of significant security upgrades in the studios to prevent equipment theft. The result has generally been higher usage of the equipment and greater student satisfaction.

We established a permanent location for a CAD / CAM Lab on in vacated lab areas on the fourth floor of the south wing, with laser cutter and 3d printer. CNC router services are located separately next to the existing wood/metals shop on the second floor. Both these labs are available for all M.Arch students on a limited basis. The decision to organize digital fabrication tools in proximity to the computer-related infrastructure has had its problems, and the College is currently investigating how to bring together digital production equipment with our traditional shop facilities located in the northeast corner of the south wing, on the second floor of Wurster Hall.

Classrooms are better served than they were in 2003; seminar and lecture spaces now have digital projection equipment, with upgrades to three heavily-used College spaces (Room 112, Room 101, and Room 305) and one Departmental seminar space (Room 270) occurring in Fall 2009. A 52" monitor was purchased that is often used in the lobbies and classes.

* Based on the evidence presented in the Team Room there is an inconsistency in meeting the NAAB requirement for the comprehensive design.

In earlier sections of this report, we describe in detail the development of the Comprehensive Design aspect of the studio sequence.
2.1.3 RESPONSE TO CONCERNS REGARDING CONDITIONS

GENERALLY MET

ARCHITECTURAL EDUCATION AND THE STUDENTS

- Considering that few graduate students are members of the American Institute of Architecture Students, there is no apparent organization for these students to develop professional and leadership skills.

We believe that AIAS is an organization that benefits undergraduates with the opportunity to engage with the profession, and to evaluate one’s interest in pursuing an architectural career. However, we feel that for graduate students, other means of engagement in leadership activities are more effective, and more commensurate with the students’ maturity. Graduate students are elected as representatives to the M.Arch committee, and participate in administrative and curriculum decisions. They also serve as liaisons between faculty and students. An informal council of M.Arch students meets monthly with the Chair of Graduate Advisors for an evening session, called “First Tuesday.” At these meetings, various initiatives and decisions are debated and discussed.

Students from all three departments of the college have recently formed a council that meets regularly with the Dean, to discuss issues and policies that affect the college at large.

The multiple opportunities for serving as Graduate Student Instructors and Graduate Student Researchers are also great opportunities to establish both leadership and academic initiative. In general, we feel that our students have extraordinary access to leadership situations, as it evidenced by their subsequent roles in the profession and the academy.

SOCIAL EQUITY

- ...the team was disappointed with the lack of adequate representation of African Americans within the student and faculty populations. The program should consider strengthening its links to the university’s community outreach programs, mentoring programs with its alumni and marketing itself more effectively within the African American communities.

We share the NAAB’s interest in a diverse community. Each year, the Department of Architecture nominates four or five candidates for the University’s Graduate Opportunities Fellowship (GOP) for minority applicants.
At least two of these nominees are usually successful. Once enrolled, minority students may report any problems or special needs to the Graduate Affirmative Action Advisor. There have been no complaints along these lines during the period of review.

To recruit a diverse group of applicants, we use University best practices and host a Diversity Recruiting Day each Fall with the other two departments of the College. We also anticipate that the new post-baccalaureate [IN]Architecture will introduce our program to students of diverse background. In section 3.4 on Social Equity, we describe the particular conditions of admissions in our University system that prohibits us from discriminating against or granting preferential treatment to any individual of group on the basis of race, sex, color, ethnicity, or national origin.

Economic, ethnic, and racial diversity has always been a challenge in architectural education, in part because the profession has not usually been perceived as promising financial success, and in part because the culture of architecture does not itself embrace a diverse constituency, as compared to, for example, medicine or law. Our outreach to underserved communities and low-income communities has been strong, but can still be improved. We need to take initiative in ensuring that underrepresented groups are prepared for competitive application to our program, especially in light of other changes ahead.

HUMAN RESOURCES

• While this condition is met the team expressed concern regarding cutbacks in shop staff and the need for increasing the information technology staff to support increased college demands and equipment purchases.

Information technology investments were extensively outlined earlier in this section and are further elaborated on later in this document. Staffing, however, remains an important concern. With on-going budget cuts, staff in both these areas have been reduced; fees have also been added for students to gain semester-long access. These fees brought in needed revenue, targeted in the same area, but reduced student access.
FINANCIAL RESOURCES

- The team shares the program’s concern regarding the impact of potential cutbacks due to the present California budget crisis. University leadership offered assurance that cutbacks are expected to be limited to minor support services. However, the program is currently in need of additional support in the areas of technical services for shop and computing.

Financial concerns remain and cutbacks have become an annual event. The University leadership that assured the last NAAB team of limited impact is no longer in place; we have a new Dean, and new Chancellor, and a new President. Many of the Regents have changed, under pressure from the Western Association of Schools and Colleges, our regional accreditor. Governor Schwarzenegger, elected only days after our last NAAB visit, has repeatedly cut the State’s support of education at all levels, although spending elsewhere has increased. It will become clear in this document that our economic situation is one of great concern to us. While we have made difficult choices to address the economic strain on our community, we have not resolved these challenges. The specific concerns raised by the team regarding the shop and computing are briefly discussed above, and in more depth elsewhere in this document.

ADMINISTRATIVE STRUCTURE

- The present system of rotating Department Head is perceived by students as a ‘lack of direction and vision’ and by the faculty as not contributing to an individual’s service to the university. The University should address the student and faculty perceptions of Architecture Department Head.

The University has been very supportive on this front, allowing us to pursue the hire of a Chair from outside our Department for the first time in its recent history – in spite of hiring freezes instituted across the UC system. The Interim Dean, Sam Davis, established a Search Committee in 2008-2009; five candidates were indentified out of a pool of 50 applicants from around the world. Three remained interested at the end of Summer 2009, and were brought to the University in Fall 2009: Diane Harris of the University of Illinois at Urbana-Champaign; Michael Bell of Columbia University; and Tom Buresh of The University of Michigan, Ann Arbor. It is possible that we will have completed negotiations and be able to identify the new Chair at the time of the NAAB team visit in 2010; all candidates are aware that we hope to have a new Chair in place in July 2010.
GRAPHIC SKILLS

• …student projects are consistently missing the necessary labeling including scales, north arrows, room labels and project titles needed to properly orient, understand, and evaluate the success of a project.

This is an area that we continue to reiterate with our students. Size, scale, solar orientation are integral parts of design thinking and we require our students to use labels to quickly communicate these essentials to others.

COLLABORATIVE SKILLS

• The visiting team was disappointed to not see more evidence of collaboration within the College of Environmental Design and the university at large.

While many schools of architecture have standing collaborations with other departments and evidences in co-taught courses with other departments, at its inception, the Department chose a model in which many disciplines were brought into the Department. Thus, we have faculty who are building scientists, engineers, sociologists, and historians all within our Department. As a result, there is a degree of cross-disciplinary collaboration that occurs frequently and seamlessly within many courses of our Department, without it always being labeled as such within a course title. We are able to offer an extraordinary depth and breadth of faculty expertise, represented by twenty-nine individuals serving the needs of around a hundred M.Arch students a year.

There are many ways in which our students and faculty collaborate within the College and within the University. From joint appointments to thesis committees, to formal research institutes to governance, the opportunities to both give and benefit from collaboration are enormous. These broader collaborations are described in Section 3.1.1- Architectural Education and the Academic Context.

Where possible, we have established islands of on-going opportunity to collaborate internally in our teaching, both within the College and within the Department, as a response to our disciplinary breadth. Faculty always co-teach undergraduate studios and many lower-level Environmental Design and Visual Studies classes. In Arch 140, an architect (Cris Benton) and mechanical engineer (Gail Brager) regularly co-teach. Gary Black, an engineer responsible for teaching our structures courses, developed a model that offers support directly tied to studio output, another way of establishing overlapping ties. In Spring 2007, Cris Benton and in Fall 2009, Brendon Levitt, a graduate of our program with significant expertise in energy
consulting now teaching as a lecturer, have offered courses based on Black’s model, also connecting with a broad cross-section of work in the studios. Jill Stoner’s regularly offered class “The Literature of Space”, is open to both graduate students and upper-division undergraduates, and is cross-listed with the departments of Comparative Literature and Geography. Additional examples of collaboration include:

- Ronald Rael and Ceramics Professor Richard Shaw in the Department of Art Practice share a digital ceramics research laboratory equipped with two 3D printers, two computers and a 3D digitizer. Students enrolled in Rael’s Spring 2009 ARCH 229, Special Topics in Digital Design Theories and Methods: Craft and Materials Manipulation, used this equipment as part of their studies.

- Mary Comerio is a Faculty Associate at the Center for Real Estate and Urban Economics, Haas School of Business and of the Pacific Earthquake Engineering Center, where she participates in collaborative research projects with engineers.

- Andy Shanken, an architectural historian, and Raveevarn Choksombatchai, an innovative designer, collaborated on two award-winning design competitions, in 2004-2005 and 2005-2006. Choksombatchai also collaborated with Shannon Jackson of the Departments of Rhetoric and of Theater, Dance and Performance Studies to organize a strategic work group on art as research in Spring 2006.

- In Fall 2004 and Spring 2007, Harrison Fraker arranged for studios involving both undergraduate and graduate students from the departments of Landscape Architecture, Architecture, Urban Design, and Transportation Design at UC Berkeley and Shanghai’s Tongji University, supported by the Gordon and Betty Moore Foundation. Faculty in 2007 included Harrison Fraker, Judith Stilgenbauer from Landscape Architecture, and two alumni from the Departments of Architecture and Landscape Architecture, David Baker, and Clark Wilson.

- In Fall 2004, Harrison Fraker taught a similar course in China with David Dowall from the Department of City and Regional Planning and Tom Lollini, Vice Chancellor, Physical and Environmental Planning.

- In Spring 2008, Professors Nezar AlSayyad and Susan Ubbelohde taught a studio on the design of a new “Nano-City” in India, also with generous financial support from outside the University. All of these studios included input from faculty in a number of departments, and involved students from all three departments in the College.

- Architecture students can also take studios offered through the Master of Urban Design (MUD) program, which is inherently interdisciplinary, simultaneously addressing issues architecture, landscape architecture and city planning.

These courses were highly successful and provide a model to be continued in future academic years, given appropriate access to funding; the new Dean, Jennifer Wolch, has made it clear she would like to find ways to continue this practice.
STRUCTURAL SYSTEMS

• …many of the projects displayed had implausible structural conditions which would have benefitted from earlier faculty intervention.

Gary Black, the faculty member who teaches building structure, is regularly invited to offer advice on studio projects. He is involved in the Comprehensive Studios and as a committee member on thesis projects. He also teaches a ARCH 256, Structures in the Design Studio, which offers on-going and integrated support for their studio projects. In addition, Black hires five Graduate Student Instructors each Fall to assist in teaching ARCH 150, Introduction to Structures; rather than relying on students from engineering, Black makes every effort to hire these students from within the M.Arch program as another way of assuring a broad and diffuse intellectual community is prepared to discuss structural solutions to studio work. These students, in turn, act as unofficial consultants to their peers in design studios. Buntrock also covers basic structural concepts in ARCH 260, Introduction to Construction, which is recommended to the M.Arch Option 3 students as a good pairing with their first studio, ARCH 200A.

We have made progress in the integration of structures into design studios, but there is still much room for improvement. In fall 2009, Stoner devoted two weeks to the development of a structural concept, with three visits by consulting engineers from Skidmore Owings and Merrill and Arup Associates. The plan for the future comprehensive studio is to integrate a five-week consulting module into the studio schedule, and to require a structural plan as part of the final drawing set.

THE LEGAL CONTEXT OF ARCHITECTURAL PRACTICE

• …the team feels it important to stress that the program needs to make students fully aware of the unique registration practices of California and the ability to reciprocate with the states.

This information is covered in both ARCH 260, Introduction to Construction: Graduate Level, and in ARCH 208, Introduction to Construction Law. The NAAB 2009 Criteria will further stress these issues with incorporation of an IDP position, and we will naturally begin planning for such a role on the faculty, which will further address this concern. However, it is fair to say that for both our faculty and our students, eventual decisions about where to be registered may reflect the regional and national diversity of our origins.
2.2 SUMMARY OF RESPONSES TO CHANGES IN NAAB CONDITIONS

The new NAAB criteria, which compose the necessary and required topics into three major sections, are compatible with our ongoing refinement of the studio sequence and its relationship to other courses. The definition of the three realms will facilitate the overall review of our curriculum structure, and has already provoked new courses and new synergies among existing courses.

Realm A: Critical Thinking and Representation
This realm is addressed in the core studios, in the history and theory courses, and in a set of seminars that explore emerging modes of representation. In the final thesis project, the subjects of critical thinking (verbal expression) and representation (graphic expression) are brought together. The thesis is a document that privileges neither drawing nor writing, but emphasizes their interdependence. The formulation of this section of the criteria is useful in the refinement of the thesis description, and in its evaluation.

Realm B: Integrated Building Practices, Technical Skills and Knowledge
This realm is addressed in the comprehensive studio and in the required lecture courses in building construction, building structures, and building systems. Beginning in 2010 – 2011, these subjects will be further pursued as modules embedded into the comprehensive studio, thus emphasizing the ‘integrated’ aspect of this set of criteria.

Realm C: Leadership and Practice
This realm is addressed specifically in the newly instituted seminar that accompanies the comprehensive studio, Arch 207: Introduction to Methods and Conventions of Practice. The seminar takes on the issues of practice that are not directly related to the design process, including:

- Legal Responsibilities
- Building Code Compliance
- Project Management: Practice
- Project Management: Administration
- Financial Considerations
- The Role of the Client

Several of these issues are also covered in the course on legal aspects of architectural practice. In the Fall of 2010, Professor Mary Comerio will establish our Intern Development Program (IDP) instruction in her role as IDP Coordinator, with will further the emphasis on these professional practice topics.
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3. THE THIRTEEN CONDITIONS OF ACCREDITATION

3.1 PROGRAM RESPONSE TO NAAB PERSPECTIVES .............................................................. 53
3.2 PROGRAM SELF-ASSESSMENT PROCEDURES .............................................................. 78
3.3 PUBLIC INFORMATION ................................................................................................ 82
3.4 SOCIAL EQUITY .......................................................................................................... 86
3.5 STUDIO CULTURE ...................................................................................................... 94
3.6 HUMAN RESOURCES ............................................................................................... 97
3.7 HUMAN RESOURCE DEVELOPMENT .................................................................. 115
3.8 PHYSICAL RESOURCES .......................................................................................... 146
3.9 INFORMATION RESOURCES ................................................................................. 169
3.10 FINANCIAL RESOURCES ....................................................................................... 179
3.11 ADMINISTRATIVE STRUCTURE ............................................................................. 185
3.12 PROFESSIONAL DEGREES AND CURRICULUM .................................................. 188
3.13 STUDENT PERFORMANCE CRITERIA .................................................................... 199
3. THE THIRTEEN CONDITIONS OF ACCREDITATION

3.1 PROGRAM RESPONSE TO NAAB PERSPECTIVES

3.1.1 ARCHITECTURAL EDUCATION AND THE ACADEMIC CONTEXT

The University of California, Berkeley provides an ideal setting for comprehensive professional education. The Department of Architecture has full standing within the University. The Department has the resources of the University to draw on and contribute to and operates within the rules and procedures that have been established by the intuition to ensure continued academic excellence and fairness in the treatment of students, faculty and staff.

Within our college, the Department of Architecture is one of three, along with the Department of Landscape Architecture and Environmental Planning, and the Department of City and Regional Planning, all enjoying national reputations for rigorous research, challengingly creative output, and a commitment to the highest standards of our professions.

The work of our faculty and students is interwoven with work throughout the College and the larger campus community. As explained in the introduction, the University of California, Berkeley is widely considered one of the best public universities with a strong commitment to education and to innovative research. There are more than 130 academic departments on campus; many are ranked as leaders in their fields. Faculty from across the University also educate our students; they work with us as colleagues.

STANDARDS FOR STUDENTS

The University of California Berkeley has established minimum standards for incoming M.Arch students: (1) a bachelor’s degree or recognized equivalent from an accredited institution; (2) a satisfactory scholastic average, usually a minimum grade-point average (GPA) of 3.0; and (3) enough undergraduate training to do graduate work in architecture (in our program this applies to Option 2). All applicants from countries in
which the official language is not English are required to submit official evidence of English language proficiency. Minimum standards in the Test of English as a Foreign Language (TOEFL) are 570 for the paper-and-pencil test and 230 for the computer-based test, and 68 for the internet based test. In the International English Language Testing System (IELTS) the overall Band score must be at least 7 on a 9-point scale.

Continuing M.Arch students are required to take a minimum load of 12 units per semester. In order for students to be in good standing, they must maintain an overall grade-point average of at least 3.0 on the basis of all upper division and graduate courses (100- and 200-level) taken in graduate standing. Grade-points earned in Berkeley courses numbered below 100 or above 300 are not included in determining a student’s grade-point average for remaining in good standing or earning a degree.

STANDARDS FOR FACULTY

The University of California Berkeley has established standards for faculty in four areas: teaching, research and creative work, professional competence and activity, and University and public service. Candidates being recruited are evaluated by these criteria as are the entire faculty with biannual reviews. (Academic Personnel Manual – 220). In addition, the College has more detailed standards (CED Guidelines of Appointment and Advancement- revised April 2006) that establish standards for faculty in both areas of research and design. Our faculty is tenured only if they have achieved national recognition for research or other creative work; international recognition is expected for those advancing to Full Professor. Biannual merit reviews underscore expectations of a continued and energetic commitment to such work. (This area is further discussed in 3.7.7 Policies, Procedure and Criteria for Faculty Appointment, Promotion, Tenure and Access to Development Opportunities.)

Promotions are reviewed at two levels, one at the department and the other at the University level. At the University level, faculty members from other programs serve on ad hoc committees to review cases, ensuring system-wide standards for the institution. Our faculty reviews other departments’ faculty appointments, as other programs review ours as part of the University model of shared governance.
INTERACTION WITH OTHER PROGRAMS AT UC BERKELEY

Academically, M.Arch students can and are welcomed to cross-register to take advantage of courses in all other departments. In addition to the resources of the College, it is common for students to take courses in civil engineering, business and real estate, geography, American studies and law, to name a few.

In the review period, all M.Arch students have been required to complete a Master’s thesis that requires three members on their committees. Two members must be from the Department of Architecture; the third is required to be outside our program and outside the Department. Through this mechanism, students engage with faculty outside Architecture, enriching the nature of the student thesis work. Outside M.Arch committee members in Spring 2009, for example, included faculty from Anthropology, Art History, the Center for New Music, City and Regional Planning, Civil Engineering, Computational Science, Earth and Planetary Sciences, Education, the Energy and Resources Group and the Ecosystem Sciences Division of the College of Natural Resources, History, Information Sciences, Integrative Biology, Landscape Architecture, Mechanical Engineering, Near Eastern Studies, Optometry, Physics, Psychology, Spanish and Portuguese, and Women’s Studies. The thesis requirement is currently being re-evaluated for other reasons. If revised, our students will still have many opportunities to interact with other programs in the University.

Some faculty teach courses in other departments such as Landscape Architecture and Environmental Planning, City and Regional Planning, Geography, and American Studies. Several of our faculty hold joint appointments with other departments. Through the Program in the Design of Urban Places, many of the Architecture faculty regularly interact with faculty in the College.

Research at Berkeley is undertaken within several types of organizations—academic departments, institutes and centers, museums, and field stations. Academic departments offer courses and grant degrees, as well as sometimes housing laboratories and other research infrastructure. They are organized according to academic disciplines (e.g. sociology, economics, physics). Research Centers and Institutes, also referred to as Organized Research Units (ORUs), are dedicated solely to the research enterprise. They are organized around broad substantive research topics (e.g. international affairs, information technology, the environment). As such, they draw into their research programs faculty and students from multiple departments and disciplines. Berkeley has more than 80 such research units. Berkeley’s 8 museums are also research sites, whose common characteristic is their collections of physical objects. In addition, Berkeley manages a number of biological “field stations.” Most are in remote locations within California ideal for the study of ecosystems, botany, zoology, and forestry.
M.Arch students and faculty interact with faculty and students in other programs through research organizations such as the Center for Environmental Design Research (CEDR) and Institute of Urban and Regional Development (IURD), both located in Wurster Hall. Within CEDR there are many cross-disciplinary activities including Building Science, Environmental Planning and Information Systems, Traditional Housing and Settlements, Center for New Media and Computerized Design Visualization to name just a few. Within IURD, research is rooted in the social sciences, in such research questions as predicting the consequences of statewide housing policy or analyzing neighborhood social indicators.

Other ORUs in which M.Arch students and faculty are involved include the Doreen B. Townsend Center for the Humanities, the Center for Middle Eastern Studies (Nezar Alsayyad is the Director); and the Institute for East Asian Studies.

Additional information on CED Organized Research Units, and selected Research Centers that operate under them:

- The Center for Environmental Design Research is broadly concerned with questions of how to provide comfortable, healthy and productive conditions in economical and energy-efficient built environments. Its mission is to foster research in environmental planning and design. Such research is aimed at increasing the factual content of planning and design decisions and at promoting systematic approaches to design decision making. Current architecture faculty members associated with CEDR include Nezar AlSayyad, Charles C. “Cris” Benton, Gail Brager, Yehuda Kalay, and Susan Ulbelohde, and emeritus professors Edward Arens, Richard Bender, and Mike W. Martin.

- The Institute of Urban and Regional Development conducts collaborative interdisciplinary research that reveals the dynamics of communities, cities and regions, and informs public policy. It welcomes visiting scholars from around the world; the many lectures and symposia it brings to Wurster Hall have a broad impact as well. Architecture faculty members associated with the IURD include Nezar AlSayyad, Peter Bosselmann, Mary Comerio, Galen Cranz, Harrison Fraker, and emeritus professor Edward Arens.

- The Center for the Built Environment (CBE) is the largest research program under CEDR, and is operated by faculty and research specialists who are part of the Dept of Architecture’s Building Science Group. It is an industry/university collaborative supported by industry partners from diverse sectors of the building industry, including architects, engineers, contractors, manufacturers, building owners, facility managers, government agencies and professional associations. Research focuses on energy use (physical monitoring, simulation), indoor environmental quality (web-based surveys, advanced thermal comfort models), building envelope systems (dynamic facades, natural ventilation, mixed-mode), innovative HVAC systems (underfloor air distribution, radiant cooling, integrated systems), and controls and information technology (wireless lighting controls, dashboard visualization systems, demand response). www.cbe.berkeley.edu

- The many research centers on campus involving energy efficiency, sustainability, green design, and green planning were brought together in 2004 under the campus-wide Green Building Research Center (also under CEDR), which works to assess sustainability measures across the university and promote additional procedures that protect our environmental health. The Green Building Research Center promotes sustainable building design and operation on the UC Berkeley campus by providing consulting services to the campus’s Capital Projects and Physical Plant departments, creating documentation of green building and energy-efficiency projects across the state, and developing...
opportunities to get involved through funded research and internships with Capital Projects and Physical Plant.

• The Disaster Resistant Universities Initiative, funded by the Federal Emergency Management Agency, was managed with the assistance of IURD, with the Berkeley campus as a pilot site for the development of a national program. Mary Comerio was the principal investigator; her research on the economic impacts of disaster losses to a campus (using ours as a model) was published in 2000, establishing a strategic plan for risk management, and in 2006, the Applied Technology Council and Engineering News-Record selected Comerio’s work as one of the top U.S. seismic projects in the twentieth century. Influenced by this initial investigation, since 1997, UC Berkeley has completed or initiated roughly $1-billion worth of seismic and related improvements in buildings across campus – in the process, reducing by half the life safety risks to our students, faculty and staff and cutting the risks of potential earthquake-caused economic losses by 25 percent. Comerio received about $2-million in funding over four years for her Disaster Resistant University work, and also directed a major effort by PEER (the Pacific Earthquake Engineering Research Center) worth about $2-million in funded research over two to three years. Students have been able to learn from this work both as researchers and in a series of Arch 253, Seismic Design and Construction, seminars Comerio offered.

• A state-of-the-art computer facility provides an opportunity for advanced courses in computer-aided design and Geographic Information Systems (GIS). With the advent of wide-spread use of geospatial data, architects and architecture students are increasingly performing traditional activities related to site and urban analysis through digital means. The GIS Center, in collaboration with the Geographic Innovation Facility (in the College of Natural Resources), provides a variety of benefits to M.Arch students. These include access to online training and student licensed ESRI GIS Software, as well as associated installation support. Nicholas de Monchaux, working with M.Arch students, used these computer tools to determine how to place parks across 1600 microsites in the city of San Francisco, many identified by the city’s Department of Public Works as “unaccepted streets,” no longer maintained by the city and not useable as streets. GIS data allowed these sites to be quickly analyzed in terms of hydrology, slope, soil type, community economics, crime statistics, and potential for integration into the existing network of bike ways. Entitled “Local Code,” the proposal is a finalist in the WPA 2.0 competition sponsored by cityLAB, a UCLA urban think tank, and presented in a November symposium at the National Building Museum.

• The U.S. Department of Energy’s Lawrence Berkeley National Laboratories are directly adjacent to our campus and managed by the university. Students and faculty work with scientists in the labs, conducting research on thermal comfort, improvements in lighting and ventilation, and new or improved renewable energy resources. Anna Konotchick (M.Arch + MCP ’11 / Opt. 2) writes of her work at LBNL, “I will be working on a few new projects which partner with the local municipal government, the US Department of Energy, the California Energy Council, and local environmental advocacy groups to promote “green” or sustainable retrofitting. Despite the much higher incidence of greenhouse gas emissions from the existing built environment rather than new construction, very little scientific research or policy efforts have been made to tackle this problem. California’s ambitious AB 32 requirements will require deep energy savings in the existing built condition…. from designing diagnostics for monitoring and evaluating households, to developing retrofitting techniques, to writing policy recommendations to be enacted in the Bay Area and California.” Konotchick received the Sandy Hirshen Prize, for an architecture student whose direction is linked to a socially responsible architecture, in 2009.
STUDENT AND FACULTY CONTRIBUTIONS TO THE GOVERNANCE OF UC BERKELEY

The tradition of shared governance has endured at the University of California not because it has ensured consensus, but because it has proved fundamental to the full discussion of the university’s role in society and in the management of its important affairs. The faculty is at the heart of the academic enterprise of teaching, research and public service. They are critical not only in maintaining the quality of the university’s academic programs, but also in advising the president and the chancellors.\textsuperscript{21}

Shared governance with the Academic Senate is one of the distinctive features of the University of California. The system of shared governance gives University faculty, operating through the Academic Senate, a voice in the operation of the University. In addition, it imposes on faculty a measure of responsibility for the manner in which the University operates. Faculty participation in governance of the University through the agency of the Academic Senate is a guiding force that unifies the nine campuses of the University into a single system under a uniform standard of excellence.\textsuperscript{22}

The Academic Senate has numerous committees on which our faculty regularly serve such as Academic Planning and Resources Allocation, University Library, Courses of Instruction, Student Conduct, Research, and Teaching, to name just a few. These committees all have graduate student representatives from the Graduate Assembly. The Graduate Assembly is the Graduate Student government whose mission is “to engage and empower graduate students to work together for academic, political, and social change-both inside and outside the UC Berkeley community. As a graduate student government, we are actively engaged in pinpointing graduate student needs, providing resources, and advocating for graduate students through campus and community activism.”\textsuperscript{23}

As a snapshot of a typical year, here are the 2009-2010 contributions of our faculty to the governance of the University:

\begin{itemize}
  \item \textbf{Academic Senate}
  \item Committee on Courses of Instruction ............................................................. René Davids (S10)
  \item Committee on International Education ........................................................... Jean Paul Bourdier
  \item Committee on Research .............................................................................. Mark Anderson, Susan Ubbelohde
  \item Committee on Student Conduct ................................................................. Jean Paul Bourdier
  \item Committee on Teaching ............................................................................. Jill Stoner
  \item Council of Undergraduate Deans ............................................................... C. Greig Crysler
  \item University Library Committee ................................................................. Yehuda Kalay
\end{itemize}
Other
American Studies Executive Board..........................................................Paul Groth
Art Research Center.................................................................Raveevam Choksombatchai
Berkeley Art Museum & PFA Advisory Committee............................Nicholas de Monchaux
Berkeley Center for New Media Exec Committee..............................Nicholas de Monchaux, Yehuda Kalay
Business Resumption Coordinating Group........................................Mark Anderson
Center for Middle Eastern Studies, Chair.........................................Nezar AlSayyad
The Green Initiative Fund .................................................................Cris Benton

STUDENT AND FACULTY CONTRIBUTIONS TO GOVERNANCE OF THE COLLEGE AND THE DEPARTMENT

At the College level, students contribute to governance through “Town Meetings.” The new Dean, Jennifer Wolch, held two such meetings in Fall 2009, one for Undergraduates and one for Graduate students (cutting across disciplinary lines). The Interim Dean, Sam Davis, also held Town Meetings for students during the search for our new Dean. These have been another very effective feedback mechanism between students and the College. To facilitate more on-going discussion, the Dean has initiated the CED Graduate Student Council this Fall.

The faculty has four standing committees through which to contribute to governance at the College: Executive, Library, Undergraduate Affairs, and the Arcus Fellows.

As a snap shot of a typical year, here are the 2009-2010 contributions of our faculty to the governance of the College:

College of Environmental Design Committees
CED Executive Committee..............................................................Nicholas de Monchaux
CED Library Committee...............................................................Ray Lifchez
CED Undergraduate Affairs Committee.........................................Susan Ubbelohde
CED Arcus Fellow Committee Chair.............................................C. Greig Crysler (F09), Greg Castillo (S10)

Department governance is organized in much the same manner as the University. As such, we have numerous committees organized both by program and by task that advise the Department Chair. Most program committees have one or two student representatives. In particular, the standing M.Arch committee that is chaired by the Chair of Graduate Advisors of the M.Arch Program and has two Student Representatives that are nominated and selected by their peers as well as five to six faculty members.
The Student Representatives serve on the M.Arch committee for the spring and following fall semester. These students provide input on issues such as studio sequencing, thesis, studio selection, option programs and the admissions process. Student representatives bring the graduate student perspective on important issues and help improve the student experience for all architecture grad students. Their responsibilities include: (1) meetings with the M.Arch committee. Time commitment - 1.5-2 hours per month; (2) meetings on first Tuesdays with the graduate advisor: time - 1 hour per month; (3) orientation: some prep time and a few hours on the first day of orientation organizing student volunteers to have lunch with new students; (4) prospective student inquiries: emails, phone conversations and occasional face-to-face meetings with prospective students. Time commitment: 1-5 requests each semester; (5) application reviews: organize student volunteers to review applications.

As a snapshot of a typical year, here are the 2009-2010 contributions of our faculty to the governance of the Department:

**Ph.D. COMMITTEE**
Nezar AlSayyad (Chair), Galen Cranz, Margaret Crawford, C. Greig Crysler, Paul Groth, Yehuda Kalay, Andrew Shanken
(Staff: Lois Koch, ex officio; Sharone Tomer, Student)

**M.Arch COMMITTEE**
Jill Stoner (Chair), Cris Benton; Raveevarn Choksombatchai, Affirmative Action Representative; Roddy Creedon; Maria Paz Gutierrez; Susan Ubbelohde; Nezar AlSayyad, contact on M.Arch./MCP program (Staff: Sara McCarthy, ex officio; Students: Sarah Smith and Adrienne Navarro-Sertich.)

**LECTURE SERIES AND EXHIBITS**
Keith Plymale, Coordinator; Harrison Fraker, Ronald Rael with 5 student assistants, each at 0.25 FTE

**PRIZES AND AWARDS COMMITTEE**
Jean Paul Bourdier (Chair), Raymond Lifchez, co-chair for events; Gary Black; Peter Bosselmann; Raveevarn Choksombatchai; Anthony Dubovsky (S10); Richard Fernau (Staff: Donna Ko, ex officio)

**CURRICULUM COMMITTEE**
Renee Chow (Chair), Gary Black; Greg Castillo (F09) / Maria Paz Gutierrez (S10); Raymond Lifchez (Staff: Michael de Leon, ex officio)

**WEBSITE COMMITTEE**
René Davids (Chair), Mark Anderson

**TECHNOLOGY ADVISORY COMMITTEE**
Lisa Iwamoto (Chair), Nicholas de Monchaux, Ronald Rael

**GRIEVANCE COMMITTEE**
Anthony Dubovsky (Chair), Richard Fernau

**LECTURER APPLICATION REVIEW COMMITTEE**
Jean Paul Bourdier, Lisa Iwamoto

**ESHERICK CHAIR NOMINATION COORDINATOR (For F10)**
Susan Ubbelohde

**FRIEDMAN NOMINATION COORDINATOR (For 2010-11)**
Raveevarn Choksombatchai, René Davids

**ACSA ADVISOR / CONTACT**
Dana Buntrock

**2009-2010 AD HOC COMMITTEES:**
Chair Search (appointed by Dean)
Linda Jewell (Chair), Margaret Crawford, Lisa Iwamoto, Andy Shanken, Susan Ubbelohde, Henry Siegel (alumni)

Department Review - Report (Fall 2009):
Galen Cranz (Chair), Mark Anderson, Gary Black, Anthony Dubovsky
The spirit of shared responsibility and governance that has been central to our university and our college fully informs the relationship between our students and our institution; our students actively participate in many of the important activities of the Department. As with the faculty, they contribute not only to important research, but also, to a far greater degree than at most peer institutions, in our teaching and in service.

3.1.2 ARCHITECTURAL EDUCATION AND THE STUDENTS

Our program is designed to introduce students to architecture in a way that is comprehensive, engaging and critically grounded. The array of courses that we offer spans the spectrum of knowledge and experience necessary to a deep understanding of the field and its potential. These are augmented by related coursework and programs sponsored by related disciplines in the College and in the University. Students are expected at all times to be able to think on their own, to develop the ability to questions and seek further information and to recognize an obligation to seek the best within their abilities. Faculty work closely with students, often in small classes and as individual advisors so that our students come into close contact with faculty members.

SETTING A LEARNING AGENDA

Each graduate student is matched with a faculty advisor (Graduate Advisor) upon arrival at Berkeley. The advisor provides guidance for entering and continuing students concerning the various steps necessary to complete in order to earn their M.Arch. Graduate Advisers may sign petitions to add or drop courses. Continuing students can request another faculty member to be their advisor as best suits their needs. The Chair of Graduate Advisors also provides guidance to all M.Arch Students. Through mentoring and advising, complemented by checklists that underscore the students’ own responsibilities, we allow each student to design a distinct educational pathway appropriate to their own interests, without sacrificing rigorous exposure to all areas of the curriculum. The varied paths students plot through our program also results in our graduates collectively sharing an exceptionally broad and catholic understanding of the field. In this way, students are agents in their own education and develop a deep sense of ownership in their academic and professional growth.
COLLABORATION WITH RESPECT

In our program, we encourage open discussions – in studios, in classes, informally – as a sharing of ideas and a willingness to critique as a way to better understand. As a result, our program does not create a culture that pits students against each other – if one questions or succeeds, all share in the learning. Many courses and studios have components that require group participation in which students learn through informal clusterings within a single class, through formal learning groups for short term projects, usually just a portion of the semester and through full-semester teams. In these modes, students learn to listen to each other, to respect all opinions, and to practice leadership that engages, not dismisses.

EXPOSURE TO NATIONAL AND INTERNATIONAL PRACTICE AND THE WORK OF ALLIED DESIGN DISCIPLINES

See Section 3.1.4 Architectural Education and the Profession

LEADERSHIP

In addition to collaborative projects, students learn about leadership in numerous ways: mentoring, case studies, and skills-building. Our goal is to have students recognize that leadership is a process with knowledge of when to listen, when to follow, when to intervene, and when to direct. As can be seen in our course matrix, nearly all courses work to develop oral and written communication skills with critical thinking, fundamental to leadership. As a result, our graduates are confronting the challenges of our built and natural environment, knowing they can make a difference.

A few examples of how our graduates have moved into leadership roles, many who graduated around the time of or since the last NAAB review are on the faculty at universities throughout the country:

* Ryan Smith (M.Arch ’03 / Opt. 1) is now an Assistant Professor at the University of Utah, where he is also Director of the Center for Integrated Design and Construction. Smith was instrumental in founding the Building Technology Educators’ Society. Since graduating, Smith has received the ACSA Collaborative Practice Award in 2007 and the ACSA Creative Achievement Award in 2009. Smith’s book, Prefab Architecture: A Guide for Architects and Construction Professionals, will be published John Wiley and Sons in 2010; it began with work in Dana Buntrock’s seminar, Arch 264, Off-site Fabrication. While at Berkeley, Smith received the Chester Miller (’03) and Malcolm Reynolds (’03) Prizes. As this report was being written, Smith and a colleague received an AIA 2009 Upjohn Research Initiative grant, for research on Energy Efficiency Benchmarks for Housing.

* Erin Moore (M. Arch ’03 / Opt. 3) is an Assistant Professor at the University of Oregon; she researches the ecology of building construction in terms of the lifecycle environmental impact of building materials and the end of the life of buildings (demolition, deconstruction, and design for disassembly). Her work has recently been published in Dwell, Architectural Record, and Fine
Homebuilding, and in Tiny Houses (Rizzoli, 2009), New Prefab (Loft, 2009), and Houses Now 2 (Taschen, 2009). Moore’s current work began with a 2003 Chester Miller Award and continued in her design thesis called “Building and Ground.”

• Simi Hoque (M.Arch ’03 / Opt. 3, Ph.D. ’06) is assistant professor at the University of Massachusetts, Amherst where she teaches courses on sustainable design to architecture and engineering students. Before joining the UMass faculty, Hoque was an adjunct lecturer at the Massachusetts Institute of Technology. Her articles and papers have been published in a variety of scholarly journals and trade magazines. Hoque is an Associate Editor for the Journal of Climate Change Impacts and Responses and on the Executive Board of the Northeast Sustainable Energy Association. Her 2005 dissertation research received the Carter Manny Special Merit Award from the Graham Foundation.

• Corey Griffin (M.Arch / Opt. 3 + M.S. ’05) is now an Assistant Professor in the Department of Architecture at Portland State University where he teaches design studio and courses in building technology. His research focuses on the intersections of architecture, structural engineering and sustainability. With colleagues at the University of Oregon and Oregon State University, he recently finished a research project funded by Oregon BEST studying the barriers to using more sustainable alternatives to standard structural building materials and systems. Griffin’s research on the relationship between permanence, structure, and sustainability began during his time at UC Berkeley when he was awarded the Branner Traveling Fellowship (’04).

• Jesse Vogler (M.Arch ’05 / Opt. 3) is an Adjunct Assistant Professor at the Illinois Institute of Technology; he also leads a research and design group at Archeworks, investigating social infrastructures and new models of collaborative practice through project-based initiatives with community and non-profit groups throughout the city. Earlier, Jesse taught at Texas Tech University, where he co-led the Montreal Summer Study Program and served as a principal investigator on a large-scale urban research project in Guanajuato, Mexico. Vogler’s M.Arch thesis, on the architecture and geography of the U.S. Postal System, received the Rita Lloyd Moroney Award for Postal Scholarship, a national award sponsored by the U.S. Postal System. While at Berkeley, Jesse also received the Malcolm Reynolds Prize for Design Excellence.

A PLETHORA OF STUDENT PRIZES AND AWARDS

Lastly, we acknowledge the exceptional efforts of many students. We offer numerous awards that nurture students’ distinctiveness, self-worth and dignity.

John K. Branner Traveling Fellowship:

An award of $25-35,000 currently awarded to three students. The Branner Fellowship allows selected individuals to travel the world for a period from nine months to a year, in further preparation for their Master thesis. Branner Fellows are evaluated on the basis of past academic performance and a research proposal regarding their time and travel during the Fellowship; the available support and number of fellowships varies, based on market performance. The three awards in 2008-2009 were:

• Nicolette Mastrangelo’s (M.Arch /Opt. 2 + M.C.P. ’10) The Untested City: unprecedented urbanism and the performance of new public space. The investigation looked at both technological and cultural functions of public space. In addition to the Branner, Mastrangelo received the Paul Braun (’09), CHF Watson (’08), and Zak Assefa (’07) awards.

• Taylor Medlin’s (M.Arch ’10 / Opt. 2) RE: mote … controlled building in areas of isolation. An investigation of construction techniques used in sites of a remote location.

• Nicolas Sowers’ (M.Arch ’10 / Opt. 2) Military Atmospheres: spaces of occupation, resistance, negotiation, and reclamation. A study concerned with the interface between military and civilian spaces. In addition to the Branner, Sowers received the Malcolm Reynolds Prize (’08).
The three awards for 2009-2010 are:

- Adriana Navarro-Sertich (M.Arch / Opt. 2 + MCP ’11) “Favela Chic: The Formal Informal seeks to understand the manner in which architects are currently addressing the favela. The proposal looks at specific design interventions seeking to reintegrate the favela with the city, to foment social inclusion, and to boost economic development and also, as the title Favela Chic suggests, the proposal identifies and questions current design fascination with the informal.”

- Eleanor Pries (M.Arch ’11 / Opt. 3) Drip|Dry: Systems that Seep. For each water system proposed for study, Pries will investigate: hydrologic technology, urban morphology, social spheres and the building-system intersection. In addition to the Branner, Pries Received the Paul Braun Prize ’09.

- Melissa Smith (M.Arch ’11 / Opt. 3 + MCP ’11) Aging Modernism. Based on recognition that “Modernism is over a century old. While its buildings emerged within a spectrum of historical political situations, today they exist in a variety of quite different contexts, climatically, socially and politically.” In addition to the Branner, Smith received the Gerald Laub ’09 and Field Paoli ’08 Prizes.

Previous Branner Fellows in the period under review include:

2008 Natalia Echeverri (M.Arch / Opt. 2 + MCP ’09)
    Luke Perry (M.Arch ’09 / Opt. 2)
    Asa Prentice (M.Arch ’09 / Opt. 2)

2007 Andrew Ballard (M.Arch ’08 / Opt. 3)
    Yukiko Bowman (M.Arch ’08 / Opt. 3)
    Ivan Valin (M.Arch ’08 / Opt. 2 + MLA ’08)

2006 Lucy Begg (M.Arch ’07 / Opt. 2)
    Marie Sorensen (M.Arch / Opt. 3 + MCP ’07)

2005 Jeffrey Carney (M.Arch / Opt. 2 + MCP ’07)
    Kristine Dykema (M.Arch ’07 / Opt. 2)
    Laura Mezoff (M.Arch / Opt. 2 + MCP ’06)
    Vincenzo Trincia (M.Arch ’07 / Opt. 2)

2004 Jeanne Aquilino (M.Arch / Opt. 2 + MLA ’06)
    Aaron Bruno (M.Arch ’05 / Opt. 2)
    Susanna Douglas (M.Arch ’05 / Opt. 3)
    Corey Griffin (M.Arch ’05 / Opt. 3 + M.S. ’05)
    Cy Keener (M.Arch ’05 / Opt. 3)
    Myrto Miliou (M.Arch ’05 / Opt. 3)

Other awards include:

The T.Y. Lin Prize offers $4,000 to students pursuing a joint project encompassing both architecture and engineering and working towards an M.Arch, M.S. or Ph. D. In the period under review, it was awarded to:

2008 Brian Washburn (M.Arch ’08 / Opt. 3)
2006 Erin O’Mahoney Cubbison (M.Arch / Opt. 2 + MLA ’08)
2004 Ian Kelso (M.Arch / Opt. 3 + M.S. ’05)

Chester Miller Fellowships ($500-$2000) are awarded for travel and research related to Master’s (M.Arch or M.S.) thesis work. In the period under review, it was awarded to:

2009 Chelsea Johnson (M.Arch ’09 / Opt. 3)
    Kimberly Suczynski (M.Arch ’09 / Opt. 2)

2008 Christina Kaneva (M.Arch / Opt. 3)
    Amy Fashimpar (M.Arch ’08 / Opt. 2)
    Bin Wang (M.Arch ’08 / Opt. 2)

2007 Forrest Frazier (M.Arch ’07 / Opt. 3)
    Wen Guo (M.Arch ’07 / Opt. 2)

2006 Ariane Fehrenkamp (M.Arch ’07 / Opt. 3)
    Mark Hogan (M.Arch ’06 / Opt. 3)
    Karen Mauney-Brodek (M.Arch / Opt. 3 + MCP ’06)
    Andrew Volckens (M.Arch ’07 / Opt. 2)

2005 Ronald Dean (M.Arch ’05 / Opt. 2)
    Joseph Jacoby (M.Arch ’05 / Opt. 2)
    Samuel O’Meara (M.Arch ’05 / Opt. 2)
    Christopher Sensenig (M.Arch / Opt. 2 + MCP ’05)
    Sannihita Takkalapalli (M.Arch ’05 / Opt. 2)

2004 Jeffrey Evans (M.Arch ’04 / Opt. 2)
    Duncan Henderson (M.Arch ’04 / Opt. 3)
    Jeffrey Jordan (M.Arch ’04 / Opt. 2)
    Ines Lejarraga (M.Arch ’04 / Opt. 3)
    Jenny Li (M.Arch ’04 / Opt. 2)
    Matt Snoap (M.Arch ’04 / Opt. 2)
    Chan Tsin Ching (M.Arch ’04/Opt. 2)

The $1,500 Design Workshops Prize, open only to students in the M.Arch program, is intended to encourage study related to the practical aspects of construction, often used by students to build installations or large-scale mock-ups related to studio and thesis work. In the period under review, it was awarded to:

2009 Matthew Smith (M.Arch ’10 / Opt. 3)
2008 Group Entry:
  Veronica De La Rosa (M.Arch ’08 / Opt. 3)
  Christian Cutul (M.Arch ’08 / Opt. 3)

2007 Grant Adams (M.Arch ’07 / Opt. 2)

2006 Anton Willis (M.Arch ’07 / Opt. 3)

2005 Cy Keener (M.Arch ’05 / Opt. 3)
  Group Entry:
  Lucy Begg (M.Arch ’07 / Opt. 2)
  Octavio Gutierrez (M.Arch ’05 / Opt. 2)
  Julia Storek (M.Arch ’06 / Opt. 3)
  Andrew Volckens (M.Arch ’07 / Opt. 2)

2004 –Group Entry:
  Susanna Douglas (M.Arch ’05 / Opt. 3)
  Alden William Glauch (M.Arch ’05 / Opt. 2)
  Graham Hill (M.Arch / Opt. 2 + MLA ’04)
  Dong-jin Seo (M.Arch ’05 / Opt. 2)
  Edward Steinemann (M.Arch / Opt. 3 + M.C.P. ’05)

The Gerald Hoshi Memorial Prize offers $1,000 for study of Japanese architecture or the built environment, given to a student ready to begin work on a thesis or dissertation. In the period under review, it was awarded to:

2008 Ivan Valin (M.Arch / Opt. 2 + MLA ’08)

2007 Catherine “Kate” Lydon (M.Arch ’07 / Opt. 3)

2006 Natalie Kittner (M.Arch ’06 / Opt. 3)

The faculty also selects work for prizes acknowledging the best studio project (the Peerless Lighting Prize in Architecture), and excellence in community design (CHF Raymond L. Watson Prize); these prizes range in value from $1,000 to $10,000. The Watson Prize is awarded only to M.Arch students; the others listed are awarded to either undergraduates or M.Arch students, with M.Arch students generally dominating. Finally, the Sandy Hershen Prize, also $1,000, is awarded to an undergraduate or graduate student whose work overall seems particularly linked to socially responsible architecture.

The Peerless Lighting Prize in Architecture in recognition of the best work developed in studio courses was awarded to:

2008 Bin Wang (M.Arch ’08 / Opt. 2)

2007 Kee Hyun Ahn (M.Arch ’07 / Opt. 2)

2006 Jess Field (M.Arch ’06 / Opt. 2)

The CHF Raymond L. Watson Prize in Community Design, given for work that demonstrates excellence in community design with a particular emphasis on physical form was awarded to:

2008 – Group Entry:
  Matthew Bitterman (M.Arch ’09 / Opt. 2)
  Nicolette Mastrangelo (M.Arch / Opt. 2 + M.C.P. ’10)
  Luke Perry (M.Arch ’09 / Opt. 2)

2006 Byungki Kim (M.Arch ’06 / Opt. 3)

2005 Group Entry:
  Susanna Douglas (M.Arch ’05 / Opt. 3)
  Cari Rosner (M.Arch ’06 / Opt. 3)

2004 Tsin Ching Chan (M.Arch ’04 / Opt. 2)

M.Arch students who received the Sandy Hirshen Prize for direction linked to a socially responsible architecture were:

2009 – Anna Konotchick (M.Arch ’10 / Opt. 2)

2007 – Lucy Begg (M.Arch ’07 / Opt. 2)

2004 – Margaret Sledge (M.Arch ’05 / Opt. 3)

A University Prize, the Eisner, is given to students in the arts from across campus, in an amount that ranges from $2,000 to $10,000. M.Arch students who have received the Eisner Prize during the period under review were:

2009 – Alan Tse (M.Arch ’09/Opt. 2)

2008 – Veronica De La Rosa (M.Arch ’08/Opt. 3)
  Bin Wang (M.Arch ’08/Opt. 2)

2006 – Jess Field (M.Arch ’06/Opt. 2)

2005 – Aaron Brumo (M.Arch ’05/Opt. 2)

2004 – Jacob Atherton (M.Arch ’04/Opt. 2)
  Cy Keener (M.Arch ’05/Opt. 3)
  Brendon Levitt (M.Arch ’04/Opt. 3)
  Daniel Lee (M.Arch ’05 / Opt. 2)
3.1.3 ARCHITECTURAL EDUCATION AND REGISTRATION

Students are provided with the humanistic knowledge, scientific skill and hands-on work needed for the development of a professional architect. Having acquired competence in design, technical systems, and historical and human factors, many graduates of the M.Arch program seek professional registration. Their course work serves them well in establishing the foundation for the examinations and continued profession internship development necessary for registration. They leave the program with an exceptionally broad understanding of the field and the necessary skills for benefitting from additional instruction and internship experience. They become successful and responsible professionals because they have developed their fundamental orientation within an intellectual context that is both enthusiastic and questioning, committed to achievement and to the larger societal context.

REGISTRATION REQUIREMENTS IN THE STATE OF CALIFORNIA

The State of California, unlike others, does not require graduation from an accredited program for licensing, only “Eight years of post-secondary education and/or work experience … (including at least one year of work experience under the direct supervision of an architect licensed in a U.S. jurisdiction or two years of work experience under the direct supervision of an architect registered in a Canadian province).” Nonetheless, our students prepare to practice throughout the country and the world, and our goal is to provide an education that allows them to succeed in achieving licensure in numerous settings.

ALUMNI PERFORMANCE ON THE ARE

An important indicator of our success in effectively communicating expectations of architectural practice is evidenced in our students’ Architectural Registration Exam (ARE) pass rates. In the years shortly after our 2003 visit, these pass rates were below state and national norms, and did not reflect our commitment as an institution to overall excellence. Our 2003 NAAB accreditation review demonstrated its direct value by bringing these issues out, and we responded with curricular changes that have had substantive impact (see Section 2.1, Summary of Responses to Team Findings.) More recent ARE statistics published by the State demonstrated that our students’ performance has improved and in many areas they now surpass the state and the national averages.
INTERNSHIP DEVELOPMENT PROGRAM

In the Fall of 2010, Mary Comerio will establish our IDP instruction. She currently works with our undergraduate program and internship coordinator and will expand her role to IDP Education Coordinator.

ARCHITECT REGISTRATION EXAM PASS RATES, ARE 3.0^26

UCB/California*/national statistics; shaded areas indicate where UCB pass rates are below national and state averages.

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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</table>

* The State of California offers the ARE to graduates from non-accredited and foreign schools; this statistic is for graduates of all U.S. architecture schools, and may include some who attended non-accredited institutions.

* * Through June 30, 2009: national statistics not yet available.
ARCHITECT REGISTRATION EXAM PASS RATES, ARE 4.0

The ARE 4.0 was released July 1, 2008; NCARB is not yet publishing national statistics. Overall the number of candidates taking this version of the exam are fewer and may not be as statistically useful, although they still demonstrate our students tend to perform well above statistical averages. Categories marked “N.A.” indicate there were no candidates in that category.

<table>
<thead>
<tr>
<th>Category</th>
<th>2008</th>
<th>2009*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bldg design &amp; construction</td>
<td>N.A.</td>
<td>50% UCB, 46% Calif.</td>
</tr>
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<td>Bldg systems</td>
<td>100% UCB, 55% Calif.</td>
<td>80% UCB, 55% Calif.</td>
</tr>
<tr>
<td>Construction documents</td>
<td>50% UCB, 52% Calif.</td>
<td>83% UCB, 64% Calif.</td>
</tr>
<tr>
<td>Programming planning</td>
<td>100% UCB, 44% Calif.</td>
<td>100% UCB, 58% Calif.</td>
</tr>
<tr>
<td>Site planning &amp; design</td>
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</tr>
<tr>
<td>Structural</td>
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</tr>
<tr>
<td>Schematic design</td>
<td>100% UCB, 63% Calif.</td>
<td>100% UCB, 57% Calif.</td>
</tr>
</tbody>
</table>

* The State of California offers the ARE to graduates from non-accredited and foreign schools; this statistic is for graduates of all U.S. architecture schools, and may include some who attended non-accredited institutions.

3.1.4 ARCHITECTURAL EDUCATION AND THE PROFESSION

The central purpose of our educational program is to advance knowledge of the art and science of architecture and its consequences for our society. This philosophy pervades every aspect of the professional program. Our students work with faculty who are involved in all stages of the advancement of the profession, from exemplary practice to technical innovation and cultural evaluation. Every semester we have one or more visiting professionals – national and international. Students attend lecture series and colloquia rich with practitioners in architecture as well as allied disciplines. Through these venues, students learn about the diverse and collaborative roles in practice, relations with clients, and the decisions practitioners continually weigh between private and public good. While in the program, our students have numerous opportunities to travel in the context of design and research – studios, courses and fellowships immerse our students in diverse contexts with distinct cultural, economic and regulatory environments.
PROFESSIONAL COMMUNITY IN THE LIFE OF THE SCHOOL—OUR FACULTY

A substantial number of our faculty are active in the profession as practitioners and as researchers studying professional practices. There are eight faculty members with active practices, three more faculty members (including one listed below) who make design the center of their creative work, and two continuing lecturers active in our M.Arch program who also maintain architectural offices. Students not only learn of our work in the classroom, but also are often employed in our offices and in our research on offices. The following faculty members all maintain or have maintained architectural practices during the period of review, in addition to their academic commitments:

• Richard Fernau, FAIA, is a partner in Fernau and Hartman, with offices in Montana and Berkeley. The firm has been a leader in green design since the initial waves of interest in sustainability three decades ago; they also reflect the Bay area’s regional roots in their respectful awareness of vernacular architecture. Fernau and Hartman’s projects include everything from award-winning office interiors and handsome homes to barn renovations.

• Susan Ubbelohde’s firm, Loisos + Ubbelohde offers a full range of architectural design services, from feasibility through construction administration, and also cutting-edge consulting on lighting and shading design, energy efficiency, alternative energy sources, glazing specifications and high performance facades, and LEED/sustainability consulting. The office served as consultants on the New York Times Building by Renzo Piano and the Apple Cube on Fifth Avenue in New York City by Bohlin Cywinski Jackson; their impact is seen in Europe, the Middle East, and right around the corner.

• René Davids, FAIA, is a principal of Davids Killory Architecture, best known for its detail-oriented, award-winning work in affordable housing. Davids and his partner, Christine Killory, are also series editors for AsBuilt: Theory of Practice, published by Princeton Architectural Press. The first volume, Details in Contemporary Architecture, was published in 2006; the second volume, Detail in Process, in 2008.

• Mark Anderson’s award-winning partnership, Anderson Anderson Architecture, began in design-build and is still best known for its focus on the practicalities of construction while achieving design excellence. The firm has a particular interest in prefabrication and in 2007, Mark and Peter Anderson published the book Prefab Prototypes: Site-specific Design for Offsite Construction, with Princeton Architectural Press.

• R. Gary Black, P.E., who teaches our structures classes, is a registered structural engineer; his firm, Integrated Structures, offers structural engineering consulting and design/build services, and holds a General Contractor’s license as well. Black has a particular interest in innovative building systems employing alternative building materials. He holds two patents for his Spar Membrane Structure, utilizing straw bales, which takes advantage of night cooling by the thermal mass of its concrete membranes surrounding an insulating core, one for its unique system controlling moisture and the other for the bracing and construction of the wall. He has also patented a “Hydraulically Insulated Panel” roof, with internal tubing that collects and transfers solar heat gain.

• Renee Chow’s partnership, Studio Urbis, designs buildings and urban places that are informed by and contribute to their natural, social and built environment. Much of their recent commissioned work is in Bay area, and more recently the firm has begun designing in China. Her book, Suburban Space: The Fabric of Dwelling was published by the University of California Press in 2002; it received the AIA Research and Technology Honor Achievement Award from the AIA California Council in 2003.

• Jill Stoner’s former practice, Stoner Meek Architecture and Urban Design, constructed over twenty projects in San Francisco and Oakland between 2001 and 2009, primarily public schools, libraries, and non-profit institutions. The firm won a San Francisco AIA award in 2007 for the East Oakland School of the Arts, and was a winner in the national competition Dead Malls in 2003. In 2003, they won the three-state competition for the San Francisco Portola Branch Library, which opened in 2009. Since 2007, Stoner has focused more on departmental service and the development of new courses. She continues to pursue national and
international competitions with a visionary and ecological focus, and in 2009 was one of three winners in the Imagining Recovery national competition. William Stout Publishers published her book Poems for Architects in 2001.

• Lisa Iwamoto’s practice, IwamotoScott Architecture, pursues architecture as a visionary form of applied design research: interiors, full-scale fabrications, museum installations, exhibitions and imaginative responses to design competitions. Iwamoto’s book, Digital Fabrications: Architectural and Material Techniques, was published this year by Princeton Architectural Press.

• Ronald Rael’s recently established firm, Rael San Fratello Architects, has to date been most visible for its work in exhibitions and competitions. Rael’s book Earth Architecture, published by Princeton Architectural Press in 2008, explains the techniques of building with earth – rammed earth, mud brick, or cob – and illustrates the rich heritage of architecture made with what many mistake for a mundane material.

A handful of local professionals also have long-term commitments to teaching in the Department as continuing lecturers. These include:

• Marvin Buchanan, FAIA, Continuing Lecturer and principal, Buchanan Architects

• Roddy Creedon, AIA, Continuing Lecturer and principal, Allied Architecture and Design

• William W. Di Napoli, Continuing Lecturer and principal, d’NA (diNapoli Architects)

• Keith Plymale, AIA, Continuing Lecturer and founding partner, Volume 21: Office for Architecture

Two Continuing Lecturers and one Adjunct with valued specialties teach once each year:

• Charles Salter, Continuing Lecturer and principal, CM Salter Associates. Arch 144 (formerly 149), Introduction to Acoustics.

• Steven M. Sharafian, Esq., Continuing Lecturer and Partner, Long & Levit LLP. Arch 208 (formerly 229), Introduction to Construction Law.

• Charlie Huizenga, Adjunct Associate Professor and Principal, Adura Technologies. Arch 240: Advanced Study in Energy and Environment (simulation of building performance).
**PROFESSIONAL COMMUNITY IN THE LIFE OF THE SCHOOL: VISITING PRACTITIONERS**

We are fortunate that two endowments allow us to hire leading national and international professionals to lead M.Arch studios; at times one architect may be able to make a semester-long commitment, while at others, we invite several architects to teach over the course of a semester. The Howard A. Friedman Visiting Professorship in the Practice of Architecture Fund has brought the following faculty members to our department to teach M.Arch studios (see Section 3.7.2 Visiting Lecturers and Critics):

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td>2009-2010</td>
<td>Stephen Cassell,</td>
<td>Greg Otto,</td>
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<tr>
<td></td>
<td>ARO (New York)</td>
<td>Buro Happold (Los Angeles)</td>
</tr>
<tr>
<td>2008-2009</td>
<td>Mary Griffin, FAIA &amp; Eric Haesloop,</td>
<td>William Fain &amp; Scott Johnson,</td>
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<tr>
<td></td>
<td>Turnbull Griffin Haesloop (SF)</td>
<td>Johnson Fain (Los Angeles)</td>
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<td></td>
<td>Ogrydziak / Prillinger (SF)</td>
<td>Ogrydziak / Prillinger (SF)</td>
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<td>2007-2008</td>
<td>Kang Kiang, Chong &amp; Partners</td>
<td>Kevin Daly,</td>
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<td>Brett Terpelik, Renzo Piano Bldg Workshop</td>
<td>Daly Genik (Santa Monica)</td>
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<td>Zöe Prillinger &amp; Luke Ogrydziak,</td>
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<td></td>
<td>Ogrydziak / Prillinger (SF)</td>
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<tr>
<td>2006-2007</td>
<td>Solano Benitez, Gabinete de Arquitectura</td>
<td>Tim Culvahouse,</td>
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<td></td>
<td>Angelo Bucci, SPBR (Sao Paulo, Brazil)</td>
<td>Public Architecture (SF)</td>
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<td>Rafael Iglesias (Argentina)</td>
<td>Hassan-Uddin Khan</td>
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<td>Roger Williams University</td>
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<td>Frederik Schmidt, (Germany)</td>
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<td>2005-2006</td>
<td>Michael Maltzan, Michael Maltzan Arch. (L.A.)</td>
<td>Hitoshi Abe, Atelier Hitoshi Abe (Sendai)</td>
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<td>Stephen Shortridge, Dallas Shortridge (Culver City)</td>
<td>Mark Dytham &amp; Astrid Klein, Klein Dytham (Tokyo)</td>
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<td>Robert Swatt, Swatt Architects (Emeryville)</td>
<td>Takaharu &amp; Yui Tezuka, Tezuka Architects (Tokyo)</td>
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<td>2004-2005</td>
<td>Fred Dust, IDEO (SF)</td>
<td>Eric Bunge &amp; Mimi Hoang, nARCHITECTS (NY)</td>
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<td></td>
<td>Wes Jones, Jones, Partners (Calif.)</td>
<td>John Frane &amp; Hadrin Predock, Predock_Frane (L.A.)</td>
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<td></td>
<td>Tom Wiscombe, Emergent (L.A.)</td>
<td>Sulan Kolatan &amp; William MacDonald, Kol / Mac (NY)</td>
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<td>Marcelo Spina &amp; Peter Zeller, Patterns (L.A.)</td>
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<tr>
<td>2003-2004</td>
<td>Anne Fougeron Fougeron Architecture (SF)</td>
<td>Isaac Broid (Mexico)</td>
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<td>Sheila Kennedy &amp; Frano Violich, Kennedy &amp; Violich (Boston)</td>
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<td></td>
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<td>Brain Kruth &amp; Liz Ranieri (SF)</td>
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<td></td>
<td>Larry Scarpa, Fugh &amp; Scarp (L.A.)</td>
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</tbody>
</table>
The Joseph Esherick Endowed Fund was established in 1997 in recognition of a former professor’s exemplary role as an architect and educator. The fund is a continuance of the Walter T. Steilberg Fund established in 1983, which also encouraged activities focused on the melding of technology and design. The position is open only to architects with a distinguished background in practice and significant contributions to the making of buildings that integrate the influences of building technology with their design outcomes. The Joseph Esherick Endowed Fund has brought the following faculty members to our department to teach M.Arch studios:

2009  Frederic Schwartz, Frederic Schwartz, Architects (New York)
2008  Peter Testa, MIT, Emergent Design Group (Cambridge, Mass.)
2006  David Erdman, Servo (Santa Monica)
2005  Tom Wiscombe, Emergent (L.A.)

We also, as with many other accredited programs, rely on practitioners as jurors in our reviews; there is a special effort each year to bring a large group of academics and professionals from around the world for our M.Arch thesis reviews in late April.

Professionals have also been invited speakers in many classes across the Department each semester.

And, our students travel to engage with the profession and allied disciplines.

For example, some courses that engage those in practice include:

• ARCH 264, Off-site Fabrication, taught by Dana Buntrock, looks at the demands placed on an architect when working closely with fabricators, whether designing specific building components such as curtain walls or developing whole-unit modules, an area of increasing interest in California’s residential markets. (The seminar is taught yearly in the Fall; it was, unfortunately, cancelled in 2009 to allow time for Buntrock to draft the APR under an unusually compressed schedule.)

• ARCH 265, Japanese Craft and Construction, taught by Dana Buntrock, challenges student teams to engage in original research on the development of innovative buildings designed by Tokyo-based architects. The students interview architects, engineers, and fabricators, developing a deeper understanding of a different nation’s professional practice models. This class, which requires significant financial support, is taught every other year.

• ARCH 249, High Performance Facades, was taught with great success in Spring 2007 and 2009 by Susan Ubbelohde. The course featured local practitioners and building science experts as speakers and reviewers, most from the area, but some from as far away as New Zealand, drawing on Ubbelohde’s rich network of colleagues concerned with high performance buildings. In particular, Steve Selkowitz, Eleanor Lee and other researchers from Lawrence Berkeley National Labs offered technical lectures, access to current research and an introduction to lab facilities used in thermal and lighting performance evaluations. One reviewer noted that, “The seminar foregrounded critical design issues not normally presented in either architecture or engineering schools: performance, comfort, seasonal and diurnal cycles, integration of passive and active systems, and design ethics. The students’ abilities to integrate analytical tools in an informative, and sometimes generative, feedback loop was particularly impressive. This shows uncommonly advanced synthetic ability and flexible design skills.” We expect this course to be offered again.
PROFESSIONAL COMMUNITY IN THE LIFE OF THE SCHOOL: LECTURE SERIES- COLLOQUIA

We draw on a diverse cross-section of national leaders in the profession and allied disciplines through symposia, colloquium presentations, and a public lecture series. (The lecture series and lecturers are further discussed in Section 3.7.2 Visiting Lecturers And Critics.)

Our students have exceptional opportunities to closely observe and learn from a number of active practitioners in the field, and to participate in close study of the working methods and evolving concerns in architecture. We have speakers in colloquia regularly offered by all three of the departments, and in other ad hoc events. Students cross register for the colloquia – they get one-unit of credit.

2007 Architecture Colloquium: Design for Sustainability

- Kirsten Ritchie, Gensler: Return on Investment: The Impact of Green Buildings on the Triple Bottom Line
- Dave Johnson, McDonough and Partners: Toward Eco-Effective Architecture and Community Design
- Bry Sarte, Sherwood Design Engineers: Water as a Nexus for Urban Design Transformation
- Joel Loveland, University of Washington: Light Reconstruction: Lessons about Daylighting from the Pacific Northwest
- David Bushnell, 450 Architects: Advocate, Educate, Design, Sustain: An Integrated, Community-Based, Socially Responsible Design Process
- Cole Roberts, ARUP: Integrated Design and the Role of Life-Cycle Analysis
- Bruce Hammond, Hammond Fine Homes: Sustainable Design and Construction: A Builder’s Viewpoint
- Panel: Women in Green

More on the above speakers can be seen at: http://www.ced.berkeley.edu/departments--programs/arch/fall-2007-colloquium.htm

2006 Architecture Colloquium: Design for Sustainability

- Sim Van der Ryn, AIA: Design for Life
- Henry Siegel, FAIA, Siegel & Strain: Redefining Green
- Kevin Danaher, Global Exchange: Designing the Green Economy
- Darren Bouton, Pacific Energy Center: Photovoltaics
- Sandy Mendler, AIA, Vice President and Sustainable Design Principal, HOK: Green Building Confessions
- Rick Diamond, LBNL: Energy Performance
- Dan Smith, DSA Architects: Straw Bale & LEED
- David Easton, Rammed Earthworks: Mass in the New Millennium: How Earth-Based Architecture Can Succeed Against All Odds
- Paul Kephart, Rana Creek: Living Roofs
- Anthony Berheim, FAIA, Principal of Green Design at SMWM: Real World Green
- Deva Rajan and Chris Avant, Canyon Construction: Green Building Construction
- Marty Keller, Director of Construction Management at First Community Housing: Green Multifamily & Affordable Housing
- Panel Discussion: Building a Career in Sustainability

2005 Architecture Colloquium: Alumni and the Academy

Troubled Bridge over Water

- Ephraim Hirsch, Structural Engineer, member, Metropolitan Transportation Commission’s Environmental Design Advisory Panel
- John King, Architecture Critic, San Francisco Chronicle
- Donald MacDonald, architect, self-anchored span
- Randy Renschler, Metropolitan Transportation Commission’s Director of Legislation and Public Affairs
- Steve Schnaidt, Staff Director, California State Senate Transportation Committee

The Edge of the Bay

- Karen Alsichler, SMWM
- Neil Sekhri, Attorney
- Steve Castelberry, CEO Water Transit Authority
- Marc Holmes, Baylands Restoration Project Manager,
Baylands Institute
• Joe LaClair, Senior Planner, Bay Conservation and Development Commission

Gimme Shelter
• Will Travis, Executive Director, Bay Conservation and Development Commission
• Janet McBride, Director of Regional Planning, Association of Bay Area Governments
• Mike Ghielmetti, Signature
• Stuart Cohen, Executive Director, Transportation and Land Use Commission
• David Baker, David Baker and Partners, Architects

The Landscape Architecture Colloquium is a series of lunchtime talks. M.Arch students are enrolled or freely attend these presentations. Speakers included:

Fall 2009 LAEP Colloquium
• Jie Hu: Whose Right to the City?
• Marcia McNally: Green Growth or Green Washing: What should American Environmental Planners and Designers be Doing in South Korea?
• Laura Hall: The Transect Based SmartCode: A Model Code for the Building, Block, Neighborhood, Town, and Region
• Peter Bosselmann: Urban Transformation: Understanding City Design and Form
• Patsy Eubanks Owens: Youth Voices for Change
• Tim Sullivan: Peak to Playa: Landscape and Urbanity in the Great Basin
• Michael Dear: Geohumanities: Art, Science and Text on the Edge of Place
• Carolyn Finney: Bamboozled

Spring 2009 LAEP Colloquium
• Brooke Ray Smith: Adventure in Sustainable Urban Water Management
• Alethia Harper: Food Systems and Urban Agriculture in Six Latin American Cities
• Neil Hrushowy: Pedestrian-Friendly Design for Fisherman’s Wharf

Spring 2008 LAEP Colloquium
• Nancy L. Fleming: Contextual Design in Yunnan Province
• Renee Y Chow: Cultivating the Field: Five Strategies for City Building
• Annmarie Adams: Medicine by Design
• Kaiping Peng: Title TBA
• Richard Walker: The Country in the City
• Masami Kobayashi: Enriching Neighborhood Qualit in Multi-layered Tokyo
• John S Loomis: California Academy of Sciences Green Roof
• Stephen Few: Show Me the Numbers
• Darin Jensen: Good Map: Toward a Conscientious Arrangement of Spatial Attributes
• C. Greig Crysler: Title TBA
• Susan and Michael Southworth: Three Centuries of Boston’s Great Public Spaces and Private Garden Squares
• Shannon May: Ecological Design and the Paradox of the Proxy: Lessons from Bill McDonough’s Huangbaiyu
• Peter Bosselmann: Berkeley Students Working in China on the Future of a Water Village in the Pearl River Delta and on the Grand Canal in Hangzhou

Spring 2008 LAEP Colloquium
• Patrick Huber: Landscape Ecology and Connectivity
• Dr. Wei Luo: Google Earth and Google Maps Uses for Planning Environmental Monitoring
• Joe McBride: Managing Older Urban Forest Stands in San Francisco
• Stephen Wheeler: Planning and Design Strategies to Respond to Climate Change
• Yougryel Fyu: Natural Ventilation of the Traditional Korean Home
• Deni Ruggeri: Revisiting Utopia
• Dr. William Eisenstein: California Delta Planning
• Paul Kibel: Rivertown: Rethinking Urban Rivers
• Louise Mozingo: The Emergence of American Corporate Landscapes

3. The Thirteen Conditions of Accreditation
3.1.5 ARCHITECTURAL EDUCATION AND SOCIETY

A concern for the evolution of society, in all its diversity of conditions, backgrounds and cultural aspirations, is a central characterizing concern of our students and faculty. Programs are designed to bring students into contact with a wide range of environments and cultures and to regularly confront with the need to reconsider normative modes of operation in order to be prepared to meet evolving conditions.

Students in our program operate within a context of global understanding. By intention, we have numerous course offerings and studios that make our students aware of the diversity of cultures, the agents who shape the built environments, and the tools and strategies to work within complex systems. We have explicit connections to international programs such as the International Association for the Study of Traditional Environments as well as the formal programs of the nine-campus Education Abroad Program of the University.

Our program has a sub-area of study “Social and Cultural Processes in Architecture and Urbanism” with a wide range of offerings that address social and environmental problems. Students gain an understanding of architecture as a social art in these courses as well as in the studio.

We are a large, public research university with a tradition of activism and advocacy. Our contributions to society as architects and intellectuals are central to our existence. Many examples of our concern for our ethical contributions to society exist throughout this document. Here, we highlight other specific contributions.

LEADING BY EXAMPLE

Our faculty and students face the problems of society and environment head on.

- Cris Benton played a leading role in the formulation of the Pacific Energy Center in San Francisco and its continuing education classes for professionals and the general population, programs in post-occupancy building measurement, daylighting, and solar control.
- Mary Comerio, as noted elsewhere, spearheaded a seismic review that has changed the face of our campus and many others, increasing life safety for tens of thousands of people who work at our university each day.
- Raveevam Choksombatthai, assisted by our colleague Andy Shanken, was the only one from her native land who was a finalist in Thailand’s 2006 Tsunami Memorial and Museum International Design Competition, proposing a structure both creative and compassionate to commemorate the single-day loss of nearly a quarter of a million lives.
- C. Greig Crysler is Program Director of the Arcus Endowment in Fall 2009 and Greg Castillo will be in Spring 2010. Continuing Lecturer Roddy Creedon is a member of the Advisory Board and Award Committee. Through annual lectures and a scholar-in-residence program, the endowment fosters an awareness of the role of Lesbian / Gay / Bisexual / Transgender / Queer (LGBTQ) communities in the history of architecture, combats homophobia, and affirms the contribution of LGBTQ communities in education and professional practice.
- Gary Black’s innovative building systems strive for Zero
Net Energy through integrated elements that involve thermal mass and passive heat transfer systems embedded in walls and roof panels. He describes his current professional passions as striving for seismically safe, fire resistant, energy efficient architecture.

• Maria Paz Gutierrez, as part of her work, addresses how we are rethinking design research methods for architecture in response to rising water. In Fall 2009, Gutierrez spoke on this issue at the UC Berkeley Energy and Resources Collaborative symposium, Battling The Sea Level Rise: Climate Adaptation Plans in California and Lessons for Developing

• In 1974, our department accepted and embraced a severely disabled student, leading to a cascading set of events: first, other students turning to her to understand accessibility issues, then more disabled people brought into the studios as consultants, and ultimately the publication by Raymond Lifchez and others of two books which were not only award-winning, but whose influence went far beyond Wurster Hall: Design for Independent Living: the Environment and Physically Disabled People and Rethinking Architecture: Design Students and Physically Disabled People. Professor Lifchez’ contributions continue: he is on the board of the new UC Berkeley Undergraduate Program in Disability Studies. In 2002, he received the Association of Collegiate Schools Of Architecture Distinguished Professor Award and the Berkeley Prize, established and administered by Lifchez received the 2009 Institute Honors for Collaborative Achievement from the American Institute of Architects (AIA).

FURTHER EVIDENCE: RECENT GRADUATES COMMITTED TO PUBLIC SERVICE

Our department has a long and continuous history of concern for the social and environmental issues that confront architects. Our students are aware of social equity and its challenges to the profession because of their own economically and internationally diverse backgrounds. However, we do not look like the Berkeley of the 1960s and 1970s. This is a different era and we work with different tools: scientific study, public policy, inspiring architecture.

• Yes Duffy (B.A. ’03, M.Arch / Opt.2 + MCP ‘10) was selected as one of Architecture for Humanity’s 2008 Design Fellows while in the M.Arch, allowing him to run collaborative community charrettes resulting in a place for anyone to “get resources, get design, give design, and collaborate on local architectural endeavors.” Duffy also co-founded the local San Francisco chapter of Architecture for Humanity; he intends to return to the organization upon graduating.

• Margaret Sledge (M.Arch ’05 / Opt. 3) came to Berkeley from Auburn’s Rural Studio. She wrote, “At Cal I was able to participate in the Y-Plan program through DCRP, and was awarded the Sandy Hirshen Prize (’04)...it was great to have flexibility to take classes in other departments.” The Y-PLAN (Youth – Plan, Learn, Act, Now) is an interdisciplinary course and an award-winning initiative; students in urban planning, design, education, and other related disciplines learn how to engage youth as genuine stakeholders and participants in local planning projects. UC Berkeley students work side-by-side with local high school students for ten weeks, teaching them fundamentals of community development by engaging in real world planning projects. (For more on the program, see http://www.edutopia.org/y-plan-urban-city-planning.) After graduating in 2005, Sledge worked in Mumbai, India for about six months on slum redevelopment projects; she returned to the U.S. and was in private practice until the economy changed. Now she is back at the Rural Studio – as an Assistant Professor.

• John Cary (M.Arch ’03 / Opt. 3) is executive director of Public Architecture, an organization that promotes pro bono work, which “puts the resources of architecture in the service of the public interest. …and act[s] as a catalyst for public discourse.” To celebrate World Environment Day 2005, Cary and Department alumni built a demonstration house called “Scraphouse” across from San Francisco City Hall; it became the subject of a National Geographic
Documentary. The same year, with a grant from the National Endowment for the Arts, Cary helped Public Architecture launch “1% Solution,” promoting pro bono work by architectural professionals. In 2009, Public Architecture’s Day Labor Station won the Global Innovation Prize recipient for the Holcim Awards for Sustainable Construction. The Holcim Awards seeks to illustrate the broad scope of innovative ideas that improve lives, reduce environmental footprints and lead the way to a more sustainable planet.

• Jess Zimbabwe, née Wendover, AIA, AICP, LEED-AP (M.Arch / Opt. 3 + M.C.P. ’03), writing for the AIA, argued, “…architects will need to be able to explain why the world should build the solutions to the social problems created by unguided development. Taking ownership of this kind of proposal pitching can help emerging architects practice proving their relevance to groups that are working toward a better vision of the future of the built environment. Undertake a market study (or, find out how what you want to do is useful to someone)…”31 She was a Rose Architectural Fellow at Urban Ecology in Oakland, and is now Senior Vice President at the Urban Land Institute and Executive Director at the Rose Center for Public Leadership in Land Use in Washington, D.C. The mission of the Daniel Rose Center is to achieve and support excellence in land use decision making; Jess serves as the Rose Center’s first Executive Director. Jess was awarded Berkeley’s Branner Traveling Fellowship in 2002, and visited 27 national capitals, researching public use of space in and around parliament buildings. She also received the Architecture Department’s Graduate Instructor of the Year Award. Jess received a Comparative Domestic Policy Fellowship from the German Marshall Fund, and was a 2004-2005 Fellow of the Women’s Policy Institute of the Women’s Foundation of California.

• Emily Pilloton (B.A. ’03) founded Project H Design, “a charitable organization that supports, creates, and delivers life-improving humanitarian product design solutions.”32 She also recently authored Design Revolution: 100 Products That Empower People (Metropolis Books, 2009). Pilloton is not only our faculty’s student, she was also influenced by the teaching of our Graduate Student Instructors, and is our students’ student.

• Nathan Brown (M.Arch ’09 / Opt. 3 + M.S. ’10) was selected as the AIAS/COTE 2009 Summer Scholar, a research award received following a competitive application process. He wrote, “My study investigated the energy performance of buildings recognized by the Top Ten Green Projects award from the American Institute of Architects Committee on the Environment (COTE). … I first worked to gather actual energy use data from as many of these projects as possible by making contact with architects, public officials, organizational leaders and building managers. … I also researched methods of benchmarking the data, choosing to compare to the energy use of a typical building of a similar type using EPA’s Portfolio Manager, either by calculating an ENERGY STAR© rating or by comparing the energy use to a national average for a similar building type. Finally, I developed a methodology to further study buildings. … I selected three buildings from the study and conducted a series of phone interviews, revealing crucial aspects of each design process which will be helpful to practitioners in thinking about ways to improve the process for design of energy efficient buildings.”33
[Blank]
3.2 PROGRAM SELF-ASSESSMENT PROCEDURES

The Department of Architecture is an exceptionally strong and varied place for the study of architecture. Our offerings in design studios and diverse study areas with numerous elective offerings make it a place in which students can shape an individual program that is comprehensive in coverage, intensely demanding, and sufficiently structured to lay the groundwork for continuing advancement within a broadly defined conception of the profession. To meet changes in the needs of our students, faculty, the profession and the environment, reassessment and appraisal are a regular part of our academic procedure including on-going feedback procedures, annual reviews, NAAB visits, and University reviews.

Of our standing departmental committees, the M.Arch committee is the key committee charged with on-going oversight and assessment of the M.Arch program. This group typically involves six faculty members, two Student Representatives, and the Graduate Admissions Officer. The M.Arch program and committee is directed by the Chair of Graduate Advisers, Jill Stoner (see 3.1.1 on Governance.)

PROGRAM MISSION

The M.Arch committee annually reviews the mission statement and NAAB Perspectives to assess the whether the program mission and NAAB conditions are being fulfilled. The committee makes recommendations for revisions, if required, that are then brought to the full faculty for discussion and vote.

STUDENT ASSESSMENTS

Student assessment of the program curriculum and learning context is on-going. Students provide feedback to their Graduate Advisor, Graduate Student Affairs Officer, and Chair of Graduate Advisors. Students can also give their feedback to their Student Representatives to bring to the M.Arch committee or the Graduate Advisor in monthly meetings. If actions are needed, the issues are transmitted to the Chair by the Graduate Chair and incorporated into the agenda of the full faculty. Lastly, our students complete individual course evaluations.
FACULTY ASSESSMENTS
During the academic year, the faculty meets regularly, roughly once a month, for periods of ninety minutes to three hours, where issues of curriculum structure, academic content and organizational operations are regularly assessed. The Department Chair calls these meetings and invites faculty to add items to the agenda. Longer meetings, scheduled on Fridays, are used to achieve consensus on ways to address challenges facing the program, respond to important work that has shared responsibilities, and discuss new efforts and initiatives. Periodically, we have faculty retreats, typically one- or two-day meetings to collectively assess our curricular goals and directions for all programs, directed toward developing a three-year strategic plan, revising learning objectives and curriculum for each program, and reviewing the fulfillment of the NAAB Conditions for the M.Arch program. And, as described above in Student Assessments, the M.Arch committee provides a vehicle for on-going assessments contributed by students, faculty and staff that allows us to make changes in the course of any year.

ALUMNI ASSESSMENTS
The CED Alumni Association allows our graduate to stay involved with the College and program. From this body, we receive informal assessments of the program, and we are exploring more formal way to use the Alumni Association for both short and long-term assessments of our program.

UNIVERSITY ASSESSMENTS
At the University level, every academic unit is regularly peer reviewed to ensure that a University wide standard of excellence is maintained and that schools and departments have the opportunity to plan strategically for the future. Academic program reviews are designed to elicit input from faculty, students and staff of the unit under review. Each unit undertakes a self-study, assessing its intellectual agenda, its programmatic goals and resources, and identifying critical challenges and opportunities facing it. The unit is supported in this effort by data provided by the Office of Planning and Analysis. Another key component of the review process is the visit of a carefully selected external review committee, accompanied by the Senate Liaison. The committee writes a report based on its interviews with faculty, students, and staff and relevant review documents. Reviews culminate in an outcome letter that delineates action items for units, deans and central administrators, and follow-up is monitored by the office of the Vice Provost for Academic Planning and Facilities.
The Department is going through its Academic Program Review in 2009-10, coincidentally the same year as the NAAB review. Our Self-Study Report and External Review Committee visit took place during Fall 2009, and there are follow-up activities planned for Spring 2010. In preparation, a self study was conducted by faculty through the Fall of 2008 and Spring of 2009, with regular discussion among small faculty groups on a series of topic-specific reports. The M.Arch program was a specific area within the self-study. In short, every member of the faculty had multiple opportunities to contribute to the discussion and its outcome in an intensive process that continued through much of 2008 and 2009.
3.3 PUBLIC INFORMATION

GENERAL CATALOG OF THE UNIVERSITY ON-LINE AND PRINT CATALOG

Program Description

Undergraduate Program. Undergraduates enroll in a four-year program leading to the Bachelor of Arts degree with a major in architecture.

The undergraduate program in architecture combines required courses in environmental design and architecture with opportunities for highly varied individual programs. Through its core courses, the program offers a broad introduction to the field of architecture, and through studies in the various areas it provides opportunities to prepare for specialization in the field in the areas of architectural design and representation, architectural technologies and building performance, architectural history, and society and culture. In addition to offering a sound and well-rounded education, undergraduate studies can also provide pre-professional competency for entry-level employment in architecture, the option for graduate work in architecture, or further studies in a related environmental design field. At the lower-division level, students take an introductory course in environmental design, a two-course studio sequence in drawing and design, prerequisite courses in calculus and physics, and breadth area courses in natural sciences, social and behavioral sciences, historical studies, international studies, philosophy and values, and arts and literature. At the upper-division level, students take a two-course architecture studio sequence, a two-course architecture history sequence, three architecture "area studies" courses, and three electives within the college. Additional design and technology courses are recommended for students preparing for Master of Architecture programs. Most students are able to take one-quarter of their program as electives.

Accreditation. In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of accredited degrees: the five-year professionally oriented Bachelor of Architecture and the two-to-three-year Master of Architecture. Schools are allowed to offer only one type of accredited program. As such, the four-year Bachelor of Arts in Architecture is not accredited by the NAAB. The Master of Architecture is the accredited professional degree. The undergraduate degree is a foundation for continued education in a professional master's degree program or for employment options in architecturally related areas.

Graduate Programs. The department offers the accredited professional degree Master of Architecture, the academic degree Doctor of Philosophy, and several other degree programs as described below.

The Master of Architecture program is designed to provide students seeking their first accredited professional degree with a comprehensive and challenging education leading to the practice of architecture. Graduate students have the flexibility to choose a variety of paths within a two-to-three-year rigorous program, depending upon previous education and experience. The department makes no restriction as to the field of undergraduate preparation. However, the length of the required residence period, the number of required semester course units, and the specific list of required courses may vary depending upon undergraduate major, professional and other work experience, and previous graduate study, if any.

Additional prerequisites for admission to the professional Master of Architecture program are college-level or equivalent mathematics through analytical geometry and beginning calculus and beginning physics through mechanics.

A required studio each semester introduces design issues through the study of a variety of building types, styles, and sites. The curriculum in technology and building performance, history, society and culture, and professional practice provides the breadth and background for the individual's professional education and career goals. Students who have completed equivalent courses at other institutions may have the requirements waived to allow for more elective units.
The basic course leading to the Master of Architecture degree takes three academic years and requires the completion of at least 72 units during that period of residence. Persons who hold a bachelor of arts or bachelor of science degree with a major in architecture may receive up to one year of advanced standing. The Master of Architecture Committee of the department will determine the specific amount of advanced standing individually for each student at the time she or he first registers for graduate study in the department. Special one-year Master of Architecture programs are available to persons holding the five-year, professional undergraduate degree, Bachelor of Architecture, from an accredited school, or comparable five-year degrees from foreign universities and technical institutes. Source: http://sis.berkeley.edu/catalog/gcc_view_req?p_dept_cd=ARCH

As of this review, the language from NAAB 2004 Conditions-Appendix A has not been revised in the General Catalog. We are in the process of having the University revise this.

ARCHITECTURE DEPARTMENT-ON-LINE

The Master of Architecture program provides students seeking their first accredited professional degree with a comprehensive and challenging education leading to the practice of architecture. Graduate students have the flexibility to choose a variety of paths within a two-to-three-year rigorous program, depending upon previous education and experience. The department makes no restriction as to the field of undergraduate preparation. However, the length of the required residence period, the number of required semester course units, and the specific list of required courses may vary depending upon undergraduate major, professional and other work experience, and previous graduate study, if any.

Additional prerequisites for admission to the professional Master of Architecture program are college-level or equivalent mathematics through analytical geometry and beginning calculus and beginning physics through mechanics.

Berkeley’s overall excellence as a research institution is well known, and the graduate programs in architecture contribute to this stellar international reputation. Current areas of focus include an emerging position in the application of digital-design media, ongoing studios and seminars that embrace an international perspective, and a continued commitment to our emphasis on design and ecology. These three frameworks, together with our tradition of outstanding scholarship in architectural history and theory, offer new directions for architectural education that transcend traditional disciplinary boundaries. Our faculty are leaders in the fields of design, theory, and building technologies, and are joined each year by endowed professors who teach design studios related to their professional interests.

Master of Architecture Options

The basic course leading to the Master of Architecture degree takes three academic years and requires the completion of at least 72 units during that period of residence. Persons who hold a bachelor of arts or bachelor of science degree with a major in architecture may receive up to one year of advanced standing. The Master of Architecture Committee of the department will determine the specific amount of advanced standing individually for each student at the time she or he first registers for graduate study in the department. Special one-year Master of Architecture programs are available to persons holding the five-year, professional undergraduate degree, Bachelor of Architecture, from an accredited school, or comparable five-year degrees from foreign universities and technical institutes.

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<th>Undergraduate Degree</th>
<th>Program</th>
<th>Required Units</th>
<th>Max. Elective Units</th>
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<tr>
<td>Bachelor of Architecture (five-year professional degree)</td>
<td>Option 1</td>
<td>24</td>
<td>16</td>
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<tr>
<td>Four-year non-professional architecture degree (BA, BS, or BED degree in Architecture)</td>
<td>Option 2</td>
<td>48</td>
<td>25</td>
</tr>
<tr>
<td>BA or BS degree in any non-architecture field</td>
<td>Option 3</td>
<td>72</td>
<td>12</td>
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</table>
Thesis Requirement
A design thesis culminates the program for all Master of Architecture students. With the approval of the chair of graduate advisers, a research thesis option is available.

Accreditation/Licensure
In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on the extent of its conformance with established educational standards.

Master’s degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

The Master of Architecture is the only accredited professional degree offered by UC Berkeley’s Department of Architecture. At present, the degree is accepted for partial credit toward licensure by the California Architects Board.

As applicants to the Option 1 degree program already hold the professional Bachelor of Architecture degree, the one-year program is not accredited by the NAAB.

Endnote: http://arch.ced.berkeley.edu/programs/march

ACCESSING THE NAAB CONDITIONS FOR ACCREDITATION
During the first orientation meeting with incoming M.Arch students, the Chair of Graduate Advisors describes the Conditions for Accreditation as well as the Student Performance Criteria and Checklist. At this time, the students learn about the NAAB website. In addition, the Graduate Office offers a Master of Architecture Handbook that also references the NAAB website, in addition to information and resources for students to get around the Department, College and University.
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3.4 SOCIAL EQUITY

The University of California, in accordance with applicable federal and state law and University policy, prohibits discrimination, including harassment, on the basis of race, color, national origin, religion, sex, physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran. This nondiscrimination policy covers admissions, access, and treatment in University programs and activities.

In brief, the University’s Diversity Statement reads:

Because the University’s core mission is to serve the interests of the state, the University must seek to achieve diversity among its student bodies and among its employees. The State of California has a compelling interest in making sure that people perceive that access to the University is possible for talented students, staff, and faculty from all groups. The knowledge that the University is open to qualified students from all groups, and thus serves all parts of the community equitably, helps sustain the state’s social fabric.34

CRITERIA AND PROCEDURES USED TO ACHIEVE EQUITY AND DIVERSITY IN FACULTY

The Academic Personnel Office develops, implements, and coordinates university-wide outreach, recruitment, and retention efforts intended to enhance the diversity of the University’s graduate student and faculty populations; monitors campus Affirmative Action and Diversity plans at each site to ensure compliance with Federal and State regulations, and with Regent's requirements; maintains contact with Academic Vice Chancellors, Provosts, Deans, and chief academic officers, academic senate members, and senate committees on University of California campuses; serves as resource on matters dealing with Affirmative Action and Diversity for the University of California system.

At their website (http://www.ucop.edu/acadadv/fgsaa/affirmative.html) is the policy for the recruitment and retention of faculty. This brochure describes federally mandated affirmative Action Programs, best practices for faculty recruitment, selection and retention, enforcing the nondiscrimination policy, creating a welcoming campus climate, developing curricular diversity and valuing faculty contributions to diversity.
From Recruitment & Retention of Faculty:

The University of California’s commitment to affirmative action in faculty recruitment and retention serves two fundamental academic values. First, an effective affirmative action program will foster a diverse faculty which will reflect a diverse range of interests, abilities, life experiences, and worldviews that will enhance the academic mission of the University of California. Second, an effective affirmative action program will support equality of opportunity which will ensure that the University of California can serve the needs of our diverse state and also fully utilize the intellectual resources embedded in our diversity.

The enactment of Proposition 209 in 1996 raised many questions about the status of affirmative action programs in faculty hiring, promotion, and retention in the University of California. Proposition 209, which went into effect on August 28, 1997, as Section 31 of Article 1 of the California State Constitution, requires that the University shall not discriminate against or grant preferential treatment to any individual or group on the basis of race, sex, color, ethnicity, or national origin. In the four years following Proposition 209, many UC campuses experienced a drop in the rates of hiring women and underrepresented minority faculty members.

However, Proposition 209 contains language stating that the prohibitions do not apply to actions which are necessary to establish or maintain eligibility for any Federal program, where ineligibility would result in a loss of Federal funds to the University. As a Federal contractor, the University of California has an obligation to comply with affirmative action regulations governing all levels of employment, including academic personnel practices. The University also has an obligation to comply with State and Federal laws that prohibit discrimination on the basis of race, sex, color, national origin, and other protected categories. Therefore, an effective affirmative action program for faculty remains a legal requirement for the University of California.

Within the University, it is the responsibility of the Dean of the College to maintain an affirmative action program for faculty and staff recruitment and retention consistent with University affirmative actions policies. (APM-240) The University has a policies and procedures in place for any complaints involving discrimination or harassment handled by the Campus Climate and Compliance Office.

PROCEDURES AND CRITERIA FOR PROMOTION, ADVANCEMENT AND COMPENSATION

The University and College have specified policies and schedules for merit and promotional reviews as well as schedules for compensation. This is covered in depth in Section 3.7.7. – Policies, Procedures And Criteria For Faculty Appointment, Promotion, Tenure And Access To Development Opportunities.

EVIDENCE OF EQUITY AND DIVERSITY ACHIEVED

Our faculty is the most evenly gender-balanced in the nation. Eleven of our ladder-rank faculty are women (Gail Brager, Dana Buntrock, Raveevam Choksombatchai, Renee Chow, Mary Comerio, Margaret Crawford, Galen Cranz, Maria Paz Gutierrez, Lisa Iwamoto, Jill Stoner, and Susan Ubbelohde). Four of the last six successful tenure decisions have involved women; two of our last five hires have been women, the most senior of whom is Margaret Crawford. Our college, all three departments, the College library and its archives are all headed by women. Our department’s 2006-2009 Chair was a woman, as is the interim
Department Chair for 2009-2010, who is also currently the Associate Director of the Center for Environmental Design Research. For a decade, a total of three women have held the position of Chair of Graduate Advisors of our Master of Architecture Program.

In terms of race and ethnic diversity, our faculty body includes two Asian-Americans and one Asian (all women), three who are classified as Latinos or Hispanics, and a number of faculty who were born and educated abroad (from Chile, Thailand, France, Egypt, and Israel). The three Latino/Hispanic faculty members and three Asian faculty members each separately represent about 11 percent of the faculty, which is less than 30 people total. Foreign-born faculty make up greater than one sixth of our faculty.

These statistics are even more striking when taking in consideration State policies on gender and racial issues. In November 1996, Proposition 209 passed at the polls, and Section 31 was added to Article I of the California Constitution, with text reading: “The state shall not discriminate against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting.”

The result is that, simply put, we are legally unable to consider issues such as race or gender either positively or negatively in hiring or admissions decisions.

We can nonetheless point to notable success in recruiting and retaining women and underrepresented minorities as members of the faculty. In recent faculty searches, the Department has actively recruited and selected women and underrepresented minorities (defined by the campus as African Americans, Hispanics, and Native Americans) without implementing any preferences. Our most recent hires include Assistant Professors of design, Maria Paz Gutierrez (2007) and Ronald Rael (2008); from a search in 2007-2008, the Department and University successfully recruited two senior architectural historians who began in Fall 2009, Greg Castillo (Associate Professor) and Margaret Crawford (Professor). These four new hires, together, add two members of an under-represented minority (Latino/Hispanic) and two women to the faculty.

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<tbody>
<tr>
<td>AFRICAN-AMERICAN/BLACK</td>
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<td>0 / 0%</td>
<td>0 / 0%</td>
</tr>
<tr>
<td>AM INDIAN/ALASKA NATIVE</td>
<td>0 / 0%</td>
<td>0 / 0%</td>
<td>0 / 0%</td>
<td>0 / 0%</td>
<td>0 / 0%</td>
<td>0 / 0%</td>
</tr>
<tr>
<td>HISPANIC</td>
<td>1 / 3.4%</td>
<td>1 / 3.8%</td>
<td>2 / 7.7%</td>
<td>3 / 12%</td>
<td>2 / 8%</td>
<td>3 / 11.1%</td>
</tr>
<tr>
<td>ASIAN-AMERICAN</td>
<td>3 / 10.3%</td>
<td>3 / 11.5%</td>
<td>3 / 11.5%</td>
<td>3 / 12%</td>
<td>3 / 12%</td>
<td>3 / 11.1%</td>
</tr>
<tr>
<td>FEMALE</td>
<td>10 / 34.5%</td>
<td>10 / 38.5%</td>
<td>11 / 42.3%</td>
<td>10 / 40%</td>
<td>10 / 40%</td>
<td>11 / 40.7%</td>
</tr>
<tr>
<td>TOTAL % OF FACULTY</td>
<td>24 / 100%</td>
<td>26 / 100%</td>
<td>26 / 100%</td>
<td>25 / 100%</td>
<td>25 / 100%</td>
<td>27 / 100%</td>
</tr>
</tbody>
</table>
Today, social equity should be considered not only in terms of our openness as an institution to including amongst our faculty those who are qualified without regard for race, ethnicity, national origin, gender, sexual orientation or disabilities. It is also reflected in our support for faculty at crucial moments in their lives. The UC system is generous in such support, offering parental leave or modified duties upon the birth or adoption of a child, tenure clock stoppage for childbearing and other reasons, leave for care of family members and part-time appointments for family responsibilities. Faculty who have availed themselves of this support since the last NAAB review include Maria Paz Gutierrez (Spring 2008), Andrew Shanken (Spring 2009), Nicholas de Monchaux (Spring 2008), Lisa Iwamoto (Fall 2008), and Ronald Rael (Spring 2010). Our faculty reports that this program is one which is valued and appreciated. Further information on this support can be found at:

http://facultyguide.berkeley.edu/resources/faq_7.html

CRITERIA AND PROCEDURES USED TO ACHIEVE EQUITY AND DIVERSITY IN STUDENTS

Within the Graduate Division of the University which supports and assists graduate students, the Graduate Diversity Program provides resources for educationally and financially disadvantaged students and underrepresented students throughout their academic careers at the University. The program helps with admissions, providing information and strategic planning on the application process; provides academic support including tutoring, professional development and post-graduate planning; provides mentoring on an on-going basis; and aids in outreach.

Within the Department, our Graduate Office works with Graduate Division to administer the procedures of the University. In recruitment, we use University best practices and host a Diversity Recruiting Day each Fall with the other two departments of the College. We also anticipate that the new post-baccalaureate [IN]Architecture will introduce our program to students of diverse background. In section 3.4 on Social Equity, we describe the particular conditions of admissions in our University system that prohibits us from discriminating against or granting preferential treatment to any individual of group on the basis of race, sex, color, ethnicity, or national origin.

In our admissions process, we use a comprehensive approach to evaluate each applicant’s potential. Our experience suggests that more comprehensive approaches to reviewing graduate applications bolster sound admissions standards and help Berkeley to recruit and retain a more diverse and predictably successful graduate student body, in turn sustaining our national and international reputation for academic excellence and diversity. Rather than rely on any single metric, we require essays outlining educational goals and past experiences, along with a portfolio of work, transcripts and tests. We scrutinize these statements, looking for individuals with a clear sense of purpose and an awareness of what can be accomplished in an institution as diverse as ours.
Each student is assigned a faculty advisor (Graduate Advisor) upon arrival at Berkeley. The advisor provides guidance for entering and continuing students concerning the various steps necessary to complete in order to earn their M.Arch. In addition, once enrolled, minority students may report any problems or special needs to the Graduate Affirmative Action Advisor. There have been no complaints along these lines during the period of review. It is worth noting that in the Academic Personnel Manual, faculty review and appraisal specifically recognize contributions to promoting diversity.

The University of California is committed to excellence and equity in every facet of its mission. Teaching, research, professional and public service contributions that promote diversity and equal opportunity are to be encouraged and given recognition in the evaluation of the candidate’s qualifications. These contributions to diversity and equal opportunity can take a variety of forms including efforts to advance equitable access to education, public service that addresses the needs of California’s diverse population, or research in a scholar’s area of expertise that highlights inequalities. (APM-210)

**EVIDENCE OF EQUITY AND DIVERSITY ACHIEVED**

The Department does well in regard to income and gender diversity among graduate students; we have more first-generation college students than our cohort institutions. Racial and gender statistics are tracked. The following statistics are for the graduate student population only:

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</thead>
<tbody>
<tr>
<td># AFRICAN-AMERICAN/BLACK</td>
<td>3 / 2.9%</td>
<td>2 / 2.3%</td>
<td>3 / 3.6%</td>
<td>0 / 0%</td>
<td>3 / 3.2%</td>
<td>1 / 1.0%</td>
</tr>
<tr>
<td># AM INDIAN/ALASKA NATIVE</td>
<td>2 / 1.9%</td>
<td>0 / 0%</td>
<td>1 / 1.2%</td>
<td>0 / 0%</td>
<td>0 / 0%</td>
<td>0 / 0%</td>
</tr>
<tr>
<td># HISPANIC</td>
<td>8 / 7.8%</td>
<td>6 / 7.0%</td>
<td>6 / 7.1%</td>
<td>5 / 5.4%</td>
<td>5 / 5.4%</td>
<td>6 / 6.3%</td>
</tr>
<tr>
<td># ASIAN-AMERICAN</td>
<td>10 / 9.7%</td>
<td>11 / 12.8%</td>
<td>10 / 11.9%</td>
<td>7 / 7.5%</td>
<td>10 / 9.8%</td>
<td>11 / 11.6%</td>
</tr>
<tr>
<td># INTERNATIONAL*</td>
<td>15 / 14.6%</td>
<td>12 / 14.0%</td>
<td>18 / 21.4%</td>
<td>29 / 31.2%</td>
<td>30 / 32.3%</td>
<td>23 / 24.2%</td>
</tr>
<tr>
<td>#/% FEMALE</td>
<td>45 / 43.7%</td>
<td>40 / 46.5%</td>
<td>37 / 44.0%</td>
<td>44 / 47.3%</td>
<td>53 / 57.0%</td>
<td>53 / 55.8%</td>
</tr>
<tr>
<td>TOTAL # OF STUDENTS</td>
<td>103 / 100%</td>
<td>86 / 100%</td>
<td>84 / 100%</td>
<td>93 / 100%</td>
<td>93 / 100%</td>
<td>95 / 100%</td>
</tr>
</tbody>
</table>

In terms of gender, the student population has hovered around an even division of men and women for many years, even while the percentage of women working in the profession of architecture is far smaller than men.

We continue to search for new ways to mentor and retain underrepresented students. The problem is systemic, not confined to Berkeley; we have better diversity rates than many of our peer institutions. But there is a complex relationship between the structure and perception of the profession itself and the nature of secondary school and undergraduate education at a national level; thus as an institution and a department, we recognize that we must make a more focused effort in this regard.
OTHER EFFORTS

We also demonstrate our support for gender diversity through the Arcus Endowment. As clearly outlined on the College’s web site, “Through annual lectures and a scholar-in-residence program, the endowment seeks to foster an awareness of the role of Lesbian / Gay / Bisexual / Transgender / Queer (LGBTQ) communities in the history of architecture, landscape architecture, urban planning, and the built environment disciplines. Its goals include efforts to combat homophobia, affirm the contribution of LGBTQ communities in education and professional practice, and place LGBTQ issues in a global context through comparative studies and international collaborations. The endowment also recognizes and supports the activities of LGBTQ students in the built environment professions.”

C. Greig Crysler is Program Director Fall 2009 and Greg Castillo in Spring 2010; Continuing Lecturer Roddy Creedon is on the Advisory Board.

In addition to looking at our department statistically, our concerns for diversity are evidenced in our acts. Both the campus and the Department require all Graduate Student Instructors to undergo pedagogical training addressing a number of classroom challenges, such as disabilities of all kinds and inequities linked to race, gender, national or economic origins. The seminar, Arch 300, Seminar in the Teaching of Architecture is offered by our department each Spring; other College departments teach it in the Fall. GSIs are also required to take an on-line course on ethics in the first two weeks of teaching. While not every graduate student will become a Graduate Student Instructor, sufficient numbers do that the values established in these settings have a broader influence in our community. Many of the concerns our GSIs encounter in the classroom prepare them for ethical professional practice in an economically and ethnically diverse world as they teach students who are from economically challenged communities and a variety of cultural backgrounds. This contributes to a diverse and open community in both the graduate and undergraduate programs.

Lastly, it is worth noting that our M.Arch program sits within the larger department of undergraduate and advance degree programs. Taken in total, our department’s intellectual diversity is matched with impressive gender and ethnic diversity; ours is an economically and gender-diverse architecture program. The diversity of the undergraduate population also informs the experience of our graduate students, who are both their teachers and their classmates. The UC Berkeley Office of Planning and Analysis offers data collected from various sources, summarized on the “Cal Profiles” website and in their December 2008 report provided to the Department of Architecture. From 1997 to 2008, we have seen an increase in the participation in our department of underrepresented minority groups (African American, Hispanic, Native American) from 11 percent to 21 percent. This is much better than what we have seen over the same period for the Berkeley campus overall, which was a decrease from 20 percent to the 15 percent indicated in the chart above, and also better than the peer average data of 16 percent (collected in 2006). The data also shows that the
diversity of our undergraduates compares favorably to those in the University overall, and to our peer institutions. Female participation in the Architecture major now accounts for more than half (57 percent) of all undergraduates, just slightly above the trend across the Berkeley campus (54 percent), and also higher than the peer average of 45 percent (enrollment data for Columbia, Harvard and UCLA combined, 2006).

We also have the highest percentage of Pell Grant recipients (students who come from low-income families), of any college on our campus, at a university known for an unusually high percentage of students using Pell Grants to finance their educations. UC Berkeley educates more federal Pell Grant recipients than all eight Ivy League universities combined.

**CRITERIA AND PROCEDURES TO ACHIEVE EQUITY AND DIVERSITY IN STAFF**

Like students and faculty, the University has explicit procedures and policies for staff. The mission of the Staff Equal Employment Opportunity (EEO) Compliance is to assist campus managers in achieving affirmative action goals; inform members of the campus community of policies and responsibilities; educate on managing effectively in a diverse environment; monitor affirmative action and diversity; and to work with our program to address affirmative action and equal employment opportunity issues. Currently, we have 15.93 FTE career staff, with a total of 18 people (although two positions are currently vacant.) Of these, 9 (50%) are women, 2 (11%) are hispanic/latino, 2 (11%) are black/African-American and 6 (33.3%) are Asian-American.

**ACCESS TO THE FORMULATION OF POLICIES AND PROCEDURES**

University policies are easily accessible on the University website. The home page has tabs organized for Students; Prospective Students; Faculty; Staff; Cal Parents; and Alumni. From these links, all criteria and procedures can be found. (See also 3.1.1 Architectural Education and the Academic Context on governance.)
3.5 STUDIO CULTURE

This policy has been written by a team of faculty and students to reflect our concern for a studio culture that supports creativity and invention, respect and collaboration, health and safety, an ecology of materials, and optimism about the role of design in the larger cultural framework. The faculty are members of the Master of Architecture Committee. The student authors are members of the Master of Architecture Committee, elected by their peers to represent their voices on this and other activities of the committee. The statement reflects ongoing values embraced by the Department; it was revised and approved by the faculty and students of the M.Arch Committee on October 26, 2009, with input from students. The policy is posted in the studios and is incorporated in the Master of Architecture Handbook. We assess its implementation and effectiveness through ongoing processes that include reports by our Student Representatives to the Chair of Graduate Advisors and through individual advisors. As such, it is considered a living document which will regularly reflect the studio culture embraced by the students.

In addition to this Studio Culture statement below, all students sign a Wurster Pledge at the beginning of every year. It begins with the premise that we strive to maintain a creative and professional work environment, based on the idea that students are individuals that respect each other, their work space and the facilities. This pledge addresses studio etiquette, mutual respect for each other and physical facilities, and security and safety issues. After these issues are discussed in a group meeting, all students sign this pledge, confirming their understanding of the rules and guidelines and their commitment to honor their word and spirit.

HEALTH AND SAFETY

The intensity, energy and exhilaration of the design studio are the reasons why we’re here. Yet creativity demands balance. Efficiency, responsibility and health are equally essential components of effective studio work, and are valued by our design culture. You are not effective in your own work or in collaboration with others if you regularly work beyond your reasonable limits. Students are expected to have a spirit of collective responsibility, and to voice any concerns that might affect the health and safety of their peers.
ECOLOGY OF MATERIALS
The College and the Department ask that studio culture embrace a holistic approach to studio ecology. We ask for restraint in using materials that are unsustainable, the recycling of (ideally all) materials for the future reuse by others, and an exchange of information within the studio about material issues. Students are actively engaged in helping to set up reuse stations, and create a culture where they are used and valued as a resource.

RESPECT AND COLLABORATION
In studio culture, we believe collaboration trumps competition. Students and faculty maintain an atmosphere of mutual respect for and interest in each other’s ideas. Our work will always benefit from conversations with colleagues about shared themes, precedents and resources. Even in a portable, digital age, it is an essential requirement that design happens in the studio. Working in studio moves beyond logistics, nurturing studio culture and fostering the collaborative atmosphere that we most value. At the same time, care for our working environment is an essential part of our design ethic.

OPTIMISM AND INVENTION
None of the above should serve to dampen the creative spirit and faith in the design enterprise as essential components of architecture, and its ability to serve our larger cultural agenda.
3.6 HUMAN RESOURCES

3.6.1 M.ARCH STUDENTS’ EDUCATIONAL BACKGROUND, DEGREE PROGRAM SELECTIVITY, RETENTION, TIME-TO-GRADUATE SINCE 2003
NAAB VISIT

The Master of Architecture degree is awarded to students who successfully complete a one-, two- or three-year program of studies. The length of the required residence period, the number of required semester units, and the specific list of required courses varies, depending upon undergraduate major and previous graduate study, if any. In summary, Option 3 students have the most diverse educational background, with BA and BS degrees in non-architectural fields as well as architectural fields. Option 2 students all have four year, non-professional degrees in architecture, and in Option 1, the non-accredited program, students have a B.Arch. The University does not allow the granting of duplicate degrees, so there are no students with a prior M.Arch degree in our program.

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<thead>
<tr>
<th>Undergraduate Degree Program</th>
<th>Required Units</th>
<th>Maximum Elective Units</th>
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<tbody>
<tr>
<td>BA or BS degree in any non-architecture field</td>
<td>Option 3 (three-year)</td>
<td>72</td>
</tr>
<tr>
<td>Four-year non-professional architecture degree (BA, BS, or BED degree in Architecture)</td>
<td>Option 2 (two-year)</td>
<td>48</td>
</tr>
<tr>
<td>Bachelor of Architecture (five-year professional) degree</td>
<td>Option 1 (one-year)</td>
<td>24</td>
</tr>
</tbody>
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3.6.1.2 ADMISSIONS AND ACCEPTANCE RATE

Our admissions procedure includes submission of the following:

- Statement of Purpose essay
- Biographical essay
- Three letters of reference
- Portfolio of creative work
- Transcripts
- GRE or TOEFL scores

Admission requirements differ slightly for each of the Options.
OPTION 3

The admissions committee looks for evidence that these candidates have an aptitude for architecture and that Berkeley’s program would be a good place for them to develop that aptitude. The ability to conceptualize, think three-dimensionally, and communicate effectively both verbally and visually, plus some understanding of the architecture profession, is essential. Since Option 3 students’ academic preparation is assumed to be in another field, it is important that applicants to the Option 3 program incorporate into their statement and explanation of why they intend to seek to combine architecture with or move from their present field to architecture. They must also, understandably, demonstrate their ability to make appropriate choices within our diverse culture.

Students admitted to the Option 3 program are required to have an undergraduate degree in any field and have specific courses that are required before applying. (They must have taken one semester of college-level calculus and one semester of a college-level physics course which included the principles of mechanics. We accept a physics course taken without a lab, and accept a calculus or physics course from any accredited community college or university. Online courses are not accepted.) These coursework prerequisites must be completed by the time applicants enter, not apply to, the graduate program; at the very latest, candidates must take the courses in the summer preceding fall semester entry. Students must pass required courses with a grade of at least a C minus. Students who have majors in architecture but have not completed at least three studios are also reviewed for the Option 3 program (see below.)

OPTION 2

For placement in the Option 2 program, holders of non-professional undergraduate architecture degrees must have completed a minimum of three one-semester upper-division courses in architectural design problems (studios). Typical applicants often have one to three years of work experience. In general, the admissions committee looks for a combination of creative and technical skills; this includes the ability to communicate design ideas and concepts and the ability to represent conceptual ideas in built form. However, a four-year undergraduate degree in architecture does not automatically guarantee worthy candidates admission to our Option 2 program. Applicants whose portfolios do not demonstrate adequate understanding of architectural design and building assembly, but nonetheless appear to be a good fit for our program may be referred to the three-year (Option 3) M.Arch program. This occurs no more than a handful of times in any given year, and is usually made in cases where an applicant has at least some faculty who believe strongly that they show a capacity for success in our program.
OPTION 1 (NOT ACCREDITED BY NAAB)

Although the primary prerequisite for admission to the Option 1 program is a Bachelor of Architecture degree (with a B grade-point average), we very much prefer students who have had some professional work experience. The Option 1 program is intensive and admission decisions are influenced by an applicant’s ability to clearly articulate a focused topic or area of study. For example, office experience with a particular building type may lead to a desire to research design or technical alternatives. Alternatively, a student may want to return to school to pursue a topic of interest that grew from their undergraduate experience. It is important that applicants discuss their thesis topic convincingly in the statement of purpose in the application. In general, the admissions committee looks for evidence that the student has a plan for how they will spend their year at Berkeley. We appreciate the influence these students have on others in the M.Arch program, but have no necessary target population for Option 1 students, and their population varies based on the available applicant pool and yield.

The core of the M.Arch curriculum is the design studio, and students admitted to the program plunge right into the studio regimen their first semester. The ability to draw and sketch is thus essential and is evaluated based on portfolios submitted with applications. Although no prerequisite coursework in this area is required, applicants are strongly encouraged to take studio art and/or a beginning design course in preparation for applying.

SELECTIVITY AND ACCEPTANCE RATE

APPLICANTS TO EACH PROGRAM / ACCEPTANCES / YIELD

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<tbody>
<tr>
<td>M. Arch, Opt. 2</td>
<td>217/24/10</td>
<td>185/43/13</td>
<td>237/46/22</td>
<td>247/48/19</td>
<td>280/49/19</td>
<td>322/42/21</td>
</tr>
<tr>
<td>M. Arch, Opt. 1 (not accredited)</td>
<td>77/6/3</td>
<td>93/16/1</td>
<td>100/18/5</td>
<td>109/20/6</td>
<td>110/12/8</td>
<td>193/5/3</td>
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An article on campus demographics notes that the campus as a whole in 2009 only accepted 21.9 percent of applicants. Our acceptance rate in the Option 3 program is consistently around fifteen percent; the acceptance rate in the Option 2 has ranged from a low of eleven percent to a high of 23 percent in the period under review.

Our yield rate is of greater concern. In a review of applicants to the M.Arch program since 1992, the yield rate for our M.Arch programs has fluctuated widely, between 20 percent and 50 percent in our Option 3 and Option 2 (three- and two-year) programs. Although the number of Master’s students has declined somewhat (from 76 percent of the total graduate student population to 69 percent), this may have been a
temporary anomaly; figures for 2009 are back to previous levels. While we can speculate about the various reasons for this previous decline, they would simply be conjecture at this point. What is clear is that we need to 1) continue to track acceptance rates, 2) improve our web-based communication and promotional efforts, 3) find additional means for effective outreach, and 4) regularly administer satisfaction surveys to current students to evaluate the effectiveness of our programs.

**COMPLETION RATES**

The Master of Architecture program at Berkeley has a high rate of completion, over 90 percent, based on data provided to us by the University. Time to completion is harder to assess, since the data from the University does not distinguish between students in our various options. It does appear, however, that there has been a slight but steady rise in the number of years to completion, and this is something we need to look at further to assess the causes and determine what, if any solutions are called for. If this trend suggests that students are taking longer to complete required courses, it may suggest, for example, that we need a still stronger advising system. If students are opting to stay well beyond the time those requirements are met, perhaps to take advantage of repeated GSR and GSI positions, then we need to more strongly enforce GSR/GSI policies that are already on the books to prevent this. If students are completing their courses but taking more time to finish their thesis, then efforts need to concentrate on the role of the M.Arch thesis committees in being more proactive in supervising student progress.

### M.Arch Degrees Awarded, Each Year 2004-2009

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</thead>
<tbody>
<tr>
<td>M. Arch degrees awarded</td>
<td>42</td>
<td>37</td>
<td>34</td>
<td>37</td>
<td>32</td>
<td>N/A</td>
</tr>
</tbody>
</table>

As another measure of completion or retention, we also keep track of the number of students that withdraw each year and from which Option. The reasons students cite for withdrawing include personal conflicts, financial difficulty and unanticipated conflicts with the demands of the program.

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<tbody>
<tr>
<td>Withdrawn from Option 3</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>Withdrawn from Option 2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total Withdrawn</strong></td>
<td>3 / 2.9%</td>
<td>3 / 3.5%</td>
<td>1 / 1.2%</td>
<td>2 / 2.2%</td>
<td>4 / 4.3%</td>
<td>N/A</td>
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3.6.2 FACULTY: BALANCE BETWEEN TEACHING AND OTHER RESPONSIBILITIES

FACULTY TEACHING AND SERVICE LOADS

In 2008-2009, the Department offered 47 Fall courses and 44 Spring courses, a total of 91 at all levels. Depending on student population demands, a number of courses require multiple instructors, resulting in a total of 108 teaching assignments per year. Regular Architecture faculty (ladder track and continuing lecturers) collectively covered a total of 73 teaching assignments in 2008-2009; non-regular faculty (hired for a single semester) covered the remaining 35 teaching assignments.

A typical teaching load in our Department is four classes per year. No teaching credit is given for supervising independent study, M.Arch thesis advising, MS/PhD advising. Some faculty who teach large classes with an intensive lecturing load, or lead multiple-section undergraduate studios, or teach three studios a year (rather than 2 studios and 2 seminars) are sometimes granted a reduced teaching load of three classes over two semesters. New faculty (and particularly Assistant Professors) are given various concessions at the Chair’s discretion, typically reduced loads if they take on a new or large class, and one course off the first year they are here or, on some occasions, the year before coming up for tenure, in order to allow them ample time build their case. Some Department faculty are given a reduced teaching load to accommodate administrative demands, such as those serving in the roles of Department Chair, Chair of Graduate Student Advisers, Associate Dean of Undergraduates, or if a faculty is Chair or Director of a research unit either within of outside of the college, or they are taking on an unusually heavy service load on an ad hoc basic.

Those universities we might consider our recruiting competitors more conventionally have greater staff support to cover advising and expect somewhat lighter teaching loads, especially where studios are concerned: Yale and MIT require one studio or two seminars each semester, University of Virginia requires two studios and one seminar annually, two larger lectures and one seminar, or four seminars.

Faculty are expected to take on a minimum of two departmental committee appointments, and some serve on additional Ad Hoc committees, or college- or university-level committees. As with all departments, service loads are uneven and there are always a handful of “good citizens” who take on more than their fair share. All faculty review graduate applications in the Spring (January and February), an extremely time-consuming process.
MENTORING COLLEAGUES

Even though, as we note later in this document, we have been successful at shepherding faculty through the tenure process, there is a critical need for improved mentoring for our Junior Faculty. When a faculty body changes and shrinks as quickly as ours has in recent years, mentoring becomes difficult. Disciplinary diversity and small size means that any given faculty member with a specific disciplinary grounding might take a different route through the process of merit review, making direct disciplinary mentoring difficult. While mentoring inevitably takes place informally, and in some cases it may be quite effective, it is done ad hoc, and thus cannot be easily measured or evaluated. Many junior faculty would clearly welcome a more formal system that could include mentors both within and outside of the Department and older faculty feel that a more structured mentoring program for new junior faculty should be a priority. While the Department does not currently have a formal system of mentoring, but this is a goal of the current Interim Chair for the Spring semester, and there will likely be policies in place by the time of the NAAB Visit.

RECRUITMENT AND RETENTION

As part of preparation for our November Academic Program Review, the University Office of Planning Assistance collected data and reported that in the last ten years faculty numbers have remained stable in the Department of Landscape Architecture and the Department of City and Regional Planning, the two other departments of our college, while budgeted FTE faculty in Architecture declined significantly between 1997-98 and 2007-08, falling from 35.35 to 27.25 in 2009-2010 (in addition to which, teaching release drops our effective teaching FTE in the permanent faculty to 25.75 this year, distributed across several programs). In those ten years the Department of Architecture saw eight new hires (all at the Assistant Professor rank) and 17 separations (five Assistant Professors, twelve Full Professors). Of the five Assistant Professors who left the Department in the period under review, all found other positions in teaching, practice or related fields. The eight new Assistant Professors hired include: Anderson, Buntrock, Burke, Crysler, de Monchaux, Gutierrez, Iwamoto, and Shanken; all but Burke remain. As noted below, by 2009 the Department has three additional hires subsequent to the data used by the University Office of Planning Assistance: Ronald Rael (starting 2008), Margaret Crawford and Greg Castillo (both starting in Fall 2009).

In addition, in spite of the campus hiring freeze, we have been allowed to continue a search for a new Chair, to become a senior member of the faculty. Candidates were interviewed for this position in Fall 2009 with the expectation that a successful choice will join the faculty in July 2010.

Recently-hired junior faculty report that the University provides good start-up funds and a very useful series of workshops on graduate student and teaching-assistant mentoring, tenure procedures, and teaching practices.
By the time of the NAAB team visit, all will have taken advantage of generous policies for young families with new babies, a point further discussed in Section 3.4.1 Social Equity Regarding Faculty And Staff.

In the last ten years outlined by the Office of Planning Assistance, faculty promotions have been uniformly successful. Seven faculty were promoted from Assistant to Associate Professor: Anderson, Buntrock, Choksombatchai, Chow, Crysler, Davids, and Iwamoto. Another Assistant Professor is currently being considered for tenure this year. All are still serving on the faculty and are considered to be moving satisfactorily toward their next promotion, although perhaps at a slightly slower pace than statistical norms. Ten faculty were promoted from Associate to Full Professor: AlSayyad, Benton, Bosselmann, Bourdier, Brager, Cranz, Davids, Dubovsky, Groth, James-Chakraborty, and Ubbelohde. Another Associate Professor is currently being considered for promotion this year. However, many faculty stay in the Associate Professor rank for a longer time than is the norm on many campuses and perhaps improved mentoring at even this middle rank could reduce time to promotion.

Of the eleven Full Professors who left the Department in the same period, nine left due to retirement, in some cases with incentives for early separation: Arens, Davis, Lydon, Tobriner, Treib, Cooper Marcus, Solomon, and Saitowitz. The other three Full Professors left for family reasons and/or higher-paying or more prestigious positions at other institutions: Kathleen James-Chakraborty is now Chair of the School of Art History and Cultural Policy at University College Dublin in Ireland; Dell Upton moved to a funded chair in anthropology with a joint position in architectural history at the University of Virginia; Adele Santos left to become Dean of the School of Architecture and Planning at MIT.

The University Office of Planning Assistance also noted in its materials related to the Academic Program Review that the salaries of Berkeley’s Architecture faculty at the rank of Associate and Professor are significantly below those of peer architecture departments at public as well as private universities.
3.6.3 FACULTY-STUDENT RATIOS FOR STUDIOS AT ALL DESIGN LEVELS

MAINTAINING LOW STUDENT: FACULTY RATIOS AT THE GRADUATE LEVEL

As funding has dropped, average undergraduate class sizes have gone up in our department (with an exception in 2008-09). However, the graduate program has generally been protected. In 2002-2003, graduate classes averaged 10.03 students per class; in 2008-2009, 10.93. (The comparable numbers for undergrads were 36.36 / 39.76.)

While only 76.1 percent of our graduate classes were taught by permanent faculty in 2008-2009, down from 90.20 percent in 2002-2003, this is evidence not only of conflicting demands on the permanent faculty, but in a positive way also reflects opportunities engaged. We have been fortunate to have generous endowments that allow us to bring respected professionals to the campus. The use of educators who are not permanent faculty is therefore often a benefit rather than a problem, especially when they come from offices such as Renzo Piano’s. In addition, we rely on practicing architects from award-winning firms in both San Francisco and Los Angeles, hired as adjuncts and lecturers to staff our studios. These professionals have a significant and positive impact on our effectiveness.

CLASS SIZES

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<tbody>
<tr>
<td>UPPER DIVISION UNDERGRADUATE AVERAGE CLASS SIZE</td>
<td>36.05</td>
<td>39.08</td>
<td>38.96</td>
<td>41.96</td>
<td>41.36</td>
<td>39.76</td>
</tr>
<tr>
<td>GRADUATE AVERAGE CLASS SIZE</td>
<td>12.74</td>
<td>11.85</td>
<td>10</td>
<td>13.34</td>
<td>13.02</td>
<td>10.93</td>
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PROPORTION OF CLASSES TAUGHT BY PERMANENT FACULTY*

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<tbody>
<tr>
<td>% UPPER DIV CLASSES TAUGHT BY PERMANENT FACULTY</td>
<td>51.69%</td>
<td>55.28%</td>
<td>56.91%</td>
<td>55.36%</td>
<td>40.52%</td>
<td>51.69%</td>
</tr>
<tr>
<td>% UNDERGRAD CLASSES TAUGHT BY PERMANENT FACULTY</td>
<td>53.38%</td>
<td>57.97%</td>
<td>57.94%</td>
<td>56.23%</td>
<td>41.40%</td>
<td>47.67%</td>
</tr>
<tr>
<td>% GRADUATE CLASSES TAUGHT BY PERMANENT FACULTY</td>
<td>89.30%</td>
<td>83.53%</td>
<td>82.38%</td>
<td>87.95%</td>
<td>83.35%</td>
<td>76.10%</td>
</tr>
</tbody>
</table>
### DESIGN STUDIO STUDENTS PER FACULTY, UNDERGRADUATE (F / Sp)*

Where numbers are written as ~15, they reflect target enrollments, not actual numbers; actual numbers are not available for this period.

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<tbody>
<tr>
<td>UPPER DIV’N STUDIO AVERAGE, 100A</td>
<td>14.8 / 15.4</td>
<td>~15 / 14.6</td>
<td>~15 / 14.6</td>
<td>14.4 / 14</td>
<td>13.6 / 14.8</td>
<td>13.4 / 15</td>
</tr>
<tr>
<td>UPPER DIV’N STUDIO AVERAGE, 100B</td>
<td>14.4 / 15.4</td>
<td>~15 / 15</td>
<td>~15 / 15</td>
<td>14 / 14.2</td>
<td>13 / 13.8</td>
<td>14 / 14.2</td>
</tr>
<tr>
<td>UPPER DIV’N STUDIO AVERAGE, 101</td>
<td>13 / 13</td>
<td>17 / 11.5</td>
<td>11.5 / 10.5</td>
<td>no data</td>
<td>9.5 / 14</td>
<td>5.5 / 13</td>
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* Note: The Undergraduate program is NOT an accredited program.

### DESIGN STUDIO FACULTY-STUDENT RATIOS / GRADUATE

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<tbody>
<tr>
<td>STUDIO AVERAGE, 200A/B*</td>
<td>1:13</td>
<td>1:11</td>
<td>1:13</td>
<td>1:7</td>
<td>1:8</td>
<td>1:8.6*</td>
</tr>
<tr>
<td>STUDIO AVERAGE, 201</td>
<td>1:13</td>
<td>1:12</td>
<td>1:12</td>
<td>1:12</td>
<td>1:13</td>
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<td>THESIS STUDIO AVERAGE, 204</td>
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<td>1:11</td>
<td>1:11</td>
<td>1:9</td>
<td>1:11</td>
<td>1:12</td>
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</table>

* 200A includes students entering the M.S. and Ph.D. programs as well, three in Fall 2009. There are three studio faculty and two Graduate Student Instructors in Fall 2009 for 26 students total; only the faculty were used in this calculation.

### GRADUATE ASSIGNED MAJORS : PERMANENT FACULTY FTE

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<tr>
<td>Architecture</td>
<td>5.55</td>
<td>5.57</td>
<td>5.02</td>
<td>5.40</td>
<td>5.86</td>
<td>5.32</td>
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<tr>
<td>Art Practices</td>
<td>2.39</td>
<td>2.13</td>
<td>2.43</td>
<td>2.95</td>
<td>2.74</td>
<td>2.57</td>
</tr>
<tr>
<td>City &amp; Reg’l Planning</td>
<td>7.81</td>
<td>9.07</td>
<td>8.53</td>
<td>7.88</td>
<td>7.29</td>
<td>7.66</td>
</tr>
<tr>
<td>Civil &amp; Envir. Engineering</td>
<td>7.4</td>
<td>7.84</td>
<td>7.81</td>
<td>7.16</td>
<td>8.51</td>
<td>7.38</td>
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<tr>
<td>Environment’l Policy /Mgmt</td>
<td>8.88</td>
<td>8.69</td>
<td>9.12</td>
<td>9.87</td>
<td>9.96</td>
<td>10.00</td>
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<tr>
<td>Landscape Architecture</td>
<td>6.84</td>
<td>6.24</td>
<td>6.72</td>
<td>6.41</td>
<td>6.60</td>
<td>7.06</td>
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</table>

* Cal Profiles data.
3.6.4 RELEVANT ADMINISTRATORS: DISTRIBUTION OF ADMINISTRATIVE AND OTHER RESPONSIBILITIES

It is important for the NAAB to recognize – and, we hope, appreciate the benefits of – the degree to which administration and governance at Berkeley is not hierarchical and is not highly structured, both out of tradition and recent necessity. We see this not as a deficit, but as an organizational model that offers clear benefits, one of two alternatives: markets vs. hierarchical systems. These models differ in their approaches to benefit and in their manner of resolving conflicts of interest.

This market-like structure is a response to both our current context and traditional inclination. But even in the best of times, the rich context offered by our community encourages an opportunistic response to external resources – a situation also seen in other institutions that have limited internal resources complemented by a sufficiently rich and robust local market (CCNY and Parsons in New York; Boston Architectural Center and Northeastern in Boston; Sci-Arc in Los Angeles; the University of Illinois, Chicago and Illinois Institute of Technology; and California College of the Arts here in the Bay area).38

While a structured approach has demonstrable value, its opposite is applied successfully in, for example, organizations such as those that yielded the Linux operating system or Firefox software, both described by economists today in reference to Ronald Coase’s organizational theories which identified these two alternative organizational models. We encourage NAAB to recognize the value of the market/peer production model’s presence as a component of our administration (and many similar institutions with tight internal resources, but rich regional resources to draw from), and, based on the stated commitment by NAAB to support institutional diversity, to look closely at both the benefits and the necessity of these alternate, but now accepted, organizational models in settings such as ours.

Our system is not purely based on individual agency; it is a hybrid of these two forms of governance, as are most educational institutions today. We rely on the market and its principles as we outsource and hire short-term adjuncts, as faculty take sabbaticals or leaves, and as we distribute service responsibilities related to governance. But at the same time we rely on a hierarchical structure, which offers checks and balances, in the linear organization of Deans and Chairs established by the University and in our interactions with the NAAB. The hybrid nature of this organization allows for significant assistance by others, rather than the Chair and Dean exerting influence in isolation. It is important to clearly state that our department as a whole operates in a much less hierarchical manner than many departments and schools reviewed by the NAAB – more like a market, with individual actors enabled by the system. Our strengths and weaknesses are best perceived in the benefits accrued to individuals in our setting, whether students or faculty.
According to the University of California’s Academic Personnel Manual (APM), the Department Chair is “leader and administrative head,” generally selected from Professor rank and with Academic Senate Membership. The Chair is appointed by the Chancellor upon recommendation of the College Dean and upon consultation with faculty. The Chair is responsible to the Chancellor through the Dean of the College. Although there have been exceptions, Department tradition has been to rotate the responsibility of Chair every three to four years among senior faculty members. Currently our Interim Chair is Gail Brager, who is serving for only one year while we are conducting a search for a new Chair, who, in an unprecedented step, will come from outside the current faculty.

In terms of human resource planning, the Chair assigns teaching loads, reviews sabbatical/leave requests and assigns committee service. Academic Personnel Manual 245, available on-line, lists the full content of the Chair’s duties, with six major responsibilities briefly summarized here in order of importance:

- plan and maintain the curriculum, teaching assignments and allocation of space
- select and evaluate faculty and staff in consultation with colleagues
- be available and respond to suggestions, questions and complaints from students, staff and faculty
- assign duties for the counseling of students and the training of student instructors
- prepare and manage the budget
- schedule and approve sabbaticals and leaves

One of the distinctive features of the University of California is the tradition of shared governance – that is, faculty share in the responsibility of guiding the operation and managing the University, while preserving the authority of the University’s governing board, the Regents, to ultimately set policy. In accordance with the principle of shared governance, in carrying out the above mentioned duties:

"The department Chair is expected to seek the advice of faculty colleagues in an organized way and to conduct the affairs of the department in an orderly fashion through department meetings and the appointment of appropriate faculty committees. The Chair is also expected to seek student advice on matters of concern to the students enrolled in the department’s programs. In larger departments, the Chair might be assisted in carrying out his or her responsibilities by a Vice Chair or another colleague, and, when desired, by an executive committee chosen in an appropriate manner; however, the responsibilities themselves may not be delegated."

Past Chairs of the Architecture Department have used various governance options, always assisted by a Management Service Officer (MSO, currently Chris Williams) and staff, but at times also assisted by a Vice Chair and/or an executive committee. The MSO assists the Chair in all human resource matters, including hiring of staff and matters related to staff welfare. In the past, a Vice Chair (currently Renee Chow) assisted in budget planning and monitoring and responded with the Chair to the annual budget call (productivity report and request for resources) that is due at the end of the calendar year. Vice Chairs have also dealt with space issues, such as oversight of computer laboratories and other support facilities. Consistently, however,
graduate student affairs have been directed by a Head of Graduate Advisors (currently Jill Stoner), who is a tenured Department faculty member appointed by the Dean of the Graduate Division and assigned oversight of the duties of graduate student admissions, advancement and counseling. The Head of Graduate Advisors is assisted by a Student Affairs Officer (SAO, currently Lois Koch) and additional staff.

To assist in administration, the Chair also appoints faculty members to the standing committees, such as Ph.D., M.Arch, Lecture Series, Prizes and Awards, Curriculum Committee, Graduate Students, Grievance, Lecturer Application Review, and various and separate committees to nominate fellows and visiting faculty. Furthermore, in consultation with faculty, the Chair nominates a faculty member to the College Executive Committee. These faculty areas of responsibility have been further elaborated on in Section 3.2.2 College / Department Assessment By Faculty.

The Chair spends significant time on personnel matters, since a significant number of the faculty are under review each year. The review process, which requires the evaluation of teaching records, creative work in practice and research, and evaluation of service rendered to the Department and the University, begins in the summer months and ends at the beginning of the following calendar year. Mid-career reviews for Assistant Professors, promotion to Associate Professor, Professor and incremental “step” increases to Professor VI require faculty committee reviews at the Department level. For these evaluations of colleagues, the Chair generally appoints two to three faculty members to departmental ad hoc committees, further discussed in Section 3.7.7 Policies, Procedures And Criteria For Faculty Appointment, Promotion, Tenure And Access To Development Opportunities. Non-tenured faculty (Assistant Professors and Continuing Lecturers) participate to a high degree in unit governance and in academic personnel decisions that relate to hiring new faculty (all ranks). However, promotion to Associate Professor with tenure and promotion to Professor rank are limited to the participation of all faculty at or above that rank.

The Chair is expected to continue to advance his/her own research or creative output while Chair, and has a reduced teaching load (typically 1-2 courses a year). While faculty are generally on nine-month contracts, the Chair is expected to continue administrative responsibilities during the summer months (but typically only gets one additional summer month of pay).

The Chair is assisted in the administration of the M.Arch program by the Chair of Graduate Advisers and (elsewhere on campus called the Head of Graduate Advisers). The Chair of Graduate Advisers and other graduate advisers are faculty members who are tenured and are responsible for the academic advising. Because students depend on faculty graduate advisers for general advice, and cannot act without the signature of the Chair of Graduate Adviser or faculty graduate adviser on a number of forms, it is essential
that graduate advisers be familiar with Graduate Division regulations. The Chair of Graduate Advisers and faculty graduate advisers are expected to exercise their own judgment in making recommendations. When a graduate adviser endorses a form for a student, the Graduate Deans assume that the Graduate Adviser has reviewed it carefully and approves the student’s request or proposed action as being in the best interest of the student and the program and feasible under existing regulations. The Chair of Graduate Advisers has more comprehensive responsibilities than does a faculty graduate adviser. The person in this role is the only one who can sign documents or make requests to the Graduate Division on matters concerning graduate enrollment, degrees, progress, and financial aid, such as admission, readmission, change or addition of major, graduate standing, and appointment of qualifying examination and dissertation committees. All faculty graduate advisers may sign petitions to add or drop courses.

3.6.5 STAFF: DISTRIBUTION OF ADMINISTRATION AND OTHER RESPONSIBILITIES

At the time this report was being written, there were 14.65 FTE staff after 1 October layoffs; two unfilled positions at the time of this writing yielded actual FTEs equal to 12.4 career staff in the Department, supported when possible by additional limited and casual staff. Before the NAAB Team visit, 2.5 FTE, focused in undergraduate advising, are scheduled to be transferred to the Dean’s office; the Visual Resources Center will also be transferred to the College. We are aware that the result of such limited staffing is that we are constantly in the position of catching up with pressing problems rather than proactive.

With our current budget crisis, staffing will shift between the time of this writing and the NAAB Team Visit and are shifting even as the document is being written in other ways, as well. Two full-time staff in general administration left our department voluntarily in late September and early October; both were highly competent at their tasks, making their loss deeply felt.
Staff groups are:

- **General Administration**
  
  4.0 FTE career staff assisted by one student @ 0.25 FTE
  
  Management Service Officer (MSO), Chris Williams (1 FTE)
  
  Financial Analyst, formerly Marsha Carlton (1 FTE, unfilled)
  
  Human Resources Specialist, May R. Hudson (1 FTE)
  
  Academic Personnel Specialist, Josephine O'Shaughnessy (1 FTE, unfilled)

- **Graduate Student Affairs**
  
  2.5 career staff FTE
  
  Graduate Office Manager and Student Affairs Officer, Lois Koch (1 FTE)
  
  Graduate Admissions Office, Sara McCarthy (1 FTE)
  
  Student Awards and Prizes Specialist, Donna Ko (0.5 FTE)

- **Scheduling**
  
  0.65 FTE
  
  Scheduler, Michael de Leon (0.75 FTE – voluntarily reduced to 0.65 under START program)

- **Audio/Visual and Exhibits**
  
  1.0 career staff FTE assisted by 1 student @ 0.25 FTE total
  
  (Student FTE are expected to rise in Spring 2010.)
  
  Audiovisual Equipment Manager, Joe Gouig (1 FTE)

- **Network and Computing**
  
  2.0 career staff FTE
  
  Lab and Customer Service Manager, Guy Vinson (1 FTE)
  
  Computer Customer Service Technician, Kevin Tong (1 FTE)
• CAD/CAM Lab
  Student Coordinator: 0.25 FTE; Student technicians: 3 people @ 0.75 FTE total

• Fabrication Shop
  Budgeted at 1.5 FTE (but only staffed at 1.0 currently)
  to supervise shop, training and manage equipment, supplies; six limited
  (0.4 FTE each) lab mechanics who help career staff supervise students working on equipment assisted by 6-8 student
  workers @ 1-1.5 FTE total.
  Acting Shop Superintendent, Paul Morrison (1 FTE)

• Visual Resource Center
  0.75 career staff FTE assisted by project-related student workers
  (N.B., Miller’s position is 1.00 FTE; the remaining .25 is paid by the Department of Landscape Architecture.)
  Director, Visual Resources Center, Jason Miller

• Undergraduate Student Affairs (N.B., this function is being transferred to the College)
  2.5 career staff FTE assisted by 1.0 FTE students
    Undergraduate Services Manager, Susan Hagstrom (1 FTE)
    Undergraduate Adviser, Avisha Chugani (1 FTE)
    Undergraduate Adviser, Lisa Thomas (0.5 FTE)

Staff contribute to and support departmental excellence in critical ways, including:

• The business staff annually hire 180 employees (visiting professors and lecturers, student instructors and graders,
  student lab workers, etc.), support between ten and twenty academic personnel cases for regular faculty and
  forty visiting professors and lecturers, and support each unit’s revenue and expenditures, including fee-collection,
  faculty startup and research grants.

• All Architecture service units (Shop, Visual Resources Center, CAD/CAM Lab) contribute to faculty teaching
  support and performance within the Department and often to the College’s other two academic departments.
  These facilities are further discussed in the latter part of Section 3.8.2 Description Of Physical Resources.

• The Department maintains a small office for audiovisual support and the management of exhibits and review
  space. With extremely modest means, the unit provides effective and flexible support; instructional technology
  has shifted dramatically in the last decade, with internet-based media and computer projectors replacing slides
  and carousel projectors and Joe Gouig, who heads this effort, has made an aggressive effort to remain current.
  The Audiovisual Support facility is a steady and seemingly tireless source of support for the instructional
  staff. The remarkably effective staff manager of this facility is aided by a small number of work-study student
  assistants, somehow available from the earliest hours until the end of the day.
3.6.6 IDENTIFICATION OF ANY SIGNIFICANT PROBLEM, WITH RECOMMENDATIONS FOR IMPROVEMENT

FACULTY- AND STAFF-TO-STUDENT RATIOS

- Currently, the Department has 582.25 undergraduates; 151 graduate students (M.Arch, M.S. and PhD); 12.4 FTE staff (16 individuals, 3 part-time, and two full-time staff positions unfilled); and 27.25 budgeted faculty FTE (29 people).

- There are 26.4 students for each faculty (and 26.9 students per FTE) and 59.13 students per FTE staff.

- Compared to other campus departments with similar complex teaching situations, Architecture has a considerably higher student-to-faculty and student-to-staff ratio. For example, in 2008-2009, before our three most recent faculty hires and staff layoffs, Architecture was reported by Cal Profiles with 23.75 active faculty FTE (including those on leave) / 25.75 budgeted FTE and 15.55 non-academic staff for 733.25 students (32.6 students per faculty, 47 students per staff), while Civil and Environmental Engineering had 41.74 active / 45 budgeted FTE faculty and 21.7 non-academic staff for 745.75 students (19 students per faculty, 34 per staff).

- We have a small faculty and staff and have repeatedly attempted to alert the University to the stress this places on our Department, in an effort to be allowed to beginning hiring replacements for our empty FTEs. These requests have met with poor results to date. The new Dean is planning a re-organization of some new key staff positions that we hope will improve technology and facility management in the near future, but layoffs are also needed to meet her budget cuts.

FACULTY FTE AND RELATED DECLINES

Faculty attrition has been an ongoing issue. In 1989, there were 46 faculty in the Department; by 2003, the time of the last NAAB comprehensive review, this had decreased to 32 full-time and 1 part-time faculty, a total of 32.25 FTE. These faculty were assisted by 7.23 FTE lecturers and 16.93 FTE Graduate Student Instructors (GSIs). These last Graduate Student Instructor positions translate into about 30-45 fractional hires every semester. In 2008-2009, the number of full-time faculty members was down to 27 individuals (23.75 active faculty – including those on leave / 25.75 budgeted FTE), including two part-time faculty. Two new hires starting in Fall 2009 has brought that number up to 29 people, supported by 6.29 FTE lecturers, and 13.05 FTE Graduate Student Instructors. More dramatically, clerical staff in our department were 12.94 FTE in the 2002-2003 year and are only 4.00 in 2009-2010, with two positions unfilled.
REBUILDING FACULTY TO, AT MINIMUM, MEET REDUCED TARGETS

The Department currently has sixteen faculty members serving at the rank of Professor, nine at Associate Professor, and four at Assistant Professor, a total of 29 individuals and a budgeted Faculty Teaching Equivalent of 27.25 FTE due to joint appointments. (Teaching release for administrative and other staff-related duties further reduces our effective FTE to 25.75.) Progress has already been made towards rebuilding faculty, and the above numbers include the two new faculty members having joined at the Assistant Professor level in 2008, and two architectural historians (one Associate and one Full) having joined July 2009. A new Assistant Professor position in Digital Design is scheduled to arrive in Fall 2010. A search for an outside senior faculty who will also serve as Department Chair is underway. With these recent hire, we will at least see our faculty numbers slightly closer to ideal. However, the currently reduced target levels are not being met, and will not be met even with these hires: Architecture’s state-funded target between 2004-2005 and 2007-2008 has been 33.5 faculty FTE, 6.25 above the current incumbent level.

NEW FACULTY TO REFLECT NEW DEMANDS ON THE PROFESSION

One challenge will be to hire additional faculty to replace those in critical areas who have left in recent years and retirements in our near future that can be easily anticipated. Positions are especially needed in the following areas: building science / sustainability (one faculty retired over 5 years ago and has not been replaced, and another is retiring in 2011; this position was already promised by the University, but on hold due to the faculty hiring freeze), structures, social-cultural processes, architecture theory and methods, housing typologies and affordability, and design studio instruction. An additional challenge will be to plan ahead by hiring instructors who, through teaching and research, can respond to changes that will affect architectural professionals in the future. In California today, the social, economic and environmental challenges include population growth, increased urbanization, higher energy costs, greater emphasis on resource conservation, greater need for sustainable residential densities, and demand for new building typologies with better integrated functions to avoid automobile dependencies reduce energy consumption. Education has to account for the globalization of practice and integrate new technologies and materials such as polymer composites, high-strength concrete, advanced casting technology and smart materials, into the curriculum. We would like to study the opportunities emerging as building production increasingly involves digital information that directly drives computer-controlled machinery for fabrication and construction. With the hiring of appropriate faculty and within the interdisciplinary framework of College, the Department should be equipped to face these challenges.
INTELLECTUAL ISOLATION, ESPECIALLY BETWEEN THE DIFFERENT FACULTY GROUPS

Compared to peer institutions or our own past, the Department today has fewer special events, symposia, or forums where faculty can discuss their creative research and collaborate. Because of conflicting demands on our time, often those that are held are poorly attended, which is also discouraging. Neither the weekly evening lecture series, though excellent, nor the ARC talks organized by the PhD students, are attended by more than a few, and usually the same, faculty. Faculty pursuing different paths of inquiry often have very little time or formalized opportunities to learn more about what each other do in depth. We feel we need to find easy ways to learn more about each other’s teaching to plan well for our future.

COMMUNICATE VISUALLY TO OURSELVES AND THE OUTSIDE WORLD

The Department’s visual communication to ourselves and the outside world of our strengths, especially faculty research (particularly that related to design practice) and student work, is poor, possibly one of the factors impacting lower matriculation numbers in the M.Arch Option 3 program. Many of the faculty are widely published and exhibited, win numerous design awards, and are invited to lecture at other schools. The Department has no media program to make use of these opportunities or to publicize the work of the faculty, although it is routine for schools to have a publications / media administrator dedicated to this role.

A subset of the faculty is exploring development of several types of publications and a new committee is charged with revamping the website has been put in place. (There is limited and relatively poor central support from the University for needs associated with publications of any kind, including digital communications.) One proposal is for a journal that would feature critical debate around current ideological issues within the discipline and the profession, engaging those who we already bring to campus for in our lecture series, an effort initiated by our graduate students and (we hope) resulting in a pamphlet publication. We plan to produce the first in this series in Spring 2010, so there will be some opportunity to evaluate this effort at the time of the NAAB team visit.

The desire in each of these efforts is to use such mechanisms to allow for faculty collaboration and conversation across disciplinary territories without, we hope, adding to faculty workload.

REDUCING STUDENT NUMBERS

In Section 1.5.3 The Future: Opportunities And Proposed Initiatives, we noted that there is not simply an imbalance in faculty load; the demands on our faculty have increased to an unsustainable point. Many of our faculty believe that reducing student population would simply not be acceptable to the University...
Administration, especially since the most likely population to be cut would be undergraduates, who traditionally justify our (rapidly dwindling) state support. Many of our faculty have their strongest commitments to our undergraduates, and all of us are understandably proud of the degree to which our undergraduates go on to be leaders at wealthier institutions such as Harvard, MIT, or Columbia University. We value the rich cultural diversity that is the result of our accessibility, and none of us wants to erode our diversity as we address the challenges ahead.

There is also an indirect impact of reducing the number of our undergraduate students on our M.Arch program. For example, fewer undergraduates would drop the demand for Graduate Student Instructors, which would also deprive us of educational experiences and financial support that many of our M.Arch students value.

It is generally agreed within the Department that that the M.Arch and M.S. populations are now so small that reducing them in size does not yield obvious savings. (We graduated 51 M.Arch students in 2003-2004 and only 32 in 2008-2009.) In 1998, our department had about 125.5 Masters students; in 2008, the overall count was 102. Commitment to the M.Arch in particular, our accredited program, is also evidenced in how decisions have been made regarding teaching distributions and staffing.

STUDENT EVALUATION OF INDIVIDUAL COURSES

Faculty teaching is assessed by course at the end of every semester. Students are allotted class time without the instructor present to fill out a Departmental evaluation form. A student is assigned to gather and return the forms to the Department Main Office. One side of the evaluation has 21 criteria that assess teaching on a scale of 1 to 7. In addition, there are two Berkeley survey questions that evaluate overall teaching effectiveness of an instructor and course worth in relation to other University courses. The other side of the form allows for more course specific feedback with three boxes that ask: 1. What do you perceive as the real strengths and weaknesses of this course? 2. What do you perceive as the real strength and weaknesses of the Instructor? 3. What improvements would you suggest?
### Course Evaluation Form – Page 1 (Scaled Responses)

**Department of Architecture • Student Description of Teachers • College of Environmental Design**

**Course:**

**Instructor Name:**

**Semester:** F Sp Su 20

---

The following items reflect some ways teachers can be described. For the instructor named above, please choose the radio button that indicates the degree to which you feel each item is descriptive of him/her. If the statement does not apply, place a check mark in the "N.A." box. Responses will not be returned to the instructor until after final grades have been submitted for the semester.

<table>
<thead>
<tr>
<th>The Instructor:</th>
<th>Not Descriptive</th>
<th>Very Descriptive</th>
<th>Doesn’t Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Discusses points of view other than his/her own.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>2. Encourages students to think about different ways to approach assignments.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>3. Discusses recent developments in the field.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>4. Emphasizes conceptual understanding.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>5. Explains clearly.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>6. Is well prepared for seminars/lectures.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>7. Comments constructively on assignments, exams or design projects.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>8. Encourages class discussion/interaction.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>9. Invites students to share their knowledge, experience and ideas.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>10. Invites criticism of his/her own ideas.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>11. Knows if the class is understanding him/her.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>12. Gives personal help to the students having difficulties in the course.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>13. Relates to students as individuals.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>14. Is accessible to students out of class.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>15. Attends class regularly.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>16. Stays in class for the full scheduled time.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>17. Is enthusiastic about his/her subject.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>18. Has interest in and concern for the quality of his/her teaching.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>19. Motivates students to do their best.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>20. Keeps students informed of their progress.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
<tr>
<td>21. Grades fairly &amp; justly.</td>
<td><img src="radioButtons" alt="Radios" /> 1 2 3 4 5 6 7</td>
<td><img src="radioButtons" alt="Radios" /> N.A.</td>
<td></td>
</tr>
</tbody>
</table>

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1. Considering both the limitations and possibilities of the subject matter and course, how would you rate the overall teaching effectiveness of this instructor?

   ![Radios](radioButtons) Not at All Effective 1 2 3 4 5 6 7

2. Focusing now on the course content, how worthwhile was this course in comparison with others that you have taken at the University?

   ![Radios](radioButtons) Not At All Worthwhile 1 2 3 4 5 6 7

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Submit by Email  Print Form

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3. The Thirteen Conditions of Accreditation
1. What do you perceive as the real strengths and weaknesses of this course?

2. What do you perceive as the real strengths and weaknesses of the instructor?

3. What improvements would you suggest?
The information is compiled into a report that can be accessed by a faculty member after grades have been assigned. A sample of the graphic summary:

The evaluations are used by faculty members to improve their teaching, and are taken very seriously as they are used by the Department in both merit reviews and promotions. In the case of promotions, faculty numbers are compared to the Departmental Averages for each semester.
3.7 HUMAN RESOURCE DEVELOPMENT

3.7.1 POLICY ON HUMAN RESOURCE DEVELOPMENT OPPORTUNITIES

Faculty in the Dept of Architecture benefit greatly from the extensive campus policies established through the Human Resources Center on campus. Too numerous to list here, in brief these policies and programs include a variety of continuous learning opportunities, benefits and financial planning resources, performance management training, career development workshops, and a host of other opportunities.

Within the department, we are committed to providing a wide array of opportunities for faculty and student development. Department-sponsored lectures, exhibitions, field trips, travel opportunities, and symposia are all ways that we can help each other provide for personal and professional growth. Our endowments and other departmental resources support scholarship to the maximum degree we can.

At the University level, there are numerous grant programs that help faculty in their career development. The Committee on Research (COR) is a standing committee of the Academic Senate, and awards research grants to Senate members by application.

RESEARCH ENABLING GRANTS:
Supports basic research expenses (e.g. books; library; field travel)
Maximum $1,000 award
Generally all requests are granted provided funding remains available, and the proposal meets program requirements

FACULTY RESEARCH GRANTS:
Competitive awards over $1,000; the average award is $5,000
Geared toward tenured faculty

JUNIOR FACULTY RESEARCH GRANTS:
Offered to assistant and associate professors who have not exceeded three (3) academic years in their tenure-track appointment
Purpose is to support junior faculty with the initial "seed" money associated with a major research project or creative pursuit
Competitive awards averaging $5,000

RESEARCH ASSISTANTSHIPS (RAships) IN THE HUMANITIES GRANTS:
Provides academic and professional development of Humanities graduate students under faculty mentors
Offered to meet the special needs of the humanities where external research funding typically is scarce

BRIDGE GRANTS:
Provides tenured faculty a "bridge" to explore new professional opportunities, research or creative endeavors representing a significant departure from their career areas of interest
Up to $20,000 for a two year period
CONFERENCE TRAVEL GRANTS:
Associate and assistant professors in the first two years of their tenure-track are eligible to attend a major meeting without the requirement of presenting a paper. Thereafter, an associate or assistant professor must be a scheduled presenter at a major conference, organized panel discussion, or symposium. The maximum grant for an associate or assistant professor is $800.00.

Full professors (including emeritus), senior lecturers and lecturers with security of employment, presenting original research at a major meeting of a recognized learned society, an organized panel discussion, or a symposium, are eligible for awards up to $700.

Travel grants may cover the cost of airfare; lodging; ground transportation; registration; and meals.

INTERCAMPUS TRAVEL GRANTS:
To collaborate with colleagues or to use research resources at other UC campuses, including the Huntington and Getty Museums,

Airfare only; maximum $250.

Also at the University level, the Committee on Teaching (COT) is a standing committee of the Academic Senate, and awards instructional improvement grants to Senate members by application. Instructional Improvement Grants provide funds (up to $3,000) for small-scale projects to improve existing courses, develop new courses, evaluate instruction, and assess curricular needs. The grant funds also support larger innovative projects that will directly and significantly affect teaching and learning, such as developing materials for new and existing courses and developing new modes of instruction. The Committee especially welcomes multi-disciplinary or team-taught projects, projects that involve large lecture classes, particularly at the lower division level, classes that have multiple sections, and/or classes that are heavily subscribed.

In addition, the Committee on Teaching encourages projects that respond to changes in education: for instance, projects that involve service learning and civic engagement, that enhance diversity, that encourage study groups, that promote active learning and engagement, that focus on speaking or writing skills, or that seek to improve classroom assessment.

Faculty members can apply for sabbatical leave every six years. Faculty with research grants can reduce their teaching appointments by being paid a commensurate amount by outside funds for their research. Faculty who want to pursue outside commitments more actively are granted leave without pay.

Our graduate students have several competitive Fellowships for the advancement of their work. Of these, the most prized is the John K. Branner Traveling Fellowship, an award of $25-35,000 to travel the world for a period from nine months to a year in preparation for their Master thesis. The T.Y. Lin Prize is awarded to students pursuing a joint project in architecture and engineering. The Chester Miller Fellowships are awarded for travel and research in relation to M.Arch thesis work. We also offer the Design Workshops Prize for studies related to construction and the Gerald Hoshi Memorial Prize for study of Japanese architecture or the built environment. Please see Section 3.1.2 for student awards and grants for development.
3.7.2 VISITING LECTURERS AND CRITICS

Our public lecture series is designed to acknowledge and embrace the diverse interests of the College and the broad and varied intellectual constituencies of the Department. There are an average of eight to ten speakers each semester, with lectures free and open to the public. Our lecture series is generously supported by the College, with funds from the William and Catherine Bauer Wurster Society Professional Members; as donations and endowments have dropped in recent years, funding has also declined over the period under review. Fortunately, this decline in support has been balanced by the addition of numerous Friedman and Esherick Fellows, respected professionals to teach in our studios. The Esherick and Freidman Fellows who have been brought to the campus during the period under review are included under Section 3.1.4 Architectural Education and The Profession. With their involvement in the lecture series, we have been able to maintain a high-profile lecture series, one reaching local practitioners, area alumni, and the public. During the 2009-2010 academic year, the Office of the Dean is a more active participant in the planning and oversight of the lecture series, with the hope of achieving greater synergy between departments.

One Fall lecture is co-sponsored each year with the East Bay Chapter of the American Institute of Architects and another lecture, offered irregularly based on funding (once in the period under review) is supported by one of our alumni, a principal of a large, corporate practice known for its high-rises; both of these lectures, understandably, emphasize professional practice and its successes. But as the list below shows, many others do as well. Understandably, we also try to find other sources of support specific to individual lectures. Tadao Ando, for example, spoke on this campus twice in Spring 2005, filling halls and overflow spaces with hundreds of people, until we were forced to turn others away. He was brought to the campus under a University program, the Regent’s Professorship. (Ando also gave small seminars attended by M.Arch students and offered an optional studio workshop while on the campus.) We regularly share travel costs for speakers with the California College of Arts in San Francisco, and occasionally co-sponsor lectures. In the period under review, we have also shared the costs of lectures with:

- The Arcus Endowment
- The Art, Technology, and Culture Colloquium of the UC Berkeley Center for New Media
- The Department of Theater, Dance, and Performance Studies
- The Center for Japanese Studies
- Berkeley Art Museum
- The Center for Middle Eastern Studies
- The UC Berkeley Canadian Studies program and the Consulate General of Canada/ Consulat Général du Canada
In recent years, all lectures are taped by Audiovisual Equipment Manager Joe Gouig and added to the University’s library collection for later review; some lectures in classroom settings by architects of stature are also routinely taped and added to this collection.

(This list can be reviewed at [http://www.lib.berkeley.edu/MRC/cedlectures.html].

Listed here are our lectures since the last NAAB review:

**Spring 2004**
(Committee: Roddy Creedon, Lisa Iwamoto)
- Andrew Zago | Furtive Projections
- Teddy Cruz | Border Postcards: Chronicles from the Edge
- Lawrence Scarpa | Ordinary and Extraordinary
- Presentations by Branner Fellowship Recipients
- Rafi Segal and Eyal Weizman | The Politics of Israeli Architecture
- Toyo Ito | Post Sendai Mediatheque
- Elizabeth Ranieri | Recent Projects: Kuth Ranieri
- Toshiko Mori | Material Evidence
- Henry Urbach | Recent Work and Other Appropriations
- Fumihiko Maki | Work

**Fall 2004**
(Committee: Roddy Creedon, Mark Anderson)
- Natalie Jeremijenko | Ask Not What Technology Can Do for You
- George Yu | Shop Lift
- Bernard Khoury | Plan B: Bernard Khoury in Beirut
- Mark Wigley | The Architectural Brain
- Javier Sanchez | Recent Work by Higuera + Sanchez
- Itsuko Hasegawa | A Lecture
- David Adjaye | Recycling, Reconfiguring, Rebuilding
- Douglas Burnham and Craig Steely | Local Practice
- Tom Wiscombe | Emergent Architecture
- Renee Chow | Fabrics, Follies

Related Symposia
Distributed Form: Network Practice, Architecture, Media, and Design

**Spring 2005**
(Committee: Roddy Creedon, Andrew Shanken)
- Marcelo Spina and Peter Zellner | Material Sensations
- Lindsay Brenner | Johannesburg: One City, Colliding Worlds
- Tadao Ando | Thinking Through Freedom: Contemporary Art and Architecture
- Luis Mansilla, Mansilla + Tunon | Battlefields
- Hugh Hardy | Getting Closer to the Bone
- Tadao Ando | Beyond Architecture: Contemplating our Environment
- Peter Walker | Before the Memorial
- Kolataan Sultan | Muten
- Presentations by Branner Fellowship Recipients
- nArchitects | Siting Interference
- Adrian Predock and John Fran | Chameleon Enterprises
- James Polshek | Architecture and Anonymity
- Angelo Bucci | Recent Work by SPBR, Sao Paulo, Brazil
- Ahmad Hamid | Building, Living, Dwelling: Architecture and the Arab Mind Today

Related Symposium and Panel
The Importance of Remembering: The National AIDS Memorial
- Design Competition Presentation and Panel Discussion with Competition Jurors. Walter Hood, Professor of Landscape Architecture, Reed Kroloff, Dean of the School of Architecture, Tulane University; Ken Ruebush Co-chair, National AIDS Memorial; Roddy Creedon, Moderator, UC Berkeley and The Arcus Endowment Board

Constructing Architectural History: Canons, Texts and Surveys, a Symposium

**Fall 2005**
(Committee: Roddy Creedon, Andrew Shanken)
- Massimiliano Fuxas | Four Projects, Lost in Translation
- IwamotoScott | Spatial Phenotypes
- Robert Swatt | Livable Modern
- Nader Tehrani | Disciplined Inconsistencies
- Steven Shortridge | Making Access
- Robert Swatt | Leadership and Advocacy Through Design
- Rocco Yim | Being Chinese In Architecture
- David Erdman and Marcelyn Gow | SERVO: Networking
- Craig Dykers | Recently: Thoughts in Architecture and the Work of Snøhetta
- Michael Maltzan | Oblique Actions
Spring 2006
(Committee: Roddy Creedon, Lisa Iwamoto, Nicholas de Monchaux)
Presentations by Branner Fellowship Recipients
Hitoshi Abe | The Elephant and the Architecture
Georgina Huljich and William G. O’Brien | Mutual Dependencies
Mark Dytham and Astrid Klein | Klein Dytham Architecture: Architecture is More
Alice Friedman | People Who Live in Glass Houses: Gender, Sexuality and Modernism
Dennis Crompton | Archigram Experimental Architecture, 1961-74 and Beyond
Jurgen Mayer | Re-public
Aranda / Lasch | Tooling
Takaharu and Yui Tezuka | Roofless Architecture
Thom Mayne: Morphosis | Continuities of the Incomplete

Related Symposia
Thinking / Drawing: Drawing in an Electronic Age
Conference of the Mayor’s Institute for City Design, Keynote:
Ken Greenberg | Focus on the Cities: The Expanding Potential of Urban Design

Fall 2006
(Committee: Roddy Creedon, Lisa Iwamoto, Nicholas de Monchaux)
Angelo Bucci, Brazil | Projects by the SPBR Studio
Keith Eggener, USA | Latin American Architecture, Beyond Critical Regionalism
Giancarlo Mazzanti, Colombia | From Global to Local – Latin America
Kathryn Moore | Dealing with the Aesthetics of Place
Rafael Iglesia & Mariel Suárez, Argentina | When the Problem is the Solution
Carol Reese, USA | Panama’s Tropical Modernity: New Towns and the Canal Zone
Alejandro Arevana, Chile | Elemental + Siamese
Galen Crazn | The Chair and Body Conscious Design
Sandra Barclay & Jean Pierre Crousse, Peru | Between the Desert + the Ocean
Pablo Castro & Jennifer Lee, Obra Architects, Argentina/USA | Incomplete Works: Mementos & Lacunae
Solano Benitez, Gabinete De Arquitectura, Paraguay | Messages from the Bottle

Spring 2007
(Committee: Roddy Creedon, Keith Plymale, Nicholas de Monchaux)
Brian MacKay-Lyons, MacKay-Lyons Sweetapple Architects, Halifax | Willing Paradises

Fall 2007
(Committee: Keith Plymale, Roddy Creedon, Nicholas de Monchaux)
Luke Ogrydziak + Zoe Prillinger, Ogrydziak / Prillinger Architects, San Francisco | Endgames
Brett Terpeluk, Renzo Piano Workshop, Genoa + Kang Kiang, Chong Partners, San Francisco | The Garden In The Factory: Converging Concepts of Sustainability at The California Academy of Sciences
Neil Denari, Professor-in-Residence, University of California, Los Angeles | Cultural Ergonomics: Shrinkwrapping Vogue Things
Jang Yoon Gyoo, Professor, Kookmin University; UnSangDong Architects Co., Seoul | Making Cultural Gap-Gap in Armor
Marion Weiss and Michael Manfredi | Surface/Subsurface
Cameron Sinclair, Architecture for Humanity | Design Like You Give a Damn
Bjarni Mastenbroek + David Gianotten, SeARCH, Amsterdam | SeARCH >> To Find a Home
Andrea Leers, Leers Weinzapfel Associates, Boston | Made to Measure
Marianne Weems, Builders Association, Brooklyn | Architecture in Performance

Spring 2008
(Committee: Keith Plymale, Nicholas de Monchaux)
Greg Lynn | Giant Robot Architecture
In addition to our public lecture series, there are always many other events in the College and on the campus, including colloquia of lunchtime lectures in the College (a partial listing of one such colloquium can be seen in Section 3.1.4 Architectural Education And The Profession), lectures sponsored by the College’s other departments, symposia and conferences, and other public events. While not all of these can be included, those interested can, for example, find additional events listed at: http://www.ced.berkeley.edu/events/calendar/conferences.
3.7.3 PUBLIC EXHIBITIONS SINCE 2003

The College of Environmental Design has a small room that is dedicated to exhibitions, Wurster 108, used mostly by the Department of Architecture. In addition, larger exhibitions in recent years have been staged elsewhere in the first- and second-floor lobbies. Exhibitions are included in the activities of the Lecture Committee and its student staff, and do not enjoy separate financial support. We are currently developing larger spaces for this purpose, as noted in Section 3.8.2 Description Of Physical Resources.

The Department returned to Wurster Hall after a significant seismic retrofit that predated our last NAAB visit. During construction, there were no exhibition spaces available to us; this is perhaps the reason that exhibitions were so limited in early years, growing to the more idea level we enjoy today.

For specific exhibitions, as with the lectures, we pursue outside support. For example, the Spring 2007 exhibition “2000 FF: New Forms in Weimar,” featuring twenty-four examples of contemporary architecture in Weimar, Germany, was sponsored by the DAAD (Deutscher Akademischer Austauschdienst), the German Akademic Exchange Service, Archiv der Moderne and Bauhaus Universitaet Weimar. Marvels of Modernism was co-sponsored by the Cultural Landscape Foundation. Since 2007; smaller exhibitions have also been organized by the College’s library and archives, displayed in large cases installed for that purpose. Those exhibitions are listed below followed with an asterisk. Beginning with Fatal Design in Fall 2008, once taken down, these exhibits will remain as virtual exhibits http://www.ced.berkeley.edu/cedarchives/exhibitions/

Fall 2004
Sandy Hirshen : Exhibition of Current Works

Spring 2005
Selected competition entries from the National AIDS Memorial Design Competition

Fall 2005
Inventioneering Architecture

Spring 2006
“Trajectories,” Exhibit of Maybeck Fellows Georgina Hulijich + William G. O’Brien
Cabin, Cottage + Camp

Fall 2006
The Work of Paulo Mendes Da Rocha
Projects by the SPBR Studio
Servo: Superficial Superglow

Spring 2007
2000 FF: New Forms in Weimar
House / Home
Jeannette Kuo : Territorial Tactics
Propuestas para Xochimilco. Arch 201 MXDF Studio with California College of the Arts and Universidad Iberoamericana, exhibited in the Main Gallery of the Consulate of Mexico, San Francisco.
The Architect’s Sketch: Vision and Document*

Fall 2007
NMDA Constructions 2004–2007: Recent Work of Neil M. Denari Architects
Alice / Florencia Pita, Los Angeles + Holy Ghost / Christopher Puzio, San Diego
The Architect’s Sketch: Vision and Document*
The Roving Eye—Travel and Design*
3.7.4 STUDENT SUPPORT SERVICES: ACADEMIC AND PERSONAL ADVISING

Student support exists through the university at large and also in specific efforts tailored to the academic needs of our M.Arch students.

DEPARTMENT SUPPORT FOR M.Arch STUDENTS

Each faculty member is formally assigned to mentor three to four graduate students, offering advice on course registration, for general academic advising, or even professional advising (helping to find jobs in local offices while in school, or broader career counseling). This formal mentoring is not closely tracked, and the specific services vary depending on the particular interests and needs of students when seeking advice.

In addition, the Chair of Graduate Advisers is also available to M.Arch students for consultations and is sometimes included in discussions between faculty and students, either for follow-up or in other ways. The Chair of Graduate Advisers works closely with the Graduate Student Affairs staff on students’ behalf: Graduate Office Manager and Student Affairs Officer, Lois Koch (1 FTE); Graduate Admissions Office, Sara McCarthy (1 FTE); and Student Awards and Prizes Specialist, Donna Ko (0.5 FTE). The Graduate Student Affairs staff are appreciated by all for their professionalism and patience. They encourage students to drop in with concerns, and keep candy or cookies around as enticements.
Far more important than the structured advising between faculty and staff is the casual interaction that is the result of close working relationships in the studio courses, the foundation of the M.Arch program, and in small research seminars throughout the Department. Advising may be generally informal, but faculty and students work closely together in studios and courses on a one-on-one basis, allowing for substantial personal guidance and mentoring for every student as they develop close faculty contacts during their time at the school. One exception is the case of students in the Option 1 (one-year) M.Arch program, which serves a small number of advanced students with 5-year B.Arch or international degrees and often extensive work experience. Because they have a very short tenure at the school, these students often do not build the close faculty contacts necessary for effective guidance and mentoring. Some faculty question the effectiveness of the one-year program, suggesting a minimum 1½-year course of study; others have suggested that the Option 1 program be eliminated. Many Option 1 students extend their tenure at Berkeley to 1½ or 2 years, regardless of the original expectation that this is designed as a one-year program (and often initially one of its appealing features for applicants). Currently, the Option 1 is a post-professional, non-accredited degree.

UNIVERSITY-WIDE SUPPORT FOR GRADUATE STUDENTS’ PERSONAL NEEDS

There are a number of campus organizations concerned with students’ wellbeing. We rely on these large campus organizations to serve the varied needs for personal advising that are an understandable part of our students’ lives.

- Career support includes an annual career fair for architecture students and another for those interested in engineering or construction.
- Disabled students, including those with common learning disabilities such as dyslexia, are addressed through Disability Access Services (http://access.berkeley.edu/)
- Physical wellbeing, ergonomic use of equipment, stress / mental health and substance abuse issues are dealt with by University Health Services at the Tang Center (http://www.uhs.berkeley.edu/students/index.shtml).
- A new, satellite counseling center for graduate students is also being established in the building immediately to the east of Wurster Hall.
- Legal services (http://students.berkeley.edu/osl/osl.asp?id=233)
- International student support, offering advice on visas and other issues of concern to non-U.S. citizens (http://internationaloffice.berkeley.edu/)

CAREER GUIDANCE

Career guidance happens at several levels. In addition to individual mentoring between students and their faculty adviser, the department hosts an annual career fair for architecture students (and another for those simultaneously interested in engineering or construction).
We also have a very extensive and heavily used web-based guide offered through the CED library that helps students with career planning. It offers various guides to developing careers in architecture, as well as links to various resources that help students with job hunting, including both professional and academic associations, and architectural career networking sites. http://www.lib.berkeley.edu/ENVI/jobs.html

Our College recruits employers to participate – especially Wurster Society members as well as other CED alumni and donors. The Career Center has a counselor assigned to CED (Ed Free) and has developed an online resource re: Architecture and Planning: https://career.berkeley.edu/Architecture/Architecture.stm

At the campus level, the UC Berkeley Career Center also provides guidance to our students, providing events, career counseling, networks to Cal alumni and links to professional organizations. Each February, the Center sponsors a CED Job Fair. There is also a Green Career Fair in February that many of our students attend.

Although we used to have intern programs for both our undergraduate and graduates, there were very few graduate students who wanted to take advantage of it, and so now the program only continues for undergraduates. It may be that because we have a 4+2 program, our M.Arch applicants often enter the program already with years of experience in an office, and so the internship class was of less interest to them. Our students seem to be very successful in finding architecture-related jobs during the summers either on their own, or through informal guidance from their advisors, and have not asked for internship programs to return.

### 3.7.5 STUDENT PARTICIPATION IN OFF-CAMPUS ACTIVITIES

Field trips and travel for classes are very much a part of students’ educational experience, from boat tours of the construction of the San Francisco Bay Bridge to seminars on shinkansen in Japan. In addition, as noted in Section 3.1.2 Architectural Education And The Students, the Department offers a generous competitive fellowship, the Branner Prize, for international travel and fieldwork related to thesis, as well as several smaller fellowships that also support fieldwork at home and abroad. We as a faculty believe strongly that our students benefit from connecting the critical discourse presented in the classroom to the world around us. The following examples describe travel abroad directly linked to coursework; initial text between the two lines is repeated from Section 1.5.1 Program Strengths.
International study. In the last ten years, the Department has used endowments such as the Branner and Moore funds to substantially subsidize faculty and student travel for design studios based on international sites and reflecting global trends in architectural practice. Even in today’s economically constrained times, we are able offer students rich educational experiences that recognize the diverse cultures of the world.

- Through a variety of funding sources, individual studios and seminars over the last few years have traveled to China, Japan, Brazil, Mexico, Thailand, and Argentina with Professors Nezar AlSayyad, Dana Buntrock, Raveevam Choksombatchai, Renee Chow, René Davids, and Harrison Fraker. These international studios often reflect and support faculty members’ creative production as well as students’ educational goals. These are further discussed below.

- The entering class of students in our three-year M.Arch program (in its Spring studio, 200B) travels with faculty for a two-week period over Spring Break, subsidized by the Department through endowments. Most often, these trips have been to Europe and reflect an urban orientation, allowing students to understand buildings in a broad international context. In Spring 2004, Susan Ubbelohde and Zöe Prillinger took students to Rome; in Spring 2006, Ubbelohde and Richard Fernau took the class to Portugal. In both 2007 and 2008, students traveled to Venice with Nicholas de Monchaux; they also traveled to Paris and Rome in 2008.

- In 2006, Dana Buntrock and René Davids also arranged for studios here in Berkeley to be taught by professionals from Japan and South America. These were supported by the Friedman funds; the effort to bring practitioners from abroad was temporarily suspended while the conditions of the award were reviewed. Recent agreements with the Friedman family make us optimistic that there will be further examples of such opportunities in the future. The complete list of Friedman Fellows is included in Section 3.1.4, Architectural Education And The Profession.

- Each summer, the Department sponsors the Denmark Architectural Design and Furniture Design Program, a seven-week residential studio program affiliated with the Danish International Studies program in Copenhagen, Denmark. The program is open to currently-enrolled undergraduate and graduate architecture students.

In addition, there are numerous examples of international opportunities for our students:

- As explained in Section 1.5.1, Program Strengths, the 2007-2008 “Nano City studio” organized by Nezar AlSayyad involved collaboration across the College, including participation by Susan Ubbelohde, Cris Benton, and Richard Fernau from our department, and additional faculty from the Department of City and Regional Planning. Financed by Hotmail/co-founder Sabeer Bhatia, the studio traveled to Delhi and Chandigarh, then developed proposals for a sustainable city on an 11,000-acre site near the capital city. For more on this studio, including photographs and discussion of design goals, see AlSayyad’s article “Global Engagements: Teaching Transnationally,” which can be downloaded at http://www.ced.berkeley.edu/alumni/publications/fr ameworks/issue6

- Renee Chow has taken Arch 201 studio groups to China four times in the period under review, often working in collaboration with local universities. In Spring 2004, Chow’s studio collaborated with Tongji University, traveling to Zhujiajiao, a canal village outside Shanghai. (Former Dean Harrison Fraker returned to Tongji University with a new group of students in Spring 2007.) A year and a half later, in Fall 2005, Chow brought a studio to Shanghai in parallel with another M.Arch studio from Hong Kong University. In Fall 2006, Chow and students worked in Tianjin, the port city of Beijing, collaborating with Tianjin Institute for Urban Construction and the Tianjin Art College, and in Fall 2007, she returned to Zhujiajiao with a studio group. In these trips, Chow emphasizes the relationship between the city fabric and architecture, with a heightened awareness derived from comparisons between Western and non-Western traditions. Students are introduced to both vernacular and contemporary architecture. The mixed-use, large-scale developments students observe in China are unlike those in established cities in the developed world, and these experiences prepare graduates for global practice. The studios’ work, along with that of Chow’s professional practice,
were exhibited at the Hong Kong Shenzhen Bi-City Biennial on Architecture and Urbanism in Hong Kong from January to March of 2008. The work of the studios only was again exhibited from August - September 2009 in the Beijing Urban Planning Centre, an exhibit curated by the USC American Academy in China. The costs of student and faculty travel for these studios were significantly subsidized by Departmental funding and discretionary support linked to the endowed chair Chow holds, with only modest costs to students.

- In Spring 2007, Harrison Fraker arranged a joint studio involving both undergraduate and graduate students from the departments of Landscape Architecture, Architecture, Urban Design, and Transportation Design at UC Berkeley and Shanghai’s Tongji University, supported by the Gordon and Betty Moore Foundation. Faculty included Dean Fraker, Judith Stilgenbauer from Landscape Architecture, and two alumni from the Departments of Architecture and Landscape Architecture, David Baker, and Clark Wilson. With a focus on sustainability and the integration of high-speed transit networks, students responded to urban development research challenges set by the City Government of Jianxing, a second-tier city about 80 kilometers from Shanghai. The students traveled to China early in the semester to study their site; a smaller group returned at the end of the semester to present the classes’ work. The pamphlet produced for this class over the following summer was bilingual and the presentation to government officials was in Mandarin; four of the eighteen Berkeley students in the class spoke Mandarin.

- In Fall 2004, Harrison Fraker, working with David Dowall from the Department of City and Regional Planning and Tom Lollini, Vice Chancellor, Physical and Environmental Planning, also supported by the Gordon and Betty Moore Foundation, brought fifteen students to Beijing and Tianjin for two trips, one in September and a follow-up trip presenting work in December. Students in the group were from the Departments of Architecture, Landscape Architecture, and City and Regional Planning, and developed guidelines for transit-oriented development in Tianjin, producing a bilingual publication.

- René Davids has taken M.Arch students to Central and South America in three consecutive semesters. The first was a Spring 2007 Arch 201 called the “MXDF” Studio, involving students not only from UC Berkeley, but also those from the California College of the Arts and Universidad Iberoamericana. During a trip to Mexico, “Students were asked to research Mexican culture, artists, and architects; study precedents; create films; and collect rubbings and photographs of the building / construction site in Mexico. They were also required to draw and research twenty pieces displayed at the Anthropology Museum in Mexico City…”42 Student work was exhibited in the Main Gallery of the Consulate of Mexico, San Francisco and at the Universidad Iberoamericana. A bound book is available on this work and it can be seen on a Course Gallery at: http://arch.ced.berkeley.edu/courses/gallery/arch201-sp07-davids

- The following year, Spring 2008, Davids brought his studio to São Paulo, Brazil. On a web site summarizing the course,43 Davids outlined its objectives:
  - to analyze and understand the forces that created the São Paulo megalopolis;
  - to contribute ideas to São Paulo’s latest reform efforts and participate in the awakened interest in ecological issues and the relationship between nature, topography, the city and its people.
  - to visit some of Brazil’s Modernist masterpieces
  - to reinforce the links between the department of architecture at U.C. Berkeley and the University of São Paulo, Mckenzie University in Rio and peoples of the Americas.

- In the Spring 2009, Davids and his M.Arch students based their investigations in Buenos Aires, Argentina, “[c]ontinuing the investigation of the relationships between architecture, infrastructure and urban waterways previously explored in Xochimilco, Mexico and in the Tamanduatei River Basin in São Paulo, Brazil…”44 Students in this studio used Flickr to share photography and produced short, skillful movies (now available on YouTube) that acted as their own critical problem statements for their goals. These films and their subsequent design projects can be seen on the Course Gallery at:
  http://www.ced.berkeley.edu/courses/sp09/arch201/davids/

- Raveevarn Choksombatchai brought an ARCH 201 Studio of 13 students to Thailand in Spring, 2007. The class worked with a group from Chulalongkorn University’s International Program in Design and Architecture, in a workshop setting, building an installation. Travel was partially subsidized by Departmental funds.
• Dana Buntrock’s Arch 265, Japanese Craft and Construction (also briefly mentioned in Section 3.1.4 Architectural Education And The Profession) is scheduled in the Spring semester of odd-numbered years. The class travels to Tokyo over Spring Break in order to closely study innovative structures under development or recently completed; student teams interview architects, contractors, engineers and fabricators. To date, there has been no charge to students for this travel, subsidized by solicited donations and Buntrock’s original “start-up” funds. In 2009, the 15 students in the seminar, 14 from the M.Arch program, represented eight nationalities. Students’ photographs from the Spring Break research trip are available at http://www.flickr.com/photos/sumikaproject/sets/; in the first six months this site was posted, it received 65,000 “hits.” We also received publishing requests from Colombia and Spain; as a result, photography by the class was featured in Spain’s widely-read Pasajes Arquitectura Y Critica.

Closer to home, our students also enjoy regular field trips for studios and other classes.

• ARCH 140, Energy and the Environment, a shared course in the building sciences, Cris Benton’s ARCH 244, Secret Life of Buildings and ARCH 245, Daylighting, all visit the Pacific Energy Center at least twice each semester; in many cases, students return independently to work on assignments and borrow tools from the facility’s $1.5-million collection of evaluative equipment, at no cost. During visits to PEC, students are shown techniques for InfraRed imaging, orientations systems, and use of a heliodon and mirror box sky simulator. Staff discuss techniques for disaggregation of whole-building energy costs and other ways of evaluating energy usage.

• Paul Groth’s Summer ARCH 179, Seminar in Architecture History: Field Study of Architecture and Urban History, is entirely a field-based course, with 8 all-day Friday field trips. The group walks from one BART station to another in Berkeley, Oakland, San Francisco, and Pleasanton, along the way surveying building types, neighborhoods, and periods of historical urban growth. About half the discussion relates to architect-designed buildings and settings, the rest to half vernacular / industrial landscapes.

• Groth also offers two graduate seminars each year (currently one architecture seminar and one geography seminar), and a fourth to a third are consistently M.Arch. students, again out of 20 total. Groth writes, “I always have one field trip day in the syllabus. For [ARCH 279,] Small Homes of the Twentieth Century[,] we visit various high-style and vernacular neighborhoods, with as many open houses as I can arrange, usually in the East Bay.”

• Dana Buntrock’s ARCH 264, Off-site Fabrication: Opportunities and Evils, visits Bay area building component fabricators, observing equipment and operations and asking “how can architects work better with component fabricators?” Popular plants include a small steel detailer/fabricator on Mare Island, a precaster in Antioch, and a wood framing panelizer / truss plant in Fairfield. Until recently, Walters and Wolf, a local curtain wall fabricator, was also a strong supporter of the seminar and it also would often visit the office of Michelle Kaufman, which shut in the summer of 2009. Students interview both a fabricator and a designer about the development of a specific component, often traveling to do so; those from the 2008 class, for instance, traveled to Reno, Nevada and southern California for their research.

• Groth also offers two graduate seminars each year (currently one architecture seminar and one geography seminar), and a fourth to a third are consistently M.Arch. students, again out of 20 total. Groth writes, “I always have one field trip day in the syllabus. For [ARCH 279,] Small Homes of the Twentieth Century[,] we visit various high-style and vernacular neighborhoods, with as many open houses as I can arrange, usually in the East Bay.”

• Dana Buntrock’s ARCH 264, Off-site Fabrication: Opportunities and Evils, visits Bay area building component fabricators, observing equipment and operations and asking “how can architects work better with component fabricators?” Popular plants include a
And on our campus:

- Mary Comerio’s Arch 253, Seismic Design and Construction, has made a point of visiting many innovative buildings under construction to observe in situ the changing character of structural responses to earthquakes. Prior to 2003, Comerio and her seminar visited many major public buildings under construction with these seminars, including Pixar; the City Halls and Berkeley, Oakland, and San Francisco; the San Francisco Ferry Terminal and the Berkeley Public Library. Encouragement in the 2003 NAAB Visiting Team Report led Comerio to increase observations on campus; as she prepared to take on greater administrative responsibility in 2005, this seminar was no longer offered.

3.7.6 STUDENT ACCESS TO PROFESSIONAL SOCIETIES, HONOR SOCIETIES, AND OTHER CAMPUS ACTIVITIES

Our students are active in several organizations of the kind that play an important role in professional development, including AIAS; the Triangle Fraternity for Engineers, Architects, and Scientists; and other professionally-oriented groups converging around shared interests or cultural background, such as the Chican@/Latin@ Architecture Student Association (CASA). CASA has retreats each semester; AIAS meets several times each month, makes firm visits regularly, and invites in professional speakers. These groups are represented at a table in the first floor lobby of Wurster Hall several days a week, and there is always a cluster of students around it. College organizations are listed at http://www.ced.berkeley.edu/advising/studentlife. These CED-specific student organizations are listed on an Undergraduate Advising web page because these groups tend to draw more heavily from the undergraduate population than our graduate students.

The resources are available to all. Our graduate students indicate that they feel they have sufficient experience and understanding of the profession and other conflicting demands on their time; they do not seem to see the same need for these organizations that our undergraduates do.

Campus-wide organizations supported by the Associated Students of the University of California (ASUC) include not only AIAS and CASA, but also Habitat for Humanity, Rebuilding Together at Berkeley, Building Sustainability at Cal, Partnership for Pre-Professional Philippinos (P4), and the architecture media (am) journal. The journal has a high degree of M.Arch student involvement and is spearheaded by Ceara O’Leary (M.Arch / Opt. 3 + MCP ’10), Melissa Smith (M.Arch ’11 / Opt. 3), and Justin Short (M.Arch ’10 / Opt.
3). It published its second volume, 2:AM, in October 2009, featuring work by Professors Nicholas de Monchaux and Mark Anderson, and projects from M.Arch studios

Examples of organizations external to the Department, which attract M.Arch students each year, include the Stanford-Berkeley Real Estate Challenge sponsored by NAIOP, the Commercial Real Estate Development Association, now in its 21st year. Teams from each school are assigned a project site and given sixty days to come up with a development proposal. The teams act as independent real estate advisors, recommending a strategy for a development site that addresses market conditions, financial returns, economic feasibility and community needs. Students receive independent study credit, though hardly in proportion to the hundreds of hours they devote to the competition. The winning 2009 team included Behnam Farahpour (M.Arch ’09 / Opt. 3); the winning 2008 team included Erin O’Mahoney Cubbison, LEED AP (M.Arch / Opt. 2 + MLA ’08). Cubbison now works for Gensler in San Francisco, and was able to offer advice and support to the 2009 team.

Since 1992, the College has worked with alumni from all departments to maintain the CEDA Mentorship Program, which offers students opportunities to develop a better understanding of the professions through the insight of knowledgeable alumni. This program exposes students to a range of opportunities that demonstrate what it “really means to be a design or planning professional” as well as access to professional advice regarding resume and portfolio development and career options. Mary Cocoma from External Relations says they do not maintain statistics, but reports, “We currently (2009-10) have 101 mentors and 82 students registered. Many major firms are represented, especially now that the online matching system allows for long distance relationships,” and also that, “Due to the number of architecture students, they do dominate, with DCRP second. The program works best for graduates students but some undergrads do participate.”

3.7.7 POLICIES, PROCEDURES AND CRITERIA FOR FACULTY APPOINTMENT, PROMOTION, TENURE AND ACCESS TO DEVELOPMENT OPPORTUNITIES

As might be expected of an institution of our stature, there are objective, rigorous and thorough processes in place for promotion and tenure, intended to maintain expectations of quality and reputation for the University as a whole. The University’s stated intent is “building and maintaining a faculty of the highest excellence” while assuring candidates “just recognition and encouragement for achievement.” The review evaluates candidates based on their performance in teaching, research and creative work, professional activity, and university and public service. The University’s minimum standards for tenure to the faculty are stated clearly in the Academic Personnel Manual:
Research and creative work is expected at a level befitting the standards of the university as whole. Notably, the University clearly states that "As the University enters new fields of endeavor and refocuses its ongoing activities, cases will arise in which the proper work of faculty members departs markedly for established academic patterns. In such cases, the review committees must take exceptional care to apply the criteria with sufficient flexibility. However, flexibility does not entail a relaxation of high standards. Superior intellectual attainment, as evidenced in both teaching an in research or other creative achievement, is an indispensable qualification for appointment or promotion to tenure positions."48

"Clearly demonstrated evidence of high quality in teaching is an essential criterion for appointment, advancement, or promotion. Under no circumstances will a tenure commitment be made unless that is clear documentation of ability and diligence in the teaching role."49

"Professional competence and activity" is treated as a separate category for schools and colleges where applicable, and specifically indicated as important in our own field, architecture. The Academic Personnel Manual sets expectations of quality very high, requiring "The candidate’s professional activities should be scrutinized for evidence of achievement and leadership in the field and of demonstrated progressiveness in the development or utilization of new approaches and techniques for the solution of professional problems…"50

University and public service is defined as service “…to the community, the State and the nation…”51

The College adopted elaborations of these expectations in its “CED Guidelines for Appointment and Advancement” in May 2003, with revisions in April 2006. These apply to our Department as well. As with the University guidelines outlined above, the College guidelines underscore the fact that our community expects not only proficiency in current practice, but critical awareness of the emerging demands in our fields, clearly stating, “Professional work evolves rapidly as technological and social changes demand new skills, new strategies, and new roles for designers and planners.” The document continues, emphasizing our “contributions are often in defining new areas for research and practice, identifying new problems or reformulating old ones so that they are more amenable to solution.”

In terms of the mechanics of this review, each candidate, whether being evaluated for a mid-career appraisal, promotion to tenure/Associate Professor or Professor, or advancement to Professor Step VI, prepares a dossier of performance, typically including a curricula vita, Statement of Activities, a list of courses taught and the candidate’s response to teaching evaluations, selected publications or representations of creative work, and other appropriate supporting materials. This package is then reviewed by a minimum of five to six reviewers external to the campus.

The Chair also appoints two or three faculty to serve as an Ad Hoc Committee. The Ad Hoc Committee receives both the candidate materials and the outside reviewers’ evaluations. Based on the case material and letters, the Ad Hoc Committee deliberates and develops a specific recommendation, writing a report to the faculty for review. The candidate receives a copy of the report and is given ample time to respond if s/he desires to do so.
Based on these materials, faculty above the rank of the candidate meet and vote on the recommendations of the committee; these recommendations are included in a letter from the Chair, stating the Department’s evaluation of the candidate and this material is in turn advanced to the Dean, and then to an ad hoc committee representing the university organized by the so-called “Budget Committee” (which, since its decisions are not based on economic considerations, is now called the Committee on Academic Personnel on many of the UC campuses). The Budget Committee again reviews the complete package of materials, including all recommendations and other documentation and forwards its recommendation the Chancellor or the Academic Vice Chancellor for final determination.

As noted in Section 3.6.2 Faculty: Balance Between Teaching And Other Responsibilities, faculty promotions under this system have been uniformly successful of late. As part of preparation for our Academic Program Review, the University Office of Planning Assistance reported that in the ten years between 1997-1998 and 2007-2008, seven faculty were promoted from Assistant to Associate Professor: Anderson, Buntrock, Choksombatchai, Chow, Crysler, Davids, and Iwamoto. All are still serving on the faculty and are considered to be moving satisfactorily toward their next promotion, although perhaps at a slightly slower pace than statistical norms. Ten faculty were promoted from Associate to Full Professor: AlSayyad, Benton, Bosselmann, Bourdier, Brager, Cranz, Davids, Dubovsky, Groth, James-Chakraborty, and Ubbelohde.

3.7.8 FACILITATION OF RESEARCH, SCHOLARSHIP, AND CREATIVE WORK

SABBATICAL LEAVES AND LEAVES WITHOUT PAY

As we are expected to remain productive in areas of research and creative activity, and in light of the extreme demands on our time when resident on campus, flexible access to leaves is highly valued by faculty. There are two types of sabbatical leaves available to faculty: regular sabbatical leave and sabbatical leave in residence.
Those on regular sabbatical are excused from all duties related to teaching and committee / administrative duties.

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<thead>
<tr>
<th>Qualifying Service</th>
<th>Single semester leave</th>
<th>Academic year leave</th>
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</thead>
<tbody>
<tr>
<td>4 semesters / 2 years</td>
<td>0.44 % of salary</td>
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<tr>
<td>5 semesters / 2 ½ years</td>
<td>0.56 % of salary</td>
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<tr>
<td>6 semesters / 3 years</td>
<td>0.67 % of salary</td>
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<tr>
<td>7 semesters / 3 ½ years</td>
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<tr>
<td>8 semesters / 4 years</td>
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<tr>
<td>9 semesters / 4 ½ years</td>
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<td>0.50 % of salary</td>
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<tr>
<td>10 semesters / 5 years</td>
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<td>11 semesters / 5 ½ years</td>
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<td>12 semesters / 6 years</td>
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<tr>
<td>14 semesters / 7 years</td>
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<tr>
<td>16 semesters / 8 years</td>
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<td>0.83 % of salary</td>
</tr>
<tr>
<td>18 semesters / 9 years</td>
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<td>full salary</td>
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Sabbatical leave in residence is intended to encourage faculty to combine research and study with teaching either at their home campus or at another campus of the UC system. The teaching load is relatively light, only one class meeting a minimum of 3 hours per week; it is possible to request substitution of significant University service for teaching as well. The faculty member is freed from all committee / administrative duties.

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<td>10 semesters / 5 years</td>
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<td>0.83 % of salary</td>
</tr>
<tr>
<td>11 semesters / 5 ½ years</td>
<td></td>
<td>0.92 % of salary</td>
</tr>
<tr>
<td>12 semesters / 6 years</td>
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<td>full salary</td>
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</tbody>
</table>

Leaves with or without pay may be taken for purposes relating to regular duties, such as when faculty accept a fellowship. Leave without pay for good cause may also be taken, normally for a period of no more than one year; extensions may be requested. Such leaves, when unrelated to an academic career, may not exceed two years. Leaves are generally considered to be off the tenure clock and faculty do not accrue sabbatical credit while on leave.

Other kinds of leave related to the birth of a child, parenting responsibilities or care of a family member are briefly discussed in Section 3.4.1 Social Equity Regarding Faculty And Staff.
DEPARTMENT SUPPORT FOR FACULTY

In our current constrained situation, financial support is extremely limited. However, each of the tenured or tenure-track faculty is given $1000 in annual discretionary funds, which can be used for routine expenses such as classroom copies, parking passes for visitors, and other incidental expenses. If carefully managed, this fund can also be used to supplement University funds for conference travel, outlined below, or for equipment such as printers.

We also have two endowments that help provide support for faculty. One is the Joan E. Draper Architectural History Research Endowment, intended to support the teaching, research, and creative activities of faculty, emerging scholars, and staff in the College of Environmental Design at the University of California, Berkeley in the area of architectural and urban history and the conservation of historical records and images. The other is the Eva Li Endowed Chair in Design Ethics. The purpose of the Eva Li endowment is to advance the study of architecture with a preference for investigations that examine the ethical consequences of design processes and decisions in personal, cultural and ecological terms. Income may be used to examine the suppositions underlying design processes, to evaluate the work of the architectural profession through critiques of buildings, places and policies and to explore practices that explicitly address questions of ethical importance.

COMMITTEE ON RESEARCH GRANT PROGRAMS

The Committee on Research (COR) is a standing committee of the Academic Senate that awards research grants to Senate members. The Committee on Research announced in September 2009 that it would soon release a plan for allocating to about 150 of the lowest-paid ladder rank faculty (those with base salaries below $85,000, which includes nearly all of our Assistant and Associate Professors) summer salary supplements equivalent to their pay reduction this year, in response to the submission of non-competitive research proposals. Faculty being paid under $85,000 are described by COR as “disproportionately concentrated in the arts and humanities and the humanistic social sciences, including those disciplines with selected professional schools, such as Education and Social Welfare, among others.” Many of our faculty are in this group.
The Committee on Research Grant Programs also offers the following:

- **Research Enabling Grants.** Supports basic research expenses (e.g. books; library; field travel). Maximum $1,000 award. Generally all requests are granted, provided funding remains available and the proposal meets program requirements.

- **Faculty Research Grants.** Competitive awards over $1,000; the average award is $5,000. Geared toward tenured faculty.

- **Junior Faculty Research Grants.** Offered to assistant and associate professors who have not exceeded three (3) academic years in their tenure-track appointment. Purpose is to support junior faculty with the initial “seed” money associated with a major research project or creative pursuit. Competitive awards averaging $5,000.

- **Bridge Grants.** Provides tenured faculty a “bridge” to explore new professional opportunities, research or creative endeavors representing a significant departure from their career areas of interest. Up to $20,000 for a two year period.

- **Conference Travel Grants.** (Note: with budget restrictions in the 2009-2010 year, these funds are limited to $600.) Associate and assistant professors in the first two years of their tenure-track are eligible to attend a major meeting without the requirement of presenting a paper. Thereafter, an associate or assistant professor must be a scheduled presenter at a major conference, organized panel discussion, or symposium. The maximum grant for an associate or assistant professor is $800 on one occasion each year. Full professors (including emeritus), senior lecturers and lecturers with security of employment, presenting original research at a major meeting of a recognized learned society, an organized panel discussion, or a symposium, are eligible for awards up to $700. Travel grants may cover the cost of airfare; lodging; ground transportation; registration; and meals.

- **Intercampus Travel Grants.** To collaborate with colleagues or to use research resources at other UC campuses, including the Huntington and Getty Museums. Airfare only; maximum $250.

**OTHER FINANCIAL SUPPORT FOR RESEARCH**

In addition, many of our faculty benefit from research support offered by campus research centers such as the Townsend Center, Center for Japanese Studies, the Center for Middle Eastern Studies, the Center for New Media, etc. These units sometimes offer faculty research support comparable to, or more generous than, the support offered by the Department or Committee on Research, creating an incentive for the overlapping relationships faculty have with the Department and other units or organizations on campus. A few examples of recent grants from these sources include:

- **Nicholas de Monchaux,** $10,000 from the Center for New Media, for work on “Local Code” a project further described in Section 3.1.1 Architectural Education And The Academic Context. The funds covered the cost of 1.67 FTE GSR support over the summer.

- **Dana Buntrock,** $7000 from the Center for Japanese Studies, to travel to Taichung and Taipei, Taiwan and Tokyo, Japan during Summer 2009. Buntrock interviewed those involved in the development of Toyo Ito’s Taichung Opera House, including the mayor of Taipei, the local architect and contractors, Toyo Ito and his staff.

- **Andrew Shanken** received a President’s Research Fellowship in the Humanities (roughly $20,000) and a Humanities Research Fellowship (roughly $10,000), both awarded in 2007 and used to support his sabbatical in 2007-2008.

- **Ronald Rael** received a $6,000 Junior Faculty Research Grant in the 2008-2009 academic cycle.
There are additionally a number of system-wide opportunities for funding, usually with the expectations of cross-campus collaboration, available. University-wide support is listed at http://www.spo.berkeley.edu/Links/UC.html. Many of our faculty take advantage of these opportunities. One such example is:

- Yehuda Kalay, with others, received a 5-year, $3.58M grant from the University of California Multicampus Research Programs and Initiatives, to develop the Center for Ubiquitous Communication by Light (UC-Light), which will explore the use of LEDs for illumination and communication.

Faculty new to the Department are better supported, due to the practice of assigning “start-up” funds to all new hires. For new faculty at the Assistant Professor level, these funds tended to be in the mid- to high- five figures during the period under review. Wise faculty are encouraged to shepherd these with care; they are by far the most important source of research support within the Department.

The Vice Provost For Academic Affairs and Faculty Welfare additionally administers two fellowships on behalf of junior faculty: The Hellman Family Faculty Fund, with up to $50,000 in support for the research of promising assistant professors who show capacity for great distinction in their research and the Regent’s Junior Faculty Fellowships, offering up to $5,000 in summer salary support. Two of our Assistant Professors received Hellman Family Faculty Fund Awards this year. However, it is fair to say that this information is not well disseminated and earlier hires may not have pursued these awards in the period of eligibility. The information about grant opportunities and deadlines is forwarded to faculty via e-mail, but there are no other established mechanisms in place to encourage faculty to pursue University support or inform them of appropriate opportunities.

AREAS OF CONCERN IN PROFESSIONAL DEVELOPMENT

In general, it is fair to say there is sufficient non-competitive support for small research efforts; the opportunity to pursue medium-range competitive funds from the University for more ambitious research, especially for collaborative efforts, is also good. In normal years, there is some support for teaching materials of specific kinds through the University, although these funds are not available in 2009-2010 and likely will not be available in 2010-2011.

The most glaring lack of support is for the routine and on-going needs of faculty, which are generally not met by the university and cannot be met by the Department in the current economic climate. An example of this is
the modest amount offered by the University for conference travel, limited to $700 or $800 in a good year, and only $600 in the current year. (Department money is not available for conference travel.)

Needed equipment and is another area of understandable contention. Shrinking support for faculty by the University has been designed to transfer the costs of professional development to each individual with the (inaccurate) assumption that there are research funds available to cover costs: without phones in our offices, we use our own cell phones; without funds for computers, we simply use older systems and older softwares when we can; without support for travel from the university, we pursue opportunities for interactions with academic colleagues through lecture opportunities.

**3.7.9 EVIDENCE FACULTY MEMBERS REMAIN CURRENT IN THEIR KNOWLEDGE OF THE DEMANDS OF PRACTICE**

Our work and its recognition clearly demonstrate that we as a faculty do not simply remain current – we lead the profession, in spite of heavy demands on our time and our simultaneously strong commitment to teaching. It is our work as architects and educators that allows others to stay current in communities beyond our campus. This is evidenced by our output.

Design awards to practitioners on our faculty since the last NAAB review:

Mark Anderson, AIA

- Educational Facility Design citation (Modular Zero Energy Classroom in Hawaii), AIA National, 2009
- Honor Award for a Small Project (Texas Prairie Hopper in Fort Worth), the American Institute of Architects California Council, 2009
- Merit Award, Off-Grid 2.0 Ideas Competition, California Architectural Foundation and the William Turnbull Jr., FAIA, Environmental Education program.
- Honorable Mention (SpongeComb), Zumtobel Award for Sustainability and Humanity in the Built Environment, 2007
- Honor Award for Excellence in Architecture (CamelBackShotGunSpongGarden), AIA San Francisco, 2007
- Honor Award (Chameleon House, Michigan), AIA San Francisco, 2006
- Merit Award (Arboretum of the Cascades), AIA San Francisco, 2006
- Citation Award (Organic Urban Living Field), AIA San Francisco, 2006
- Faculty Design Honor Award (Chameleon House, Michigan), ACSA, 2006
- Progressive Architecture (P/A) Award (Arboretum of the Cascades), 2006
- Progressive Architecture (P/A) Award (Wurster Workshop), 2006
- Faculty Design Award, Association of Collegiate Schools of Architecture, 2006
- Citation (Chameleon House, Michigan), AIA East Bay, 2005
- Citation (Orchard House, California), AIA East Bay, 2005
- Design Award (Wurster Workshop), Boston Society of Architects, 2005
Raveevan Choksombatchai, Assoc. AIA

- Honor Award in Interior Architecture (Gillis Library), AIA San Francisco Chapter, 2007
- Design Citation Award in Unbuilt Architecture (National AIDS Memorial Proposal), AIA San Francisco Chapter, 2007
- Finalist, Tsunami Memorial and Museum International Design Competition, 2006
- Finalist, AIDS Memorial International Competition 2005

Renee Y. Chow

- Honor Award (Washington Manor Branch Library), AIA San Mateo County, 2008
- Honorable Mention, “New Canal Town in South China” International Design Competition, Shanghai Qingpu District Government, 2005
- AIA Research and Technology Honor Achievement Award (Suburban Space: The Fabric of Dwelling), AIA California Council, 2003

René Davids, FAIA

- Citation, Unbuilt Architecture (Plug-in Pavilion), AIA San Francisco, 2009 with Taylor Medlin (M.Arch / Opt. 2010)
- First Prize (Plug-in Pavilion), Central Glass International Architectural Design Competition, 2008
- President’s Award, Metal Construction Association, 2004

Richard Fernau, FAIA

- Sunset - AIA Western Home Merit Award (Montana Urban Homestead), 2007-2008
- Citation for Architecture (Eastside Performing Arts School), AIA East Bay, 2007
- AIA Housing Committee Award (Avis Ranch), AIA National, 2005
- American Woods Council Merit Award, 2006
- AIA Housing Committee Award, AIA National, 2005
- Merit Award (West Marin House), AIA California Council, 2003

Maria Paz Gutierrez, Assoc. AIA

- Best Interior Design Merit Award (Dover DE Bay Health), Interior Design Magazine, 2006

Lisa Iwamoto

- Research+Design Award (Vousoir Cloud), Architect Magazine, 2009
- Wood Design Honor Award, Canadian Wood Council and Wood Design and Building, 2008
- Well Tech Award (Hydro-Net) awarded at the Milan Furniture Fair, 2009
- Grand Prize, History Channel City of the Future: San Francisco 2108 design competition, 2008
- Design Citation (REEF), AIA San Francisco, 2007
- Honorable Mention, Unbuilt Design Award (Jellyfish House), AIA San Francisco, 2007
- ‘Best of the Bay’ Unbuilt Design Award, AIA San Francisco, 2007
- Next Generation Design Awards, Metropolis Magazine, IN-OUT Curtain, 2006
- Faculty Design Award (IN-OUT Curtain), Association of Collegiate Schools of Architecture, 2006
- Honorable Mention (mOcean), Environment Category / I.D. Design Awards, 2005
- ‘Best of the Bay’ Unbuilt Design Award (2:1 House), AIA San Francisco, 2005
- Progressive Architecture Citation, 52nd Annual P/A Awards, 2005
- Detail Aesthetics and Construction Prize (Digital Weave), Detail Magazine, 2005
- Emerging Talent Design Award, AIA California Council, 2003
- ‘Best of the Bay’ Unbuilt Design Award (Fog House), AIA San Francisco, 2003

Jill Stoner

- WINNER one of three unranked. “Imagining Recovery,” International Competition sponsored by Columbia University, coordinated with the first 100 days of the Obama presidency. 2009
- AIA Merit Award (East Oakland School of the Arts, AIA San Francisco, 2007)
M. Susan Ubbelohde, Assoc. AIA, LEED AP

- Unbuilt Merit Award (Robinson-Linde Laboratory for Global Sciences Coelostat Reuse, California Institute of Technology), AIA East Bay, 2009
- Green Building Superheroes v3 Award (The Brower Center), USGBC Northern California Chapter, 2009 with Solomon ETC Architects
- Platinum LEED Certification (Novus International Headquarters, St. Charles, MO), with Forum Studio, 2009
- AIA/COTE Top Ten Award (Chartwell School), AIA National, 2009, with EHDD Architects,
- Honor Award Energy + Sustainability, AIA San Francisco Design 2007
- Green Apple Award, Collaborative for High Performance Schools, 2007
- Environmental Protection Agency, Environment Award, 2007
- Governor’s Environmental and Economic Leadership Award, 2007
- Certificate of Merit (Sarah Heinz House and School), AIA Pittsburgh 2009 with William McDonough + Partners
- Next LA Honor Award (Art Center College of Design Student Housing), AIA Los Angeles with Daly Genik Architects, 2008
- AIA Institute Honor Award for Architecture (New York Times Building), American Institute of Architects, with Renzo Piano Workshop and FX/FOWLE, 2009
- New York Municipal Art Society Best New Building Award, 2007
- Sustainable Design Commercial Honor Award (Apple Store Fifth Avenue), AIA New York City Chapter, with Bohlin Cywinski Jackson Architects, 2008
- Award of Excellence for Design, AIA New York State Chapter, 2007
- Merit Award, AIA San Francisco, 2007
- Business Week/Architectural Record Design Award, 2006

- Building Award for Sustainability (Alameda County Juvenile Justice Center), CEMEX U.S. 2008, with Hellmuth Obata Kassabaum Architects and Beverly Prior Architects
- Excellence Award (Floor International Headquarters), Design-Build Institute of America, 2006, with Forum Studio Architects
- Highly Commended Sustainability Leadership Award for Design, IDA/AIA, 2007
- Honorable Mention for Sustainability Award, IIDA Texas/Oklahoma Chapter, 2007
- Excellence in Sustainability Award (Carnegie Institute Department of Global Ecology, Stanford), AIA San Francisco, 2005, with EHDD Architects
- Savings By Design Energy Efficiency Integration Award of Honor 2005
- Lab of the Year Special Mention, R + D Magazine, 2005
- AIA/COTE Top Ten Green Projects, AIA National, 2007
- Livable Buildings Award, UC Berkeley Center for the Built Environment, 2007
- Honor Award for Sustainability (Art Center College of Design South Campus, Pasadena), AIA National, 2004, with Daly Genik Architects
- Honor Award, AIA Los Angeles Chapter, 2008
- Design Honor Award, AIA California Chapter, 2006
- American Architecture Award, The Chicago Athenaeum, 2005
- City Rebuilding Presidential Honor Award, AIA Los Angeles Chapter, 2005
- Diamond Award (Frito-Lay Distribution Center, Henrietta, NY) ACEC New York Chapter, 2006, with William McDonough + Partners
- Green Roofs Award of Excellence (The GAP Corporate Campus), 2003, with William McDonough + Partners
BOOKS PUBLISHED

A large portion of our faculty author important books regarding the influences and expectations of the profession today – including many books authored by design faculty, who would not conventionally be expected to be active as authors. We achieve this in part by involving our students in our work, inviting their insights in critical discussions on unfolding ideas and including them in original research. The list below includes the names of more than half our current faculty and the books that we have published since the last review, or ones are forthcoming before the 2010 team visit:

Nezar AlSayyad
- Traditions: the Real, the Hyper, and the Virtual in the Built Environment (London, Routledge, forthcoming 2010)
- The Fundamentalist City (London, Routledge, forthcoming 2010)
- Müslüman Avrupa Ya Da Avro-Islam [Muslim Europe or Euro-Islam], co-edited with Manuel Castells (Istanbul, Turkey: Everest, 2004). In Turkish.
- Europa Musulmana O Euro-Islam [Muslim Europe or Euro-Islam], co-edited with Manuel Castells (Barcelona: Alianza Editorial / Ensayo, 2003). In Spanish

Jean Paul Bourdier
- Bodyscapes, with introduction and DVD by Trinh T. Minh-ha (San Rafael, CA.: Earth Aware Editions, 2007)

Dana Buntrock

Greg Castillo

Renee Chow
  “Chow has given us a wonderfully detailed look at the single-family house and its surroundings and has made a persuasive argument for change.” Brenda Case Scheer, Journal of Planning Educations and Research (2004)

Margaret Crawford
- Nansha Coastal City: Landscape and Urbanism in the Pearl River Delta, co-edited with Alan Berger (Cambridge: Graduate School of Design Harvard University, 2006)
- Everyday Urbanism: Margaret Crawford vs. Michael Speaks (Michigan Debates on Urbanism) (Ann Arbor: Taubman College of Architecture, 2005)

Mark Anderson

Peter Bosslemann
C. Greig Crysler
• *Handbook of Architectural Theory*, co-edited with Stephen Cairns, Hilde Heynen and Sibel Bozdogan (Sage Publications, forthcoming, Fall 2010))
"Crysler provides valuable insights into a number of mechanisms that underlie the rise and fall of discourses on architecture and urban space." Christien Klaufus, *International Journal of Urban and Regional Research*, 2006.

René Davids
• *Details: Technology and Form*, with Christine Killory (New York: Princeton Architectural Press, forthcoming 2010)
• *Detail in Process*, with Christine Killory (New York: Princeton Architectural Press, 2008)
• *Details in Contemporary Architecture*, with Christine Killory (New York: Princeton Architectural Press, 2006)
"By entering into an area of architectural publication so brilliantly established by the *Detail* series of periodicals and books, and the Ed Ford volumes on the details of modern and contemporary architecture, Princeton Architectural Press has set itself a big task." Bobby Open, *Architectural Review*, 2008
"Killory and Davids provide a visual companion to some of the most difficult and somewhat enigmatic construction commitments in contemporary building." J.E. Gayods, *Choice: Reviews Online*, (Association of College and Research Libraries) 2007.

Nicholas de Monchaux

Paul Groth
The volume’s strengths lie in two principal areas, the first of which is the careful attention the editors gave to making a varied collection of essays work together as a book. Wilson and Groth clearly put much time into planning this volume—from selecting the essays to arranging them in sections to the careful editing of each individual contribution—and they should be commended for the end result. … Evaluating Jackson’s contribution is really secondary to evaluating the field of cultural landscape studies, which is what I take to be the second strength of this book." Anna Vemer Andrzejewski, *Winterthur Portfolio*, 2003

Lisa Iwamoto
"For thoughtful readers … Professor Iwamoto’s work constitutes an exceptionally helpful synthesis of the origins and nature of digital fabrication in architecture, supplying needed clarity to a movement so young and dynamic that there have been few other serious attempts to explain its development." structurehub.com

Yehuda Kalay
• *New Heritage: Cultural Heritage and New Media*, co-editor with Thomas Kvan and Janice Affleck (London: Routledge, 2007)
"Yehuda Kalay’s book [New Media] is a valuable contribution to the literature of architectural computation and an important marker in the field’s still evolving history." Peter Anders, *Leonardo on-line*, 2005

Ronald Rael
• *Earth Architecture* (New York: Princeton Architectural Press, 2008)
"Architects tend to approach earth construction either as a primitive, anti-industrial technology of and for the poor, or with enthusiasm, as sustainable, sophisticated, and adaptable – though resistant to commodification. Ronald Rael is sensitive to this polemic in *Earth Architecture*….The photography is exquisite and Rael’s analysis succinct. . . . From an introduction tracing the history of earth architecture to an afterword addressing hybrid building systems and the digital process of ‘contour crafting,’ Rael offers a balanced reconsideration of earth architecture’s central issues and 40 of its most interesting built representations.” T.A. Horton, *Architectural Record*, October 2009

Andrew Shanken
"194X brilliantly lights up that most obscure of subjects, the hypothetical architecture of the war years—a visionary body of ideas, forms, and images—which though unbuilt was every bit as influential as the fantasy architecture of
Piranesi. In every respect, this is an original and splendidly written contribution by one of the field's most promising scholars." Michael Lewis, Professor, Williams College

Jill Stoner
• Poems for Architects: An Anthology, editor (San Francisco: William Stout, 2001)
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3.8 PHYSICAL RESOURCES

3.8.1 LABELED PLANS
3. The Thirteen Conditions of Accreditation
3. The Thirteen Conditions of Accreditation
3. The Thirteen Conditions of Accreditation
3. The Thirteen Conditions of Accreditation
3.8.2 DESCRIPTION OF PHYSICAL RESOURCES

The Department of Architecture occupies over 95,000 square feet in Wurster Hall, sharing the building with the Department of City and Regional Planning, the Department of Landscape Architecture, the Urban Design program. The building also houses vestigial spaces for Visual Studies and studios for Art Practices, which is for the most part housed in a building immediately west, Kroeber Hall. Lecture halls, exhibition spaces, library, and cafeteria are generally shared with the other departments within the college. The Department's territory includes studio spaces, laboratory and shop spaces, smaller classrooms, and offices.

STUDIOS

Architectural design studios, including undergraduate studios, occupy five floors of the nine-story Wurster Hall tower above the north wing of our building. Studio space is essentially open space, in some cases partially subdivided by cross partitions; walls maintaining a central corridor have been built since our last NAAB visit, following the design by Continuing Lecturer Roddy Creedon. Most students change studio locations each semester. They have several large worktables available to them, recently purchased, and ample space.

Graduate studios on the eighth and ninth floors occupy slightly less than 10,000 square feet. Each studio floor has one or two seminar rooms at the east end, generally referred to as “tube rooms” (because they resulted from the additional of a vertical structural tube that was part of seismic retrofitting at the beginning of this century). State funds for this retrofit targeted life safety and structural issues only; the completion of these spaces, intended for seminars, critiques and other informal classroom uses, were designed and donated by local firms. These were completed prior to our 2003 NAAB visit. In some cases, maintenance and sound isolation prevent these spaces from being fully utilized. Recently installed “keypad” locks have increased security on each floor, for individuals and for equipment.

LECTURE ROOMS

The largest lecture hall, Room 112, is off the main lobby on the first floor of Wurster Hall; it seats 155 on chairs, and an addition 20 or more on stadium seating and stools along a mezzanine. It was designed by Stanley Saitowitz with help from Charles Salter; its acoustics are excellent. The stage is accessible via a wheelchair lift. The space is intensively used by the College’s three departments throughout the day, for public lectures, large lecture classes, meetings, and symposia. In Fall 2009, the room was upgraded with new lighting, audio-visual equipment, padded seating with tablet arms, and new carpeting. A small lecture room, Room 102, is to the north of Room 112 on the same floor. Room 102 seats 75 and, while control is held outside the Department, it is sometimes used for architecture classes and small public lectures. It remains
is a state close to that of its completion nearly half a century ago; while slated for University upgrades, these remain a relatively low priority for the campus administration.

CLASSROOMS/SEMINAR ROOMS

Five major classrooms are located along the west side of the ground floor: Rooms 170 and 172 on the south end, and Rooms 101, 104 and 108 on the north end. A small seminar room that is locked and kept clean, Room 270, is very popular with students and faculty; in Fall 2009 it is being equipped with digital tools and a large monitor, supported entirely with private donations. Room 108 is generally used for exhibitions; the remaining rooms are used for regularly scheduled architecture classes as well as juries and other non-regularly scheduled events. The Department controls classroom scheduling. In addition, there are smaller seminar rooms controlled by the Department located in the studio areas; these are discussed above. Table 9 lists classrooms/seminar rooms. In Spring 2009, we negotiated return of Room 101; during in Fall 2009 it is being significantly upgraded with the help of private donations for the purpose. The new interior was designed by a graduate of our program, Anne Fougeron, an award-winning architect. Digital tools to support teaching will be installed as part of the upgrades. This room will seat 50.

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<th>Architecture Classrooms in Wurster</th>
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EXHIBITION SPACES

Exhibitions of student and other work are held in various spaces, including the first and second floor lobbies, and Room 108. Room 108, which is controlled by the College, is a lockable room that can be used for smaller exhibitions of art, photographs, furnishings, architectural photographs, and models, rotated throughout the semester. Six large 8’ x 8’ x 2’ foot moveable display panels are used to partition the first floor lobby wall space. The lobbies are used mostly for display of studio work, usually following completion of a
particular class project, or at the end of the semester. The lobbies are also used occasionally for large traveling exhibitions. More exhibition space, centrally located and finished with care, is needed to provide a first rate prominent gallery space for the whole College. The Simulation Lab, which housed a scale model of the city of San Francisco in Room 120, was decommissioned and moved to a smaller facility in mid-2009. This large room will be further enlarged by opening it up to the adjacent Photography Laboratory, creating the opportunity to develop a major gallery space for the College, currently underway. The College also received generous private support for display cases installed in the College’s Library in 2007; recent exhibitions involving the Department’s faculty and staff are noted in Section 3.7.3 Public Exhibitions since 2003. For more on these display cases, see also http://www.lib.berkeley.edu/ENVI/news.html

The Department would benefit from the design and installation of other new, more visible display surfaces in fixed locations or in moveable form. The exhibition capacities of elevator lobbies and corridors are underutilized, though some faculty have begun to regularly encourage their classes to take these surfaces over for the display of work. Because of life safety and accessibility concerns (especially related to flammable materials or materials projecting from the walls), this is an area that would benefit from careful thought. The service elevator lobbies are currently being redesigned to create more exhibit space, and comfortable seating, taking these issues into account. There have been suggestions that the Department might explore opportunities for rationalizing office door signage in ways that provide an opportunity to display the work associated with various units and offices. These would need to be similarly considered in terms of life safety and building codes.

REVIEW SPACE

Reviews are conducted in the first and second floor lobbies, classrooms, and seminar rooms. They are scheduled by Michael de Leon, who works to coordinate the demands of various large groups. With the use of digital tools, we find student work is becoming increasingly large, which creates scheduling problems and demands, but also results in exciting transformations of our public spaces on the first and second floors at the end of each semester. The program would benefit from an updating of display surfaces and the lighting systems that serve them, and from more contained and quieter review spaces. Lighting improvements are underway in the first floor public areas and the addition of the Gallery in an expanded Room 120, noted above, will greatly enhance review space resources.
3. The Thirteen Conditions of Accreditation

FACULTY OFFICES

There are 42 private and shared offices set aside for architecture’s faculty, lecturers and GSIs, most located on the third floor, but with a number also clustered around the elevator on the fourth floor of the south wing of Wurster Hall, and three offices in elevator lobbies in the tower. With an average of thirty regular faculty and as many as twenty part-time lecturers in residence each semester, the available offices provide private space for all regular faculty. Lecturers are usually assigned to offices of faculty members who are on leave, but a number do share offices with faculty members who are in residence. Overall, there is great room for improvement in areas such as computer hardware and wireless support, furnishings, and custodial services.

ADMINISTRATIVE OFFICES

The main Departmental office, in Room 232, handles reception, general administration, undergraduate advising, classroom scheduling, office assignments, Departmental correspondence, academic personnel cases, and all business matters. It is located on the second floor directly opposite the building’s eastern, second floor entrance and adjacent to the Dean’s office. Department offices were updated following our building’s seismic retrofit (completed shortly before our last NAAB review in 2003) and tend to have more contemporary furniture systems demonstrating some attention to ergonometic issues. Office shortcomings are generally tied to budget pressure, e.g., the Department has struggled to provide a copy machine for faculty use and did not do so for a time in the 2008-2009 academic year. Currently, faculty members use a $1000 annual administrative fund made available to each tenured or tenure-track member for copying or printing privileges on the Department’s computer network. Office supplies, including materials such as letterhead, are a thing of the past. The graduate office, which handles graduate admissions, advising, maintenance of graduate student records, and the enforcement of academic rules and regulations pertaining to the graduate program is located on the third floor, in Room 370. Students in the M.Arch and M.S. programs are encouraged to drop in with questions for staff, and seem to use the opportunity without reservation.

ARCHITECTURE SHOP

Located in Room 277 Wurster, the Architecture Shop is a 4,350 square foot high-bay machine shop and hand-tool facility. Fully equipped for projects in wood, metal, plastics, and concrete, it supports a variety of course-related activities in the graduate and undergraduate program. It is open six days a week, including three evenings a week while school is in session. Adjoining the shop is a larger joint-use space for fabrication of projects and models and an outdoor shop yard for applying finishes. Supervision and assistance are
available at all times during normal operating hours. All students must take a shop orientation in order to use
the facility. The Architecture Shop, well-maintained and staffed, supports the fine tradition of fabrication
valued in the profession and in our program. The facility is intimately and explicitly linked to pedagogy in
courses related to design and construction and also serves as a valuable resource for developing artifacts
and presentations in a broader range of courses and design studios. In many ways the existing Architecture
Shop harkens back to design instruction in the first half of the twentieth century, when many schools engaged
design over a wide range of endeavors, from the making of objects to planning at a city scale. As with many
of our facilities, our challenge in the shop is maintaining a fresh, forward-looking vision of its role in the
current day and in the future of our instruction. Toward this end, new exercises in the Department’s
construction courses have taken great advantage of the shop’s capacities. The shop is open Monday through
Wednesday 9 a.m. to 9 p.m., with an hour break for lunch; Friday 9 a.m. to 5 p.m., with an hour break for
lunch; and Saturday and Sunday 10 a.m. to 5 p.m., with an hour break for lunch. The schedule is sometimes
altered to meet the demands of specific groups. Students must pay $90 per semester for shop access; this fee
will no longer be levied on M.Arch students when the Professional Differential Fee is instituted.
### CURRENT SHOP EQUIPMENT

<table>
<thead>
<tr>
<th>Name</th>
<th>Volts</th>
<th>Amps</th>
<th>Phase</th>
<th>Air y/n</th>
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### CAD/CAM LABORATORY

The CAD/CAM Laboratory is a renovated facility developed on the fourth floor of the south wing of Wurster Hall, in Room 481 Wurster, intended to support “clean” CNC processes. There is an additional space located outside the existing woodshop that houses the CNC router. These labs largely support M. Arch students in design studios, who use the modest equipment for laser cutting, 3D printing, and milling. Our investment in physical output equipment has transformed studio presentations in the graduate program and is...
quite evident in the undergraduate work as well, even though we strictly limit undergraduate access to this equipment to upper level 101 studios. It would be fair to say that there never seems to be sufficient equipment in the area of digital production; demand is constant and insatiable. However, in looking at the facilities and equipment available at other public universities (but not our private cohorts), we can argue that we have been successful in supporting a high degree of access to equipment for the M.Arch students. This has been done through developing relatively closed systems of access. The CAD/CAM Laboratory was established with start-up funds allocated to faculty hires in the area of “making,” and aggressive fund-raising and pursuit of grants by Lisa Iwamoto. We were also able to use higher user fees to set aside funds for upgrading digital equipment until 2007; in that year, University policy was changed, increasing user loads and reducing collected surpluses. We were required to spend set-aside funds, and significant equipment upgrades occurred in 2008-2009. Around $80,000 was spent on equipment in this area in 2008-2009; in addition, security / electronic upgrades and exhaust fans and other installation costs of around $83,000 were required to accommodate new CAD / CAM equipment in the same period.

Equipment includes:
- Universal Laser Systems X-660 laser cutter
- Z-Corp Z400 3-D starch printer (purchased in 2008-2009)
- Stratasys Dimension FDM 3-D printer
- Techno-Isel 5’ x 10’ 3-axis CNC Router

Trained student technicians are available 30 hours each week to assist in the creation of digital files and facilitate use of the machines. Specially trained M.Arch students with a strong understanding of the lab’s operation and safety procedures are given after-hours card-key access to the lab for use of the laser cutter only. Managing this resource is difficult; the equipment is sophisticated, and student demand requires extended hours of operation.

Still, this type of facility is essential to inquiry in contemporary architectural design. Current plans are underway to redesign and remodel the existing shop to accommodate CNC mills, laser cutters, Z-Corp printers, and eventually a robotic arm, assuring greater supervision as well. In the future it seems likely that the traditional Architecture Shop functions will mesh more closely with the physical output capacities of our nascent CAD/CAM laboratory and thus these facilities are being reorganized to allow greater control by shop staff. Surveys of equipment use were done in September, 2009; it is likely we will be able to explain more about how these spaces have been or will be consolidated during the Team Visit. Students must pay $210 per semester for shop access; this fee will no longer be levied on M.Arch students when the
Professional Differential Fee is instituted. The fee currently supports employment of student technicians who train users, provide clean-up and maintenance, and in general monitor use and safety. Additional fees are charged for materials.

BUILDING SCIENCE LABORATORY

The Department's Building Science Laboratory includes a controlled environment chamber to evaluate thermal, climatic, and air quality effects on comfort and health; a boundary layer wind tunnel for the study of building infiltration/exfiltration, natural ventilation, air flow patterns, and air velocities; an artificial sky to evaluate building daylighting performance; and an array of measurement devices for examining and recording the effects of environmental factors in buildings. These facilities support both the teaching and research activities of the department. The Building Science Laboratory is a unique facility, entirely dedicated to research on building performance, technology, and human-building interaction. It continues to support instruction with facilities that are principally supported by extramural funds. Currently the laboratory is used to support the building science core lecture and seminars, and is also used by individual students who want to utilize the instrumentation or facilities as part of their thesis work. Currently, the primary benefit to these facilities accrues to students in M.S. and Ph.D. programs; it will be beneficial to greatly expand building science facilities and resources in order to integrate with studio courses and to support all other courses.

PHOTOGRAPHY LABORATORY

The Department's Photography Laboratory was the last major darkroom on campus associated with an academic unit. Six years ago the College managed the Photography Laboratory; faced with budget cuts, the Dean’s Office proposed eliminating the facility. Instead, it was transferred to the Department, where great effort was made to reduce its operating costs through reductions in force and the use of volunteers, coordinated by Continuing Lecturer Janet Delaney. It remained a valued facility for a select but enthusiastic group of students, mostly undergraduates, within the College, and it supported a consistently oversubscribed set of courses in Visual Studies. However, last year the wet darkroom was finally closed for financial reasons and also in recognition of the increasing trend in using digital photography.

MATERIALS LIBRARY (ARCHITECTURAL TECHNOLOGY RESOURCE CENTER)

The Materials Library is currently located in Room 493, in a shared space with the Visual Resources Center; with Fall 2009 reductions in staffing of the Visual Resources Center, it is possible that the Materials Library will be relocated before the Team Visit in Spring 2010. The library houses a range of building materials
samples, both conventional and odd, used in teaching the Introduction to Construction courses at the undergraduate and graduate levels. Materials are numbered and organized in four glass-fronted cases. We explored making these resources available for drop-in hours with the use of Undergraduate Research Assistants in 2005-2006, but found demand insufficient to justify the effort and cost involved in maintaining this as an open resource, in part likely because of the out-of-the-way location.

CENTER FOR ENVIRONMENTAL DESIGN RESEARCH / INSTITUTE FOR URBAN AND REGIONAL DEVELOPMENT

These areas, housing offices and staff dedicated to research, are currently being reorganized due to campus centralization of business services for research support. They will be reorganized prior to the 2010 Team Visit due to staff cuts.

HAVENS HOUSE

“The Weston Havens House is a masterwork of Harwell Hamilton Harris, an architect who contributed importantly to re-directing the design of Modern architecture in California from the European International Style, as embodied in the Southern California works of Richard Neutra and R.M. Schindler, to a regional expression of Modernism, drawing on works by Bernard Maybeck and William W. Wurster.” The Maybeck and Esherick Fellows are often housed here, and there are occasional receptions.

3.8.3 DESCRIPTION OF CHANGES TO PHYSICAL FACILITIES, UNDER CONSTRUCTION OR PROPOSED

As part of the Fall 2009 reorganization of staff to address the University of California’s economic state, many support units are being reorganized. This document has already been revised in October 2009 to reflect staff layoffs in computer support and the Visual Resources Center (five individuals total on October 1). As a result, spaces are also being reviewed for rationalization; it is possible that some areas indicated on the plans will have been reconfigured by the time of the Team Visit. As noted above, there is a space reorganization underway that will yield greater space for exhibitions and juries, and a parallel effort to consolidate the workshop and CAD/CAM equipment. In addition, spearheaded by Cris Benton, lighting in Wurster Hall’s public spaces is being replaced to increase energy efficiency (to date, lighting energy has been reduced by a substantial 25%).
3.8.4 DESCRIPTION OF HARDWARE, SOFTWARE, NETWORKS, AND OTHER
COMPUTER RESOURCES AVAILABLE

In the Fall of 2008 and again in Fall 2009, available services and staffing in the computing area were and
continue to be reorganized, due to the budget cuts; in October 2009, two full-time staffers, supported by
student workers, remains to address Department faculty and student needs and some College requirements.
Guy Vinson supports mainly Architecture faculty and instruction, but also provides computing/network support
for the Dean’s Office (including External Relations, the College Archives, and Havens House), fee collection,
and security and cardkey support to the entire College. The impact of on-going layoffs likely to be seen in
Spring 2010 cannot be easily predicted. Our web presence is handled by a single staffer in the College,
Kari Holmquist; faculty dissatisfaction, especially by those from the design community or conversant in
computer use, is high, leading to the establishment of a Departmental committee to address the issue. Each
department currently has independent computing facilities and staff.

ARCHITECTURE COMPUTING RESOURCES

Management of digital fabrication tools is discussed under Section 3.8.2 Description Of Physical Resources.
Until 2007, user fees were set to support the regular replacement and upgrading of equipment; university
policy changes required that this practice be abandoned. We are hopeful that the Professional Differential
Fee will allow for funding for this purpose. As a result of the policy changes mentioned above, the last major
upgrade of equipment occurred in 2008-2009. This included:

- 25 new workstations (Dell Optiplex 531 and iMacs)
- HP LJ 5550 dtn printer
- HP t1100 (1) and t1120 (2) plotters
- Large-format scanners (2) for the studios
- Epson 3800 Pro Printer (originally installed in the Photo Lab, moved to Room 479)
- 52” Display Monitor (kept in A.V.)

Using separate funds, the Department also purchased a CNC router, which has been installed in the Shop.
Roughly $53,000 was spent on computing equipment, printers and plotters between July 2008 and August
2009. (Almost $80,000 was spent for CAD / CAM equipment in the same period.) Software licensing
costs are listed below as well, and accounted for slightly more than $40,000 in expenditures in the same
period. The Student Lab is located in Room 479 Wurster Hall. It is open around the clock, but sometimes
reserved for use by specific classes. There are twenty Dell Optiplex 531s and two iMacs in the lab. Support
is available to students from 9 a.m. to 5 p.m. each weekday. The staff provide as student support for
hardware and software questions for workstations or personal laptops, acting as the first location for questions on a broad range of concerns. This is an area of high demand. Students pay a fee of $60 per semester for access to the workstations and printing, but this fee also includes off-hours access to the building via key card and $20 printing credit. We also moved many of the plotters, scanners, and printers in to the studio environment from their earlier location in labs in a separate wing of the building, a move made possible because of security upgrades to the studios. These moves increased user satisfaction, but also added to demand. The equipment lists for the two graduate student studios floors follow the list of all equipment.

### STUDIO RESOURCES

| Workstations | 10 total, 2 per studio floor, 6th-9th |
| Plotters: | |
| Designjet HP t1055, 36" width | 2 (6th and 8th floors) |
| Designjet HP t1100ps, 36" width | 1 (9th floor) |
| Designjet HP t1120ps, 36" width | 2 (Room 479) |
| Tabloid color laser printers, HP 5500 /5550 | 5 (Room 479, 6th, 7th, 8th & 9th floors) |
| Printers, letter color laser, HP 4600 | 1 (PhD room) |
| Epson Expression 10,000xl scanners | 3 (7th, 8th & 9th floors) |

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<th>Print size</th>
<th>Color / B+W</th>
<th>Cost to student</th>
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<td>B+W</td>
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</tr>
<tr>
<td>Large format</td>
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</table>

### HARDWARE

- Total Instructional Computers: 30 (25 purchased in July, 2008)
- Total computers (faculty, staff, instruction): 300
- Dedicated File and Data Servers: 5

### APPLICATIONS

Applications available on all Departmental lab machines include but are not limited to the following:

- Office automation (Microsoft Office)
- Internet (Microsoft Explorer)
CAD (AutoCAD2010)
Modeling and Animation (Autodesk 3D Studio MAX, Autodesk Maya)
Rhino CAM
Revit
Structural Analysis (SAP 2000)
Graphics (Adobe Photoshop, Illustrator, In-Design)
Adobe Lightroom photo software
Other (Adobe Acrobat, Acronis for backup)

As mentioned above, in 2008-2009, the Department spent slightly over $40,000 on software licenses.

Additionally Wurster Hall has access to a university-wide ubiquitous wireless network for students and faculty. Until 2008, the College maintained its own wireless hubs, but these have been abandoned in favor of the University's systems. The costs in materials and equipment for the changes to this component of our IT support alone was over $35,000 in the 2008-2009 academic year, as the transition to the University system required equipment replacement.

A proliferation of studio workstations, portable computing devices, computer-based media, and client-server architectures connects each of us with the Department's computer network on an almost constant basis. Computer-based media now comprise the Department's principal communication channel for teaching, administration, archiving and sharing information, and external relations – having displaced a variety of print media that we can no longer afford. Budget pressures in 2007-2008 precipitated the loss of our Assistant Dean for Computing and the department's Network Administrator, developments that raise practical concerns about the stability of our system and our capacity to plan strategically in a rapidly changing digital environment.

3.8.5 IDENTIFICATION OF ANY SIGNIFICANT PROBLEM THAT IMPACTS THE OPERATION OR SERVICES, WITH A RECOMMENDATION FOR IMPROVEMENTS

Many of the above problems are related to our declining economic situation. The situation is clearly not sustainable; budget cuts are reflected in the loss of basic elements of institutional infrastructure such as telephones, copiers, and letterhead. Our 2008-2009 Building Occupant Survey regarding Wurster Hall identified issues of cleanliness and maintenance as the source of major occupant dissatisfaction, and since
that time two more custodians have been laid off; even a casual inspection of Wurster Hall finds conditions that reflect poorly on the Department and the University.

We have made recent technology improvements to several classrooms in the building during Fall 2009, and are, as we noted earlier in this section, beginning a reorganization of first floor spaces that will allow for larger, lockable gallery areas. The shop and CAD/CAM equipment is also being consolidated.

RAMONA’S CAFÉ

Ramona’s occupies what was originally intended to be lockable exhibition space. Starting out informally as a student-operated ‘soup kitchen’ during the late nineteen-sixties and early nineteen-seventies, the space was completely renovated and an outdoor terrace was added by Berkeley architects Richard Fernau and Laura Hartman (both are Berkeley graduates and Fernau is a faculty member). It was converted into a campus-run cafeteria for students, staff, and faculty. Open weekdays until mid-afternoon, it occasionally offers service for special receptions and other events. Its walls usually display photography or crafts by faculty, students, and alumni. Ramona’s occupies a space that was not designed to be a food service facility and, in consequence, food odors and vendor deliveries are problematic. Ramona’s uses the minor entrance hallway at its rear as a “back porch” for storage and cleaning supplies—very unattractive and often partially blocking the doorway. Vendor deliveries, garbage removal and storage outside of the vendor facility all spill over into the review and classroom space, badly impacting the ability to teach in these core spaces of the teaching facility. Sounds from the back door and garbage removal and delivery are so noisy and rudely intrusive into the teaching space that this is not a tolerable interaction between an academic building with a for-profit business enterprise. The Dean is currently working with campus food services to dramatically improve both the physical facilities and culinary offerings of Ramona’s.
3.9 INFORMATION RESOURCES

3.9.1 THE ENVIRONMENTAL DESIGN LIBRARY

DESCRIPTION OF THE INSTITUTIONAL CONTEXT AND ADMINISTRATIVE STRUCTURE OF THE LIBRARY

The Environmental Design Library, a branch of the UC Berkeley Library system, is one of the premier design libraries in North America. The remodeled quarters for the library, on the second floor of Wurster Hall, were opened in 2002. The Environmental Design Library supports the instructional and research needs of the three departments that make up the College of Environmental Design: Architecture, Landscape Architecture and Environmental Planning, and City and Regional Planning. The Library describes itself on its web site in this way:

A branch of the UC Berkeley Library system, the Environmental Design Library supports the research and teaching of the College of Environmental Design. In addition to a large selection of electronic resources, the Library’s collection includes more than 211,000 volumes and subscriptions to more than 600 serials from all over the world. The Environmental Design Library receives approximately 65% of the serials indexed in the Avery Index; 78% of relevant titles in Art Abstracts; 90% of those in Art Index Retrospective; and 90% of the titles in the Association of Architecture School Librarians list of core periodicals. It should be noted that both the Avery Index and Art Abstracts/Art Index Retrospective include many journals outside the scope of architecture. Students, faculty and staff also have access to the 10 million volumes on the Berkeley campus.

Architecture strengths include history, theory and practice; housing; vernacular architecture; building science; structures and construction; green design and sustainable architecture; social factors in architectural design; architecture in developing countries; and design methods and processes. A rare book collection represents early treatises, limited editions, materials with original reproductions or fine bindings, and artists’ books, and materials from the libraries of John Galen Howard, Beatrix Farrand, Frederick Law Olmsted and F.L. Olmsted, Jr., Greene and Greene, and William Charles Hays, among others. A rare book collection of more than 4,000 volumes enriches the collection; the oldest volume in the Rare Books collection dates to 1511. Rare books are housed in a specially-equipped area in Wurster Hall. Many older books and journals that are not considered rare are in storage off campus due to lack of space and infrequent use. Even in spite of the diverse interests of students and faculty in the College, in nearly every aspect of architecture taught at UCB, library collections in architecture are collected at the research level as defined by the American Library
Association. Library card holders and UCB students, staff and faculty may request retrieval, which usually requires one or two days, excluding weekends.

The College provides the space and the University Library provides funds for staff, collections and operations. Acquisitions and cataloging are provided through centralized technical services operations at the Main Library. The University Library catalogs according to standard formats and our holdings are entered into several national catalog databases, the ten-campus on-line catalog, and the newest format of the campus catalog, OskiCat. Borrowing privileges are posted at http://www.lib.berkeley.edu/ENVI/circ.html

The Library is open to the public, but borrowing privileges are limited to UC faculty, students, staff and those holding a library card. The library is open Monday–Thursday from 9 a.m.– to 9 p.m.; Friday from 9 a.m. to 5 p.m.; and Sunday from 1 p.m. to 5 p.m.

The library is staffed with 2.3 FTE librarians (three individuals); 3 FTE library assistants; 4 FTE student assistants.

- Elizabeth Douthitt Byrne, Head Librarian / Architectural History (1 FTE)
- Deborah Sommer, Librarian / City Planning and Landscape Architecture (0.8 FTE)
- David Eifler, Librarian / Reference and Instruction Librarian (0.5 FTE)
- Dori Hsiao / Operations Manager (1 FTE)
- Matthew Prutsman / Circulation and Reserves Supervisor (1 FTE)
- Mia Jaeggli / Technical Services Workleader (1 FTE)

Elizabeth Byrne has nearly forty years of experience as a librarian, all but two in the areas of architecture, planning, and design. Deborah Sommer has more than thirty years experience as a librarian. Library staff salaries are generally very good and compare well with other units in the University. Salary schedules are available at:

http://www.lib.berkeley.edu/LHRD/la_pay.html
http://www.ucop.edu/acadadv/acadpers/tab0203/table31.html

We have three full-time library assistants (para-professionals) all college graduates. They have from 5-10 years of library experience, and are responsible for processing materials and supervising circulation, among other duties. Written job descriptions are available for all. In addition to UCB staff development programs, which are abundant, the Library makes available funds (2009/10 amount is $600, which is supplemented for librarians by the Librarians Association of UC) for all staff to attend relevant conferences, workshops, or continuing education courses.
EVALUATION AND ASSESSMENT

An increasingly large selection of electronic resources is available. The UC Berkeley Library spends more than $5 million annually on electronic resources. The budget is not broken down by subject, since so many are interdisciplinary packages of journals or multidisciplinary indexes. In addition, we share with the other nine UC campuses access to additional resources that are purchased and managed through the California Digital Library. The Environmental Design Library houses a collection of over 200,000 volumes and subscribes to over 800 serials from all over the world; the collection has grown by a net 9,000 volumes since the last APR was generated for NAAB (involving purchases and deaccessioning). In 2007-2008, 2,880 new volumes were added to the collection. In order to maintain currency, in the same year, the Library moved 3,500 volumes into storage and withdrew another 1,400 volumes. Between $30- and $50-thousand per year is available for collection development from endowments. Our collection funding has been above average for the size and depth of our programs, compared to peer institutions. The head librarian submits a book/serials budget request annually, which is reviewed by a peer committee reporting to the Associate University Librarian for Collection Development. Authority for selection and expenditure rests solely with the librarians, although faculty are consulted and encouraged to make suggestions.

Berkeley faculty and students also have access to over ten million volumes on the Berkeley campus and extensive interlibrary loan access. The Library participates in Interlibrary Borrowing and lending programs with other libraries nationwide, a service available for UCB Students, faculty and staff only. Many items not available at the UCB Libraries may be requested online or by completing forms available at the reference desk during reference hours. Most items identified in the web catalog may be requested online. In its 2007-2008 report, total use (including renewals and sweeps) for the year was given as 86,231; door count for the year was over 100,000, with a weekly average in the library of over two thousand visits.

The Library’s mission is to support the instructional and research needs of the College; its librarians work closely with the faculty to ensure that the collection meets the needs of the faculty and students, and that changes in the curriculum are reflected in the collecting policy. When new titles in a faculty member’s area of interest are procured, the librarians send notes about those citations to faculty. The Library is an important and valued resource for the Department and the College. Until a few years ago, a Library Committee has been selected each year with a faculty member from each department and one student. The new Dean is going to reconstitute this committee. This library advisory committee reviews policy decisions, and helps evaluate library services and operations. The Head of the branch communicates regularly with the College Executive Committee for a “state-of-the-library” report. We maintain a “Comments/Suggestions” button on our webpage and a suggestion book in the library to encourage comments from our users. Two of our three librarians are
assigned to work with the Architecture Department and serve as primary liaison to faculty and students to keep them apprised of library services and collections. In addition, the Library develops an annual report to the University Librarian, setting a list of goals for the year ahead, such as staff training, development or utilization of web-based resources, and facility upgrades.

At UCB, Librarians have academic ranking, excellent salaries and benefits, and written position descriptions. Elizabeth Byrne, Head and Architecture Librarian, has 40 years experience as a librarian, all but two years in architecture, planning and design. Deborah Sommer, City Planning and Landscape Architecture Librarian, has 30 years experience as a librarian, and David Eifler, has 3 years experience as a librarian. Salaries are established system-wide, but there is general agreement that library assistants are underpaid. Reference librarians routinely teach research skills to Department courses; bibliographic Instruction remained a high priority, with the librarians offering 48 course-related sessions, plus additional special sessions reaching a total of 1,490 students in academic year 2007-2008. More than 153 one-hour or longer individual research tutorials were conducted with students and faculty. Fourteen library orientation tours were given, and librarians participated directly in CED’s general and departmental Fall semester new student orientation activities. Based on an awareness of user needs that emerges from these activities, the Library also maintains and regularly updates a series of web-based research guides, which can be viewed at http://www.lib.berkeley.edu/ENVI/AllgdsI.html. Topics include:

- ADA and Universal Access
- Building Code and Regulatory Resources
- Daylighting and Lighting Design
- Professional Practice
- Thesis and Dissertation Research

The Library maintains course reserves, with over one thousand items were on course reserve in the 2007-2008 academic year; some electronic reserve items are listed directly on bSpace, an interactive course website. Generally, approximately 900 books per semester are placed on course reserve, and another 50 are on permanent reserve due to heavy use. Non-book materials, except for images, are cataloged in the online catalog. The Library has 4 self-service photocopiers including one color copier. Copiers enlarge and reduce, offering three paper sizes. The public PCs print to these copy machines. There is one scanner. For rare books, a photographic reproduction service is available. Instructions on restrictions and special handling are provided at the time of request.

Library hours were cut back across campus in Fall 2009, with the Environmental Design Library no longer open on Saturday. In October, 2009, student sit-ins protesting these shorter hours occurred elsewhere on the
campus; the administration responded by resuming a schedule of 9 a.m. to 9 p.m. each day of the week.
For more on the Environmental Design Library, go to http://www.lib.berkeley.edu/ENVI/

CED LIBRARY BUDGET, 2008-2009

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Monographs (state funds)*</td>
<td>$121,344.58</td>
<td>$88,933</td>
<td>books</td>
</tr>
<tr>
<td>Serials (state funds)</td>
<td>$51,566.00</td>
<td>$51,392</td>
<td>journals</td>
</tr>
<tr>
<td>New faculty start-up funds (state)</td>
<td>$17,335.17</td>
<td>$1,364</td>
<td>books</td>
</tr>
<tr>
<td>Replacement funds (state)</td>
<td>$5,000.00</td>
<td>$5,189</td>
<td>books &amp; journals</td>
</tr>
<tr>
<td>Donations</td>
<td>$12,075.54</td>
<td>$6,957</td>
<td>books</td>
</tr>
<tr>
<td>Endowment income</td>
<td>$44,946.25</td>
<td>$17,999</td>
<td>books &amp; journals</td>
</tr>
<tr>
<td><strong>Total, Collections</strong></td>
<td><strong>$252,267.54</strong></td>
<td><strong>$171,834</strong></td>
<td></td>
</tr>
</tbody>
</table>

| Operations Funds                       |                   |                      |              |
| Academic Staff (state)                 | $258,422.00       | $256,713             | 2.3 librarian salaries |
| Staff wages (state)                    | $123,739.00       | $122,888             | 3 staff salaries |
| Student assistants (state)             | $55,347.00        | $54,155              | 2.5FTE student wages |
| **Total, Operations**                  | **$437,508.00**   | **$433,756**         |              |

| Other                                  |                   |                      |              |
| Undesignated gift funds thru library   | $7,868.00         | $7,741                | equipment, exhibits |
| Undesignated gift funds thru college   | $4,303.00         | $12,171               | equipment, exhibits, speakers, events, books |
| **TOTAL**                              | **$701,946.54**   | **$625,502**          |              |

**NOTES:**
*Ordering was suspended for 3 months during switch to new integrated library system so all the funds in this category could not be spent.
Unspent collections funds from 08-09 were carried over to 09/10.
Supplies, Equip, Utilities, Security, Electronic resources, Phones are paid centrally and not included in the library budget

**SIGNIFICANT PROBLEMS AFFECTING THE OPERATION OR SERVICES, WITH IMPROVEMENT RECOMMENDATIONS**
The Library is also struggling to keep up with donated collections; there is a need for at least a halftime position to allow these collections to be processed in a more speedy fashion. Deferred maintenance in the building results in problems such as leaks and inefficient heating and ventilating. Custodial services, never well funded, have been cut further, and take a toll on our facility. Without additional financial support, these problems are unlikely to be addressed.
3.9.2 THE ENVIRONMENTAL DESIGN ARCHIVES

DESCRIPTION OF THE INSTITUTIONAL CONTEXT AND ADMINISTRATIVE STRUCTURE

The Environmental Design Archives houses Northern California’s premier collection of historic architecture and landscape architecture records—primary sources such as design and working drawings, photographs, correspondence, and selected artifacts. Begun in the 1950s with the acquisition of Bernard Maybeck’s personal papers and project records, for many years, faculty directors supervised acquisitions and scholarly access to the collection. In 1998, a large grant from the Getty Foundation to the College allowed the Archives to hire its first full-time professional staff and initiate the development of a professional archival program. Since then, the Environmental Design Archives’ holdings—and their accessibility to students and scholars—have increased dramatically. Archive records are not only useful for historical research, teaching and preservation, but also as examples of past and recent design processes and practices. The Archives’ own description on its web site states:

“The Environmental Design Archives holds nearly 100 collections documenting the built and landscaped environment. These records span over a century, 1890-2000, and contain primary source materials such as correspondence, reports, specifications, drawings, photographs, and artifacts. Though the archives’ primary focus is the San Francisco Bay Area, designers and projects from throughout California, the United States, and the world are found in the collections.

The archives holds the records of California’s important early architects of the First Bay Region Style (ca. 1890-1917) including John Galen Howard, Bernard Maybeck, Julia Morgan, Ernest Coxhead, and Willis Polk. … Also well documented are the Second Bay Tradition (1928-1942) originated in the works of William Wurster, Clarence Tantau, and Gardner Dailey; and the Third Bay Tradition, which flourished from the mid 1940s through the 1970s, as seen in the designs of Joseph Esherick and EHDD (Esherick, Homsey, Dodge & Davis), WBE (Wurster, Bernardi & Emmons), William Turnbull, and MLTW (Moore, Lyndon, Turnbull & Whitaker) and others.

… The Environmental Design Archives also holds the work of architectural photographers such as Phillip Fein, Roger Sturtevant, Morley Baer, Phil Palmer, Ernest Braun, Roy Flamm, Carolyn Caddes, and others.”

Waverly Lowell, who reports 50% to the Environmental Design Library and 50% to the College Dean, is the Curator of the Archives, working with Miranda Hambro, Assistant Curator. Lowell is a Fellow of the Society of American Archivists. Only the Curator’s salary is paid for with University funds; all other costs have been met with other sources of funding. This includes reference and publication fees, gifts and grants, and a portion of several endowments managed by the Department of Landscape Architecture and the College. A biannual fundraiser is held every other Spring in odd-numbered years. There are 2 FTE in the archives.
EVALUATION OF INFORMATION RESOURCES

Archives staff offers class presentations that introduce students to its holdings, policies, and services and identify materials for course assignments or research. The staff also works with faculty to locate material for instruction, research, or to coordinate students’ use of holdings. Staff will tailor orientations to a subject or objectives of a specific course. Reaching a broader community the Archives has also developed five books in a series called Berkeley / Design / Books, published in cooperation with William Stout Publishers. These are:

- Treib, Marc. The Donnel and Eckbo Gardens: Modern California Masterworks (2005)

In addition, the Archives were pivotal in the development of the forthcoming book Design on the Edge: A Century of Teaching Architecture at the University of California, Berkeley, 1903-2003, expected out at the end of the year. A manuscript for the book was used in generating sections of this report, still another example of the Archive’s contributions to our work within the Department. In conjunction with the Environmental Design Library, Archives staff also regularly curate and install exhibits in cases within the Environmental Design Library and in a small display case in the elevator lobby that acts as a foyer for the Library. These exhibits are listed in Section 3.7.3 Public Exhibitions Since 2003. The Archive staff are developing ways to expand access to these exhibitions by digitizing them, and expect to provide these work on-line; there are also plans for future, digital-only exhibitions. For more on the Archives, go to http://www.ced.berkeley.edu/cedarchives/

SIGNIFICANT PROBLEMS AFFECTING THE OPERATION OR SERVICES, WITH IMPROVEMENT RECOMMENDATIONS

The greatest challenge for the Archives is acquiring funds needed to insure staffing for reference and access. In addition, as the Collections increase in number and complexity, funding for an archivist is increasingly needed. Furthermore, the Archives will be unable to expand into the collection of electronic and digital materials with appropriate staff in place to manage the related technical requirements in this area.
3.9.3 THE VISUAL RESOURCES CENTER

The College’s Visual Resources Center holds over 82,000 digital images, over 300,000 35mm slides, and 37,000 lantern slides depicting architecture, landscapes, cities, and related material. The Visual Resources Center is focused on producing digital images for teaching and publication use. It has been regularly renamed and reorganized to reflect shifting educational needs:

“In 1964, when the College of Environmental Design moved into Wurster Hall, a separate library was formed to collect and care for these visual materials, called the Visual Aids Collection. It consisted of slide and photograph collections formerly controlled by the Environmental Design Library. In 1980, the Visual Aids Collection was renamed the Architecture Slide Library, and in 2001 was renamed, as the Architecture Visual Resources Library. In 2008, reflecting the collection’s importance to all the departments in the College, the name changed once again to be The College of Environmental Design Visual Resources Center.”54

Today, “The teaching collection is accessed primarily through the SPIRO database, which serves as a visual catalog to the slide collection as well as a portal for finding digital images. A subset of our digital collection is also available via the ARTstor digital image database.”55 Our existing digital image collection is available to the University of California community via the SPIRO website, and portions are included in other digital collections available to the faculty, including the UC Shared Images Project, ARTstor, and the California Digital Library. It would be fair to say that importance of this facility shifted significantly in the period since the last NAAB review; with inexpensive scanners making it possible for faculty and students to easily and quickly produce their own images from books and other sources, and with vast access to visual resources for teaching via the internet, demand plummeted. Staff in this area are currently undergoing reorganization, guided by the Architecture Visual Resources Library Task Force, with two individuals laid off in October 2009; services listed below may be curtailed between the writing of this document and the NAAB team visit. However, conventionally staff offered assistance in finding or creating digital images for classroom use and in creating digital images from slides or archival material, using state-of-the-art digital cameras, transparency scanners, and flatbed scanners. Scanning of material for teaching use has been free of charge for faculty in the College of Environmental Design when the material is for classroom presentation in a current or upcoming class. Scanning of material for other purposes has been subject to pricing set to offset staff time and materials. What services exist, or faculty find regretfully lost, can only be reviewed orally in Spring 2010, as these issues are currently unknown, too early in reorganization to predict. The Visual Resources Center is currently headed by Jason Miller, formerly the Library Assistant, in 2003-2005, when the site was named the Visual Resources Library; he represents 1 FTE in the Visual Resources Center.
3.9.4 OTHER VISUAL RESOURCES

FILMS AND VIDEOS

The Environmental Design Videotapes are housed in the Media Resources Center at Moffit Library; although faculty have borrowing privileges for classroom use, it is likely the remote location reduces utilization of this resource. A complete listing of the collection can be found at: http://www.lib.berkeley.edu/MRC/EnvidesignVid.html and includes videos of nearly all of the Department’s public lecture series in recent years.

ARTstor

"ARTstor is a nonprofit digital library of more than one million images in the arts, architecture, humanities, and social sciences with a suite of software tools to view, present, and manage images for research and pedagogical purposes. Community-built collections comprise contributions from outstanding museums, photographers, libraries, scholars, photo archives, and artists and artists’ estates....ARTstor is available by subscription to nonprofit organizations, and fees help to sustain the ongoing maintenance and development of the collections and software for the Digital Library."56

OTHER ON-LINE RESOURCES AVAILABLE TO FACULTY AND STUDENTS

A complete list of other Visual Resources available on-line is found at: http://www.lib.berkeley.edu/ENVI/pict.html#Internet%20Resources and includes:

- California Heritage Collection - An online archive of 28,000+ images illustrating California’s history and culture from the collections of the Bancroft Library at the University of California, Berkeley. Part of the Online Archive of California, a compilation of finding aids, or guides, to archival collections at more than 30 institutions.
- Grove Art Online (now Oxford Art Online) - Contains articles on every aspect of the visual arts - painting, sculpture, graphic arts, architecture, decorative arts and photography, from prehistory to the present day. Includes links to other related web sites.
- Online Archive of California (UC, California Digital Library), a core component of the California Digital Library, the Online Archive of California (OAC) is a digital resource providing access to manuscripts, photographs, and art. SunSite Digital Collection
### Statistics Report

#### Types of Collections

<table>
<thead>
<tr>
<th>Types of Collections</th>
<th>Number of volumes/linear feet</th>
<th>Budget year before last (2007-2008)</th>
<th>Budget last year (2008-2009)</th>
<th>Budget this year (2009-2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other books</td>
<td>113,060</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Periodical subscriptions</td>
<td>212,532</td>
<td>Library: $53,026</td>
<td>Library: $51,566</td>
<td>Library: $58,952</td>
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<tr>
<td>Other serial subscriptions</td>
<td>563 (print)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microfilm reels</td>
<td>Library: 2,103</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Microfiche</td>
<td>66,848</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Slides, 35 mm</td>
<td>Archives: 38,494</td>
<td>Library: $53,026</td>
<td>Library: $51,566</td>
<td>Library: $58,952</td>
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<td>Videos</td>
<td>Library: 475</td>
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<td>Library: $51,566</td>
<td>Library: $58,952</td>
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<td>CD-ROMs</td>
<td>Archives: 131</td>
<td>Library: $53,026</td>
<td>Library: $51,566</td>
<td>Library: $58,952</td>
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<tr>
<td>Photo-CDs</td>
<td></td>
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<td>Library: $58,952</td>
</tr>
<tr>
<td>Other electronic publications</td>
<td></td>
<td>Library: $53,026</td>
<td>Library: $51,566</td>
<td>Library: $58,952</td>
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<tr>
<td>Drawings</td>
<td>850,795 items</td>
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<td>Photographs</td>
<td>110,003 items</td>
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<td>Manuscripts</td>
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<td>Endowment funds</td>
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<td>Gifts, grants</td>
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<td>Library: $12,075</td>
<td>Library: $14,000</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>LIBRARY: $268,042</strong></td>
<td><strong>LIBRARY: $197,305</strong></td>
<td><strong>LIBRARY - $322,004</strong></td>
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#### Library Staff Expenditures (FTE)

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<thead>
<tr>
<th>Staff</th>
<th>2007/08</th>
<th>2008/09</th>
<th>2009/10</th>
<th>Budget 02/03</th>
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</thead>
<tbody>
<tr>
<td>Librarians</td>
<td>2.3FTE</td>
<td>2.3FTE</td>
<td>2.3FTE</td>
<td>$256,550**</td>
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<tr>
<td>Paraprofessionals</td>
<td>3.00FTE</td>
<td>3.00FTE</td>
<td>3.00FTE</td>
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<td>Clerks</td>
<td>0.00</td>
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<td>Student Assistants</td>
<td>4FTE</td>
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<tr>
<td>Other</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>$0</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>9.3 FTE</td>
<td>9.3 FTE</td>
<td>9.3 FTE</td>
<td>$421,799</td>
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</table>

*Includes .5 FTE Curator, Environmental Design Archives, not counted in Environmental Design Library staffing.
3.10 FINANCIAL RESOURCES

TOTAL ACTUAL EXPENDITURE AND STATE APPROPRIATIONS (IN $000S)

This information is generated from Cal Profiles. Please note: the Cal Profiles system does not break out support per graduate student. However, we list student populations in each descriptive section before the information on the program.

ARCHITECTURE

The Department of Architecture is in the College of Environmental Design. It had 25.75 budgeted FTE of permanent faculty in 2008-2009 and 26.75 actual; 538.5 undergraduates; 99.25 Masters and Professional students; and a total of 43 Doctoral students.

Architecture / Actual Expenditure and State Appropriations

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Actual expenditures</td>
<td>6,046</td>
<td>5,882</td>
<td>6,118</td>
<td>5,676</td>
<td>6,371</td>
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<td>State approp.</td>
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<td>5,394</td>
<td>5,390</td>
<td>4,971</td>
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<td>Difference</td>
<td>-541</td>
<td>-488</td>
<td>-728</td>
<td>-705</td>
<td>-851</td>
<td>-1,075</td>
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Architecture / other income sources

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<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Base operate</td>
<td>0</td>
<td>17</td>
<td>8</td>
<td>24</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Gift / endow.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Base operate</td>
<td>64</td>
<td>26</td>
<td>14</td>
<td>28</td>
<td>19</td>
<td>37</td>
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<tr>
<td>Cost recovery</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Base operate</td>
<td>131</td>
<td>132</td>
<td>78</td>
<td>183</td>
<td>267</td>
<td>464</td>
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<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Limited use</td>
<td>292</td>
<td>295</td>
<td>437</td>
<td>439</td>
<td>491</td>
<td>525</td>
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<tr>
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<tr>
<td>Limited use</td>
<td>48</td>
<td>18</td>
<td>32</td>
<td>25</td>
<td>35</td>
<td>23</td>
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<tr>
<td>Sponsored</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>
ART PRACTICES
The Department of Art Practice is in the College of Letters and Sciences. It had 5.25 budgeted FTE of permanent faculty in 2008-2009; 147.92 undergraduates; 13.50 Masters and Professional students; and no Doctoral students.

Art Practices / Actual Expenditure and State Appropriations

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual expenditures</td>
<td>1,637</td>
<td>1,766</td>
<td>1,899</td>
<td>1,831</td>
<td>2,125</td>
<td>2,203</td>
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<tr>
<td>State approp.</td>
<td>1,385</td>
<td>1,534</td>
<td>1,554</td>
<td>1,549</td>
<td>1,656</td>
<td>1,696</td>
</tr>
<tr>
<td>Difference</td>
<td>-252</td>
<td>-232</td>
<td>-305</td>
<td>-282</td>
<td>-496</td>
<td>-507</td>
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</table>

Art Practices / other income sources

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Base operate</td>
<td>13</td>
<td>33</td>
<td>36</td>
<td>32</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Gift / endow.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base operate</td>
<td>31</td>
<td>45</td>
<td>27</td>
<td>14</td>
<td>101</td>
<td>25</td>
</tr>
<tr>
<td>Cost recovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base operate</td>
<td>30</td>
<td>75</td>
<td>83</td>
<td>75</td>
<td>112</td>
<td>138</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited use</td>
<td>166</td>
<td>62</td>
<td>134</td>
<td>123</td>
<td>125</td>
<td>103</td>
</tr>
<tr>
<td>Gift /endow.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited use</td>
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<td>15</td>
<td>6</td>
<td>15</td>
<td>80</td>
<td>176</td>
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<td>Sponsored</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CITY AND REGIONAL PLANNING
The Department of City and Regional Planning is in the College of Environmental Design. It had 15.25 budgeted FTE of permanent faculty in 2008-2009; 54.25 undergraduates; 76 Masters and Professional students; and a total of 40.75 Doctoral students. Malla Hadley writes, “We have 20 ladder-rank faculty, 4 adjuncts, between 45-70 Urban Studies Major students, and one of the largest Minors on the Berkeley campus. We are also home to the Global Metropolitan Studies Designated Emphasis for doctoral students, a new program that will be launched in Spring 2010 and will have approx. 25 Ph.D. students across the campus.”57
### City and Regional Planning / Actual Expenditure and State Appropriations

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual Expenditures</th>
<th>State Appropriations</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-2005</td>
<td>2,159</td>
<td>2,002</td>
<td>-157</td>
</tr>
<tr>
<td>2005-2006</td>
<td>2,117</td>
<td>1,952</td>
<td>-165</td>
</tr>
<tr>
<td>2006-2007</td>
<td>2,140</td>
<td>1,989</td>
<td>-151</td>
</tr>
<tr>
<td>2007-2008</td>
<td>2,261</td>
<td>2,080</td>
<td>-181</td>
</tr>
<tr>
<td>2008-2009</td>
<td>2,586</td>
<td>2,464</td>
<td>-122</td>
</tr>
<tr>
<td></td>
<td>2,909</td>
<td>2,630</td>
<td>-279</td>
</tr>
</tbody>
</table>

### City and Regional Planning / other income sources

<table>
<thead>
<tr>
<th>Year</th>
<th>Base Operate</th>
<th>Gift/Endow.</th>
<th>Cost Recovery</th>
<th>Other</th>
<th>Limited Use</th>
<th>Gift/Endow.</th>
<th>Sponsored</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-2004</td>
<td>7</td>
<td>48</td>
<td>6</td>
<td>24</td>
<td>111</td>
<td>35</td>
<td>0</td>
</tr>
<tr>
<td>2004-2005</td>
<td>48</td>
<td>2</td>
<td>7</td>
<td>12</td>
<td>35</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>2005-2006</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>74</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>2006-2007</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>108</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>2007-2008</td>
<td>1</td>
<td>4</td>
<td>12</td>
<td>12</td>
<td>47</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>2008-2009</td>
<td>5</td>
<td>59</td>
<td>27</td>
<td>27</td>
<td>88</td>
<td>64</td>
<td>64</td>
</tr>
</tbody>
</table>

### CIVIL AND ENVIRONMENTAL ENGINEERING

The Department of Civil and Environmental Engineering is in the College of Engineering. It had 45 budgeted FTE of permanent faculty in 2008-2009; 389.67 undergraduates; 165.5 Masters and Professional students; and a total of 166.5 Doctoral students. The department web site notes, “Our graduate program in civil engineering was ranked #1 for the ninth year in a row by U.S. News and World Report. And this year our Environmental Engineering program was also ranked #1! Our undergraduate program in civil engineering is ranked #1 in the nation for 2010. Our undergraduate program in environmental engineering is ranked #2.”

### Civil and Environmental Engineering / Actual Expenditure and State Appropriations

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual expenditures</td>
<td>8,334</td>
<td>8,460</td>
<td>9,338</td>
<td>9,027</td>
<td>10,077</td>
<td>11,293</td>
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<tr>
<td>State Appropriations</td>
<td>7,542</td>
<td>7,893</td>
<td>8,405</td>
<td>8,232</td>
<td>9,166</td>
<td>9,951</td>
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<tr>
<td>Difference</td>
<td>-767</td>
<td>-567</td>
<td>-933</td>
<td>-795</td>
<td>-911</td>
<td>-1,342</td>
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</table>
Civil and Environmental Engineering / other income sources

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Base operate</td>
<td>128</td>
<td>151</td>
<td>149</td>
<td>166</td>
<td>157</td>
<td>356</td>
</tr>
<tr>
<td>Gift / endow.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base operate Cost</td>
<td>26</td>
<td>6</td>
<td>43</td>
<td>43</td>
<td>28</td>
<td>3</td>
</tr>
<tr>
<td>recovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base operate Other</td>
<td>95</td>
<td>-16</td>
<td>238</td>
<td>132</td>
<td>217</td>
<td>-50</td>
</tr>
<tr>
<td>Limited use</td>
<td>491</td>
<td>439</td>
<td>491</td>
<td>410</td>
<td>476</td>
<td>851</td>
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<tr>
<td>Gift / endow.</td>
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</tr>
<tr>
<td>Limited use Sponsored</td>
<td>52</td>
<td>3</td>
<td>3</td>
<td>21</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
| ENVIRONMENTAL SCIENCE, POLICY AND MANAGEMENT

The Department of Environmental Science, Policy and Management is in the College of Natural Resources. It had 18.83 budgeted FTE of permanent faculty in 2008-2009; 621.75 undergraduates; 6.5 Masters and Professional students; and a total of 181.75 Doctoral students.

Environmental Science, Policy and Management / Actual Expenditure and State Appropriations

<table>
<thead>
<tr>
<th>Actual expenditures</th>
<th>20,605</th>
<th>20,774</th>
<th>21,923</th>
<th>20,088</th>
<th>21,826</th>
<th>23,113</th>
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</thead>
<tbody>
<tr>
<td>State approp.</td>
<td>10,383</td>
<td>10,823</td>
<td>11,720</td>
<td>10,853</td>
<td>12,667</td>
<td>13,336</td>
</tr>
<tr>
<td>Difference</td>
<td>-10,222</td>
<td>-9,921</td>
<td>-10,203</td>
<td>-9,235</td>
<td>-9,159</td>
<td>-9,777</td>
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</table>

Environmental Science, Policy and Management / other income sources

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Base operate</td>
<td>84</td>
<td>49</td>
<td>72</td>
<td>49</td>
<td>38</td>
<td>57</td>
</tr>
<tr>
<td>Gift / endow.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base operate Cost</td>
<td>107</td>
<td>150</td>
<td>459</td>
<td>316</td>
<td>543</td>
<td>226</td>
</tr>
<tr>
<td>recovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base operate Other</td>
<td>47</td>
<td>24</td>
<td>27</td>
<td>166</td>
<td>192</td>
<td>137</td>
</tr>
<tr>
<td>Limited use</td>
<td>1,363</td>
<td>1,192</td>
<td>1,239</td>
<td>994</td>
<td>1,234</td>
<td>1,324</td>
</tr>
<tr>
<td>Gift / endow.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited use Sponsored</td>
<td>8,617</td>
<td>8,531</td>
<td>8,334</td>
<td>7,588</td>
<td>6,970</td>
<td>7,754</td>
</tr>
</tbody>
</table>
LANDSCAPE ARCHITECTURE

The Department of Landscape Architecture is in the College of Environmental Design. It had 9.30 budgeted FTE of permanent faculty in 2008-2009 and 10.30 actual; 41 undergraduates; 66.75 Masters and Professional students; and a total of 6 Doctoral students.

Landscape Architecture / Actual Expenditure and State Appropriations

<table>
<thead>
<tr>
<th>Actual expenditures</th>
<th>2,169</th>
<th>2,302</th>
<th>2,620</th>
<th>2,576</th>
<th>2,549</th>
<th>2,475</th>
</tr>
</thead>
<tbody>
<tr>
<td>State approp.</td>
<td>1,798</td>
<td>1,887</td>
<td>1,795</td>
<td>1,965</td>
<td>2,132</td>
<td>2,155</td>
</tr>
<tr>
<td>Difference</td>
<td>-371</td>
<td>-415</td>
<td>-1,025</td>
<td>-611</td>
<td>-414</td>
<td>-320</td>
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</table>

Landscape Architecture / other income sources

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Base operate</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>5</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Gift / endow.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base operate</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>43</td>
<td>37</td>
<td>0</td>
</tr>
<tr>
<td>Cost recovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base operate</td>
<td>7</td>
<td>17</td>
<td>47</td>
<td>-5</td>
<td>-21</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited use</td>
<td>316</td>
<td>379</td>
<td>753</td>
<td>552</td>
<td>372</td>
<td>305</td>
</tr>
<tr>
<td>Gift / endow.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited use</td>
<td>7</td>
<td>12</td>
<td>18</td>
<td>15</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Sponsored</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

From the data above it is possible to calculate the average expenditure per total full time equivalent student, including all undergraduate, graduate and PhD students. This yields a crude and somewhat misleading comparison because the data is not broken down into the actual expenditures for each category of student. For Departments like Architecture, with a large portion of undergraduates, it implies an expenditure per Masters student which is much lower than the actual. With that caveat in mind, the following list gives a rough comparison; but, more importantly, it gives a benchmark by which to judge the actions the Department and College have initiated to address the need for additional funding.

- Architecture.................................................................$9,998/FTE Student
- City and Regional Planning.............................................$14,686/FTE Student
- Landscape Architecture and Environmental Planning............$21,710/FTE Student
- Art Practice...............................................................$14,686/FTE Student
- Civil Engineering.........................................................$15,649/FTE Student
- Environmental Science Policy and Management....................$28,534/FTE Student
The Department and College have implemented the following actions to increase the funding per student in the M.Arch program:

Professional Differential Fee (when fully implemented) ................................................ $5,400/FTE Student
Summer Program Income ................................................................................................. $3,000/FTE Student
Increased Annual Fund .................................................................................................. $500/FTE Student

Total $8,900/FTE Student

Even though the $9,998/FTE Student under estimates the funding per student for the M.Arch program, as a benchmark, it is clear that the actions taken by the Department and College will greatly improve the funding per M.Arch student and should address most, if not all, the funding needs.
3.11 ADMINISTRATIVE STRUCTURE

3.11.1 INSTITUTIONAL ACCREDITATION

The University of California, Berkeley is accredited by the Western Association of Schools and Colleges. Our accreditation remains in good standing.

3.11.2 DEPARTMENT ADMINISTRATIVE STRUCTURE COMPARED

The chart below reflects conditions in November, 2009. Layoffs on 1 October, 2009 thinned staffing and a reorganization is underway that will affect the Undergraduate Student Services and Advising Staff and the Architectural Visual Resources Center, both of which are being moved to the College. The Academic Personnel position became vacant in September, 2009 and is temporarily staffed; the Financial Analyst Position became vacant in late October, 2009.
ACTUAL PERMANENT FACULTY FTE, AVERAGED OVER THE ACADEMIC YEAR

Numbers are for Full, Associate, and Assistant Professors as calculated by Cal Profiles; faculty on leave are not counted in the calculations below.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>25</td>
<td>23.75</td>
<td>23.25</td>
<td>20</td>
<td>17.78</td>
<td>20.25</td>
</tr>
<tr>
<td></td>
<td>-5%</td>
<td>-2.1%</td>
<td>-13.97%</td>
<td>-11.1%</td>
<td>+13.89%</td>
<td></td>
</tr>
<tr>
<td>Art Practices</td>
<td>5.25</td>
<td>6.25</td>
<td>3.25</td>
<td>4.25</td>
<td>5.25</td>
<td>4.00</td>
</tr>
<tr>
<td></td>
<td>+19.04%</td>
<td>-48%</td>
<td>+30.77%</td>
<td>+23.53%</td>
<td>-23.8%</td>
<td></td>
</tr>
<tr>
<td>City &amp; Reg'l Planning</td>
<td>11.75</td>
<td>11.13</td>
<td>10.75</td>
<td>10.62</td>
<td>12.00</td>
<td>12.75</td>
</tr>
<tr>
<td></td>
<td>-5.28%</td>
<td>-3.41%</td>
<td>-1.20%</td>
<td>+12.99%</td>
<td>+6.25%</td>
<td></td>
</tr>
<tr>
<td>Civil &amp; Envir. Engineering</td>
<td>37.85</td>
<td>35.52</td>
<td>39.02</td>
<td>34.44</td>
<td>34.44</td>
<td>32.90</td>
</tr>
<tr>
<td></td>
<td>-6.16%</td>
<td>+9.85%</td>
<td>-11.74%</td>
<td>0</td>
<td>-4.47%</td>
<td></td>
</tr>
<tr>
<td>Environment'l Policy /Mgmt</td>
<td>44.09</td>
<td>46.04</td>
<td>42.29</td>
<td>41.59</td>
<td>42.69</td>
<td>45.89</td>
</tr>
<tr>
<td></td>
<td>+4.42%</td>
<td>-8.15%</td>
<td>-1.66%</td>
<td>+2.64%</td>
<td>+7.50%</td>
<td></td>
</tr>
<tr>
<td>Landscape Architecture</td>
<td>10.00</td>
<td>8.67</td>
<td>9.05</td>
<td>8.55</td>
<td>7.55</td>
<td>8.30</td>
</tr>
<tr>
<td></td>
<td>+15.34%</td>
<td>+4.38%</td>
<td>-5.52%</td>
<td>-11.70%</td>
<td>+9.93%</td>
<td></td>
</tr>
</tbody>
</table>

3.11.3 OTHER DEGREE PROGRAMS OFFERED BY THE DEPARTMENT

The Department awards the following non-accredited degrees:

- Bachelor of Arts in Architecture
- Master of Architecture (one year, post-professional, not accredited)
- Master of Science in Architecture
- Master of Arts in Design
- Doctor of Philosophy (Ph.D.) in Architecture
3. The Thirteen Conditions of Accreditation
3.12 PROFESSIONAL DEGREES AND CURRICULUM

3.12.1 TITLES OF DEGREES OFFERED

The Department awards the following accredited degrees:

- Master of Architecture (three years)
- Master of Architecture (two years)

These two are discussed in the following section.

3.12.2 AN OUTLINE FOR EACH ACCREDITED DEGREE PROGRAM OF THE CURRICULUM

MASTER OF ARCHITECTURE, OPTION 3

The three-year Master of Architecture program (Option 3) is designed for those who have earned a Bachelor’s degree in a field other than architecture. The program requires completion of 72 units of coursework in six semesters of enrollment. Design is the core of the basic curriculum, and students enroll in an architectural design studio each semester. Students are required to take a minimum of 12 units per semester, or 72 units over the course of the three years, assuming two semesters of study per year. Students are allowed to take up to 12 units of elective coursework towards the M.Arch. It is assumed that students in the Option 3 program have fulfilled their general studies requirements during undergraduate study.

MASTER OF ARCHITECTURE, OPTION 2

The two-year Master of Architecture program (Option 2) is intended for students who have earned architecturally focused pre-professional degrees such as the B.A. or B.S. with a major in architecture, the B.S. in architectural studies, or the Bachelor of Environmental Design degree. The degree may be earned in two years (four semesters) with the completion of 48 units of coursework. Students are required to take a minimum of 12 units per semester, or 48 units over the course of the two years, assuming two semesters of study per year. Students are allowed to take up to 16 units of elective coursework towards the M.Arch. It is assumed that students in the Option 2 program have fulfilled some of their professional and all of their general studies requirements during undergraduate study.
MINIMUM CREDIT DISTRIBUTION

Required Courses in either Option 3 or Option 2.

The assumption is that students in Option 2 are able to waive some of these courses, as appropriate, based on prior educational experience.

Architectural Design (5 courses total in sequence, 31 units required)
• ARCH 200A (8 units) + ARCH 200B (8 units)
• ARCH 201 (5 units), Three semesters total, upon completion of 200A + B.

Final Project: Thesis (2 courses, 8-9 units required)
• ARCH 203 Final Project Preparation Seminar (3 units)
  or ARCH 281 Methods of Inquiry in Architectural Research (4 units), upon completion of two semesters of 201.
• ARCH 204 Final Project Studio: Studio Option (5 units)
  or ARCH 205 Independent Thesis Option (5 units required), upon completion of three semesters of 201 and either 203 or 281.

Architectural Method and Practices (one course from each category, 7-8 units total required)
• Professional Practices / Formerly ARCH 120-229 series (3 units); now in 207-208
• Theories and Methods / ARCH 130-239 series (3-4 units)

Architectural Sciences (one course from each category, 11-12 units required)
• Building Sciences / ARCH 140 or other course from 140-249 series (4 units)
  N.B. ARCH 140, Energy and Environmental, is a prerequisite for any other course in this series.
• Building Structures / ARCH 150 or other course from 150-259 series (4 units)
  N.B. ARCH 150, Introduction to Structures, is a prerequisite for any other course in this series.
• Construction and Materials / ARCH 160-269 series (3-4 units)
  N.B. ARCH 260, Introduction to Construction and Materials, is a prerequisite for any other course in this series.

Architectural Humanities (one course from each category, 7-8 units required)
• Social and Cultural Processes in Architecture and Urbanism / ARCH 110-219 series (3-4 units)
• History of Architecture and Urbanism / ARCH 170-279 series (4 units)
  N.B. Either ARCH 170A, or ARCH 170B, a Historical Survey of Architecture and Urbanism, is a prerequisite for any other course in this series. The first part of this sequence (170A) studies the ancient and medieval periods; the second part (170B) studies the period since 1400.

In all cases except for Design Studios, students may petition to have courses waived based on prior educational attainment. An example would be that a student with an undergraduate degree in structural engineering could request that Building Structures requirements be waived. Students are responsible for making these requests in a timely and appropriate way.

At the time of this writing, all students prepare a thesis in their final semester, although we are experimenting with new capstone alternatives in 2010. The development of a thesis project is a year-long process, with a “Thesis Prep” class (ARCH 203, Final Project Preparation Seminar: Thesis) during the Fall semester, followed

Students may elect to choose the timing of their study in each topic, although they have of late been encouraged to take a Construction and Materials or History of Architecture class in their first year of study.

### 3.12.3 CURRENT COURSES IN THE CATALOG, WITH NOTES RELATED TO 2009 CALENDAR YEAR ELECTIVES

The University requires a course to be taught at least twice before it is introduced into the course catalog; thus recently-introduced courses will generally be numbered first with a three-digit number ending with a “9.” In addition, some older courses have been renumbered recently to better reflect their subject matter.

**Architectural Method and Practices (one course from each category, 7-8 units total)**

- Professional Practices (4 units); 207-208
  - ARCH 207 Introduction to Methods and Conventions of Practice (1 unit)
  - ARCH 208 (formerly 229A) Introduction to Construction Law / Spring

- Theories and Methods / ARCH 130-239 series (3-4 units)
  - ARCH 130, Introduction to Design Theories and Methods
  - ARCH 233, Architectures of Globalization: Contested Spaces of Global Culture / Fall
  - ARCH 236, The Literature of Space / Spring
  - ARCH 237, Ulterior Speculation: Monographs & Manifestos / Fall
  - ARCH 238, The Dialectic of Poetics & Technology / Fall
  - ARCH 239, Special Topics in Architectural Design Theory & Criticism / None offered in 2009.

**Architectural Sciences (one course from each category, 9-12 units)**

- Building Sciences / ARCH 140 or other course from 140-249 series (4 units)
  - ARCH 140, Introduction to Energy and Environmental Management / prerequisite for any other course in this series / Spring
  - ARCH 142 / 242 Sustainability Colloquium / Spring
  - ARCH 144, Introduction to Acoustics / Fall
  - ARCH 240, Advanced Study: Energy and the Environment (Simulation Methods) / Spring
  - ARCH 241, Research Methods in Building Science / Spring
  - ARCH 243, Natural Cooling and Ventilation
  - ARCH 244, The Secret Life of Buildings / Fall
  - ARCH 245 Daylighting / Fall
  - ARCH 249, Special Topics: Physical Environment of Buildings
    - Spring 2009 offering: High Performance Facades
    - Fall 2009 offering: Green Studio Companion: Generative Tools for Bioclimatic Design
Building Structures / ARCH 150 or other course from 150-259 series (3-4 units)
- ARCH 150, Introduction to Structures / prerequisite for any other course in this series / Fall
- ARCH 154, Design and Computer Analysis of Structure / Spring
- ARCH 155 / 255, Structure, Construction, and Space / Fall
- ARCH 253, Seismic Design and Construction
- ARCH 255, Structure, Construction and Space (formerly 259X)
- ARCH 256, Structural Design in the Studio (formerly 259X)
- ARCH 159 / 259 Special Topics in Building Structure. None offered in 2009

Construction and Materials / ARCH 160-269 series (3-4 units)
- ARCH 160, Introduction to Construction / Spring
- ARCH 169, Special Topics in Construction & Materials. None offered in 2009
- ARCH 260, Introduction to Construction: Graduate Level / prerequisite for any other course in this series / Fall
- ARCH 264, Off-Site Fabrication / Fall
- ARCH 265, Japanese Craft and Construction
- ARCH 269, Special Topics in Construction & Materials
  Fall 2009 offering: Urban Water Seminar

Architectural Humanities (one course from each category, 6-8 units)
Social and Cultural Processes in Architecture and Urbanism / ARCH 110-219 series (3-4 units)
- ARCH 110AC, The Social and Cultural Basis of Design / Fall
- ARCH 111, Housing: An International Survey / Spring
- ARCH 119, Special Topics: Social and Cultural Basis of Design
- ARCH 211, Theory and Methods in the Social and Cultural Basis of Design
- ARCH 212, Body-Conscious Design: Shoes, Chairs, Rooms, and Beyond / Fall + Spring
- ARCH 215, Landscape/Architecture/Infrastructure/Urbanism
- ARCH 216, The Sociology of Taste in Environmental Design
- ARCH 217, Social Aspects of Housing Design: Mid-rise Urbanism
- ARCH 218, Design & Housing in the Developing World
- ARCH 219, Special Topics: Social & Cultural Basis of Design

History of Architecture and Urbanism / ARCH 170-279 series (3-4 units)
- ARCH 170A, or ARCH 170B, A Historical Survey of Architecture and Urbanism, prerequisite for any other course in this series. The first part of this sequence (170A) studies the ancient and medieval periods; the second part (170B) studies the period since 1400.
- ARCH 173, Case Studies in Modern Architecture / Fall
- ARCH C174, Architecture in Depression and War
- ARCH 176, American Architecture
- ARCH 271, Methods of Historical Research & Criticism in Architecture
- ARCH 175 / 275 Introduction to Architectural Theory, 1945 – present
- ARCH 276, Spaces of Recreation & Leisure, 1850-2000
- ARCH 277, Architecture and Memory
- ARCH 278, Visionary Architecture
• ARCH 279, Special Topics: History of Architecture
  Fall 2009 offerings: Rethinking Suburban History
  Utopias and Heterotopias
  Small Homes of the 20th Century
  Spring 2010 offerings: Histories and Theories of Urban Intervention
  Spaces of Local Development
  Traditions: The “Real”, the Hyper, the Virtual in the Built Environment

Pedagogy
• ARCH 300, Seminar in the Teaching of Architecture / Spring

M. ARCH COURSES TAUGHT BY PERMANENT FACULTY, 2007-2010

The list below shows only the permanent faculty, including one Professor Emerita on call-back, who have taught courses fulfilling NAAB Criteria during the period from Fall 2007 through Spring 2010. Continuing lecturers are listed separately afterwards. Numbers in parentheses refer to the previous course number.

* required
** primary

Alsayyad, Nezar
ARCH 111, Housing: an International Survey**
ARCH 218 (219A), Housing, Urbanization and Urbanism: Design, Planning, and Policy Issues in Developing Countries**
ARCH 271, Methods of Historical Research and Criticism in Architecture
ARCH 279, Special Topics in the History of Architecture Traditions: The “Real”; the Hyper; and the Virtual in the Built Environment
ARCH 281, Methods of Inquiry: Architectural Research

Anderson, Mark
ARCH 200B, Fundamentals of Architectural Design*
ARCH 201, Case Studies in Architectural Design-Comprehensive*
ARCH 203 (209D), Final Project Preparation Seminar: Thesis*
ARCH 204 (202A), Final Project Studio: Design Thesis*
ARCH 269, Special Topics in Construction and Materials

Benton, Cris
ARCH 140, Energy and Environment*
ARCH 244, Secret Life of Buildings
ARCH 245, Daylighting

Black, Gary
ARCH 150, Introduction to Structures*
ARCH 154, Design and Computer Analysis
ARCH 255, (259X) Structure, Construction and Space
ARCH 256, (259X) Structural Design in the Studio

Bosselmann, Peter
ARCH 209 Special Topics in Architectural Design

Bourdier, Jean-Paul
ARCH 201, Case Studies in Architectural Design*

Brager, Gail
ARCH 140, Energy and Environment*
ARCH 241, Research Methods in Building Science
ARCH 242 (249), Sustainability Colloquium
ARCH 243, Natural Cooling and Ventilation
ARCH 281, Methods of Inquiry: Architectural Research

Buntrock, Dana
ARCH 260, Introduction to Construction: Graduate Level*
ARCH 264, Offsite Fabrication
ARCH 265, Japanese Craft and Construction
ARCH 300, Seminar in the Teaching of Architecture

Castillo, Greg
ARCH 170B, History: Survey of Architecture and Urbanism *
ARCH 173, Case Studies in Modern Architecture

Cenzatti, Marco
ARCH 179/279, Special Topics in Architectural History: Spaces of Local Development
ARCH 179/279, Special Topics in Architectural History: Utopias and Heterotopias

Choksumbatchai, Raveevarn
ARCH 201, Case Studies in Architectural Design*
3. The Thirteen Conditions of Accreditation
Shanken, Andrew
ARCH 170A History: Survey of Architecture and Urbanism*
ARCH C174 Architecture in Depression and War
ARCH 176 American Architecture
ARCH 271 Methods of Historical Research and Criticism in Architecture
ARCH 277 Architecture and Memory
ARCH 300 Seminar in Teaching of Architecture

Stoner, Jill
ARCH 136/236 Literature of Space
ARCH 201 Case Studies in Architectural Design-Comprehensive*
ARCH 203 (209D) Final Project Preparation Seminar: Thesis*
ARCH 204 (202A) Final Project Studio: Design Thesis*

Ubbelohde, Susan
ARCH 201 Case Studies in Architectural Design-Comprehensive*
ARCH 203 (209D) Final Project Preparation Seminar: Thesis*
ARCH 204 (202A) Final Project Studio: Design Thesis*
ARCH 238 (209A) Dialectic of Poetics and Technology: Kahn
ARCH 238 (209A) The Dialectics of Poetics and Technology: LeCorbusier
ARCH 249 Special Topics in the Physical Environment of Buildings: High Performance Facades

M.ARCH COURSES TAUGHT BY CONTINUING LECTURERS AND ADJUNCTS 2007-2010

The list below shows only the Continuing Lecturers and Adjuncts who have taught courses fulfilling NAAB Criteria during the period from Fall 2007 through Spring 2010.

Creedon, Roddy
ARCH 200A, Fundamentals of Architectural Design*
ARCH 200B, Fundamentals of Architectural Design*

Huizenga, Charles
ARCH 240, Advanced Study: Energy and Environment

Salter, Charles
ARCH 144 (149A), Introduction to Acoustics

Sharafian, Steven
ARCH 208 (229A), Introduction to Construction Law**

3.12.4 CONCURRENT DEGREE PROGRAMS STUDENTS MAY ELECT TO PURSUE

One of the small ways that our educational diversity is expressed is through choice in established concurrent degree programs. These are further described below, but are:

- Structural Engineering (Master of Architecture | Master of Science)
- Building and Site Design (Master of Architecture | Master of Landscape Architecture)
- City and Regional Planning (Master of Architecture | Master of City Planning)
- International and Area Studies (Master of Architecture or Ph.D. in Architecture | Master of Arts)

Although not available at this time, there is an intention to expand the Designated Emphasis (DE) in New Media available at the Ph.D. level to M.Arch and M.S. students in the future. There is also interest in a concurrent M.S./M.Arch degree program, but because of University policy, it would be far from easy to offer two concurrent degrees from a single department. We are also working on developing an interdisciplinary
graduate certificate in Sustainable Design. The full curricula of these programs have not been included below, but may be reviewed at:
http://arch.ced.berkeley.edu/programs/concurrent#mla

STRUCTURAL ENGINEERING (MASTER OF ARCHITECTURE | MASTER OF SCIENCE)
The complexity of modern structures requires the design and supervision of both architects and structural engineers. The growing inter-reliance of these two disciplines creates a demand for professionals capable of viewing a possible structure both as an architect and as a structural engineer. The concurrent M.Arch and M.S. Structural Engineering program offered by the Department of Architecture and the Department of Civil and Environmental Engineering, Division of Structural Engineering, Mechanics, and Materials enables students to obtain this valuable combination of professional disciplines with up to 24 fewer units than if the two degrees were pursued separately.

Admissions
Applicants to the concurrent program are expected to hold the B.S. degree in Civil and Environmental Engineering. Exceptions may be made for students with architecture degrees with a minor in civil engineering, or for students who have completed substantial course work in civil engineering.

BUILDING AND SITE DESIGN (MASTER OF ARCHITECTURE | MASTER OF LANDSCAPE ARCHITECTURE)
The concurrent program in Building and Site Design seeks to combine knowledge of ecological and social factors with the design of buildings and sites. This program is intended for exceptionally qualified students who have either an undergraduate degree (B.A. or B.S.) or a professional undergraduate degree (B.Arch. or B.L.A.) in architecture or landscape architecture and who satisfy the admission requirements for either the two-year M.Arch. or M.L.A. program. Admission to the concurrent degree program is contingent upon the applicant showing that he or she will be able to successfully complete the requirements for both degrees within three years.

Prerequisites
The following courses or their equivalents are required for admission to the concurrent degree program. Students without this background will be required to take these courses for elective credit.

LD ARCH 112, Landscape Plants and Horticulture
LD ARCH 120, Topographic Form and Design Technology
LD ARCH 110, Ecological Analysis
ARCH 150,* Introduction to Structures

*Physics and calculus are prerequisites for this course and must be taken prior to enrollment in the concurrent degree program.
CITY AND REGIONAL PLANNING (MASTER OF ARCHITECTURE | MASTER OF CITY PLANNING)

The Departments of Architecture and City and Regional Planning offer a concurrent degree program for exceptionally well-qualified students who hold the five-year Bachelor of Architecture degree or a four-year bachelor of arts/bachelor of science degree in architecture, as well as those who have completed equivalent degrees in related disciplines. The program aims to combine the study of urban and planning issues with the design of buildings and sites. By providing a range of essential skills as well as a broad understanding of the social, economic, and natural factors that shape the physical environment, the concurrent degree program in architecture and city planning accomplishes what neither program achieves alone. This program allows completion of the Master of Architecture and the Master of City Planning degrees with a savings of 12 units (one semester’s course work).

INTERNATIONAL AND AREA STUDIES
(MASTER OF ARCHITECTURE OR PH.D. IN ARCHITECTURE | MASTER OF ARTS)

The concurrent M.A. program in International and Area Studies (IAS) is designed to complement the graduate degree programs in architecture, allowing graduate students who combine advanced professional training with a detailed knowledge of contemporary international issues or particular world areas or countries. In addition to satisfying all Graduate Division and departmental requirements for the Master of Architecture or Ph.D. degrees, students in this concurrent program must complete a minimum of 24 units outside architecture in the special area agreed upon with the IAS adviser. The content of each M.A. program will be shaped in consultation with the departmental IAS adviser to meet the specific needs and interests of the individual student.

3.12.5 OFF-CAMPUS PROGRAM

DANISH INTERNATIONAL STUDIES ARCHITECTURE DESIGN AND FURNITURE DESIGN PROGRAM

A summer program affiliated with the Danish International Studies Architecture Design and Furniture Design Program is offered in Copenhagen, Denmark. We have offered this option for ten years. This is a seven-week residential studio design program. The architectural design studio is comprised of two major projects: one conducted as a set of case studios of major design projects in Scandinavia and the second the design of a facility currently under consideration by the City of Copenhagen. The furniture design studio is limited to six participants. Both build on the tradition of "making" the details of space celebrated in most Scandinavian architecture. Each project involves consideration of program, context, alternatives, a solution, and formal
presentations. There are also two major study tours, one to Sweden and Finland and one to Western Denmark. These comprise roughly two weeks of the program. In addition, several days are spent in and around Copenhagen visiting many important architecture and interior architecture sites. Students receive five units of studio credit (either ARCH 101 / undergraduate or ARCH 201 / graduate). In addition, they receive three units of credit for a survey course on Scandinavian architecture that can be used to complete program requirements or electives. The program fee provides all instruction, travel in Scandinavia, accommodation, and some meals while on study-tour, housing in Copenhagen, admission fees, and transportation expenses if they are needed to have access by public transportation to the DIS Study Center. Students have the option of living in a dorm setting with other students from the program and Danish students studying at universities in the Copenhagen area or a home-stay with a Danish family. Students are responsible for air transportation from and to the USA, some meals, and spending money. More on this program can be seen at http://www.ced.berkeley.edu/departments-programs/arch/denmark-summer-study.htm
3.13 STUDENT PERFORMANCE CRITERIA

OVERVIEW OF CURRICULAR GOALS AND CONTENT

Our program develops our students’ abilities to conceive and accurately describe appropriate built spaces at several scales, to help them to learn the processes that can be used to bring building into place, and to provide a basis for understanding the consequences that complexes of buildings and open spaces have for their inhabitants, for society, and for the environment. The goal of program is the education of architects and scholars who contribute to the practice and discipline of architecture and to the development of a humane built environment. We recognize that the critical and creative process of design is inseparable from history, social purpose, environmental setting, and building process. This recognition strengthens our commitment to excellence in design. During the review period, students admitted to the professional program leading to the Master of Architecture degree have been given the opportunity to integrate those concerns with design through a breadth of required courses in five program areas: Architectural Design, Architectural Methods and Practices, Architectural Sciences, Architectural Humanities and Thesis.

Within Architectural Design, the program has two semesters of introductory design (ARCH 200A and ARCH 200B- Fundamentals of Architectural Design) and three semesters of advanced design (ARCH 201 Comprehensive and two ARCH 201-Case Studies in Architectural Design.) ARCH 200A is the first introductory course in architectural design and theories for graduate students. The course emphasizes the major formal, spatial, material, tectonic, technological, and environmental determinants of building form. ARCH 200B is the second introductory course in architectural design and theories, emphasizing the major social, cultural, contextual, and legal influences on building form. ARCH 201 Comprehensive Studios are advanced studios focused on application and integration of program with structural and environmental systems, building envelope systems, life-safety provisions, wall sections and building assemblies and the principles of sustainability. ARCH 201s are the advanced design studios that deal with specific topics such as housing, public and institutional buildings, and local or international community development. Taken as a whole, the sequence covers many of the student performance criteria from critical thinking and representation to integrated building practices.
Within Architectural Methods & Practices, there are the sub-areas of Professional Practices and Theories & Methods. In Professional Practice, students learn about the complexity of the building industry and the legal, political, and regulatory context in which construction projects are accomplished, the roles, responsibilities, ethics, and mores of the design professional within a capitalistic economic system. The area emphasizes developing and honing many of the analytical, ethical, and business skills necessary to a successful and responsible professional practice. Theories & Methods is an interdisciplinary area of study of the theoretical foundations of designing objects, buildings, and environments. It investigates the cognitive processes that designers use when they explore, generate and evaluate possible ways to meet the goals these objects and environments ought to accomplish, and the methods they use to explore, develop, and communicate their solutions. Theories & Methods is concerned with questions such as: What is Design? How is it done? What mental and cognitive processes guide it? What knowledge do designers rely upon? What methods can they use to obtain reasonable solutions to design problems within a given resource framework (time, money, etc.)? What methods and theories that were developed in other disciplines are relevant to design (e.g., computer science, cognitive science, engineering, social sciences, etc.)? How can they be adapted to design problems? Common to all these inquiries is architectural design, which is unique in that it provides a very rich domain of investigation and poses problems whose solution relies upon judgment, creativity, and integration of a multitude of cognitive skills. The assumption underlying the teaching in this area is that ultimately the answers to all these questions will form a coherent theory of design, and the basis for tools and techniques applicable in the practice of design in many disciplines.

Within Architectural Sciences are the sub-areas of Building Sciences, Building Structures and Construction & Materials. Building Sciences cover environmental quality in buildings and ways of producing desirable environments in an energy- and resource-efficient manner. The environmental attributes studied (thermal, luminous, air quality, acoustic) are taught as having both physical and psychological dimensions. The intellectual objective of building science courses is uncovering the processes by which a building affects its occupants, evaluating the human/economic/energy consequences of the effects, and incorporating this knowledge in new procedures to design more acceptable buildings. Building Structures covers the study of forces, materials, and structural significance in the design of buildings. Two goals are to help students understand structural issues as they relate to design and to help them become comfortable with structural concepts so that they can begin to integrate the structure and architecture. This introduction to the materials and processes of construction takes architecture from design to realization. In Construction and Materials, students learn about material and construction choices available, about how materials are conventionally and exceptionally used. By observing construction, they learn how design decisions affect the size of materials, connections, and where they are assembled.
Within Architectural Humanities are the sub-areas of Social and Cultural Processes in Architecture & Urbanism and the History of Architecture & Urbanism. Social and Cultural Processes is devoted to the description and analysis of the relation between social organization and built form, and a professional practice founded on aiding designers in the building process, emphasizing on programming and evaluation research. In both its theoretical and applied aspects this area includes all scales (object, room, building, outdoor spaces) and employs theories and techniques from a wide range of disciplines. The courses emphasize the processes by which the meaning of the environment is constructed. Methods include systematic observation, interviewing, questionnaires, photo-elicitation, participant-observation, content analysis, and semantic ethnography.

The History of Architecture is concerned with the evolution of the entire cultural and urban landscape, including the work of architects, landscape architects and planners, but also with builders, craftspeople, and the ordinary men and women who create the human environment.

**Thesis** is a two-semester sequence in which each student develops an individual architectural thesis that is explored through design beginning in the Fall semester and continuing through the Spring. The thesis is intended to develop variety of inquiry modes – inductive, deductive, and most importantly, design – at an advanced level toward the definition of a thesis proposal and development of a thesis project. Students define their thesis objectives and significance, the domain in which they see their work contributing, architectural propositions that address the objectives, and metrics by which their designs can be assessed.

**ASSESSING STUDENT PROGRESS WITH PERFORMANCE CRITERIA**

While the courses that fulfill the sub-area requirements are structured in a way that requires every student to fulfill all 34 performance criteria, each student also has a checklist to monitor his or her progress and to better understand the minimum requirements to internship. This checklist is kept as part of their individual graduate record.

**CREDIT FOR COURSES TAKEN AT OTHER INSTITUTIONS**

For students seeking credit for courses they have taken at other institution to fulfill their sub-area requirements, they must get approval from a faculty member who teaches in that sub-area, from their Graduate Advisor, and from the Chair of Graduate Advisors. A sub-area faculty member typically requests syllabus material from the other institution for review – some faculty even give quizzes. If the course is equivalent and fulfills the same NAAB Performance Criteria, the student is given a waiver. The graduate office keeps an on-going record of courses and institutions for which faculty have given waivers to determine credit for incoming students into the Option 2 program (4 + 2 program.)
To better understand the following course matrices, it helps to understand the number code:

**Department of Architecture Course Numbering System**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-106</td>
<td>Design (Upper Division Undergraduate)</td>
</tr>
<tr>
<td>200-206</td>
<td>Design (Graduate)</td>
</tr>
<tr>
<td>107-108</td>
<td>Professional Practices (Upper Division Undergraduate)</td>
</tr>
<tr>
<td>207-208</td>
<td>Professional Practices (Graduate)</td>
</tr>
<tr>
<td>109</td>
<td>Design Seminar (Upper Division Undergraduate)</td>
</tr>
<tr>
<td>209</td>
<td>Design Seminar (Graduate)</td>
</tr>
<tr>
<td>110-119</td>
<td>Social and Cultural Processes in Architecture &amp; Urbanism (Upper Division Undergraduate)</td>
</tr>
<tr>
<td>210-219</td>
<td>Social and Cultural Processes in Architecture &amp; Urbanism (Graduate)</td>
</tr>
<tr>
<td>130-139</td>
<td>Theories and Methods (Upper Division Undergraduate)</td>
</tr>
<tr>
<td>230-239</td>
<td>Theories and Methods (Graduate)</td>
</tr>
<tr>
<td>140-149</td>
<td>Building Sciences (Upper Division Undergraduate)</td>
</tr>
<tr>
<td>240-149</td>
<td>Building Sciences (Graduate)</td>
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<tr>
<td>150-159</td>
<td>Building Structures (Upper Division Undergraduate)</td>
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<td>250-259</td>
<td>Building Structures (Graduate)</td>
</tr>
<tr>
<td>160-169</td>
<td>Construction and Materials (Upper Division Undergraduate)</td>
</tr>
<tr>
<td>260-269</td>
<td>Construction and Materials (Graduate)</td>
</tr>
<tr>
<td>170-179</td>
<td>History of Architecture and Urbanism (Upper Division Undergraduate)</td>
</tr>
<tr>
<td>270-279</td>
<td>History of Architecture and Urbanism (Graduate)</td>
</tr>
<tr>
<td>300-301</td>
<td>Graduate Teaching Seminars</td>
</tr>
</tbody>
</table>

### 3.13.1 MATRIX 1- REQUIRED COURSES

In our program, some sub-areas have a course that serves as pre-requisite prior to taking other courses in the sub-area. These include Design, Building Sciences, Building Structures, Construction and Materials and History. In these cases, the required course is listed in the matrix. In the other areas, Professional Practices, Theories and Methods and Social and Cultural Processes, students may choose from a variety of courses to both fulfill their sub-area requirement and their NAAB Performance Criteria. Thus all the courses that students take to fulfill that criteria are listed.

A highlighted cell in the matrix indicates the course with the greatest evidence of achievement for a particular criterion. A black square indicates one of several courses that can be taken to fulfill a performance criterion. And a grey square indicates other criteria that are also met with each class.
### MATRIX 1.1. Required Courses

| Course Code | Course Title | Credits | Required
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**UNIVERSITY OF CALIFORNIA, BERKELEY**
**College of Environmental Design, Department of Architecture**
**ARCHITECTURE PROGRAM REPORT 2009**
**MASTER OF ARCHITECTURE DEGREE**

3. **The Thirteen Conditions of Accreditation**

203
### MATRIX 1.2. Required Courses – Arch 201

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch 201</td>
<td>Calculus and Analytic Geometry</td>
<td>3</td>
</tr>
<tr>
<td>Arch 202</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>Arch 203</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Arch 204</td>
<td>Modern Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Arch 205</td>
<td>Real and Complex Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Arch 206</td>
<td>Advanced Calculus</td>
<td>3</td>
</tr>
<tr>
<td>Arch 207</td>
<td>Advanced Linear Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note:** Each course is essential for fulfilling the requirements for the Master of Architecture degree.
3.13.2 MATRIX 2 - ELECTIVE COURSES AND THE PERFORMANCE CRITERIA

FULFILLED

Our program has a wealth of courses in addition to the fundamentals. The second matrix includes additional courses taught in the review period and the performance criteria that they fulfill, showing a multitude of ways that students learn the fundamentals of professional practice.
### Matrix 2.1: Electives

<table>
<thead>
<tr>
<th>COURSE NO. (UC)</th>
<th>COURSE NO. (AIA)</th>
<th>COURSE TITLE</th>
<th>INSTRUCTOR NAME</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-130A</td>
<td>01-130A</td>
<td>American Cultural Landscapes, 1900-800</td>
<td>Great</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-130B</td>
<td>01-130B</td>
<td>American Cultural Landscapes, 1900-1950</td>
<td>Great</td>
<td>Spring 09</td>
</tr>
<tr>
<td>01-140A</td>
<td>01-140A</td>
<td>Introduction to Acoustics</td>
<td>Lake</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-150A</td>
<td>01-150A</td>
<td>Design and Computer Analysis</td>
<td>Black</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-160A</td>
<td>01-160A</td>
<td>Case Studies in Modern Architecture</td>
<td>Catlin</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-170A</td>
<td>01-170A</td>
<td>Special Topics: Digital Forensics and Computer Controlled Monitoring</td>
<td>Axel</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-180A</td>
<td>01-180A</td>
<td>Principles of Architecture</td>
<td>Eliza</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-190A</td>
<td>01-190A</td>
<td>Special Topics: Domestic Architecture</td>
<td>Eliza</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-200A</td>
<td>01-200A</td>
<td>Special Topics: Architectural Design</td>
<td>Eliza</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-210A</td>
<td>01-210A</td>
<td>The Literature of Space</td>
<td>Steiner</td>
<td>Spring 09</td>
</tr>
<tr>
<td>01-220A</td>
<td>01-220A</td>
<td>Urban / Suburban: Monographs and Manifestos</td>
<td>Frank</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-230A</td>
<td>01-230A</td>
<td>Non-Civil Engineering</td>
<td>Berger</td>
<td>Spring 09</td>
</tr>
<tr>
<td>01-240A</td>
<td>01-240A</td>
<td>Special Topics: Social/Cultural Buildings</td>
<td>Benham</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-250A</td>
<td>01-250A</td>
<td>Special Topics: Sustainable Design and Construction</td>
<td>Borch</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-260A</td>
<td>01-260A</td>
<td>Special Topics: Urban/Water Seminar</td>
<td>Anderson</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-270A</td>
<td>01-270A</td>
<td>Methods of Inquiry: Architectural Research</td>
<td>Almagor</td>
<td>Fall 09</td>
</tr>
<tr>
<td>01-280A</td>
<td>01-280A</td>
<td>Seminar in Architectural History</td>
<td>Borch</td>
<td>Fall 09</td>
</tr>
</tbody>
</table>
For the purpose of accreditation, graduating students must demonstrate understanding or ability in the following areas:

3.13.1. Speaking and Writing Skills
Ability to read, write, listen, and speak effectively
While a wealth of courses fulfills this requirement, ARCH 203 and 204, the thesis sequence, are the courses in which students’ ability shows the greatest evidence of achievement.

3.13.2. Critical Thinking Skills
Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards
While a wealth of courses fulfills this requirement, ARCH 203 and 204, the thesis sequence, are the courses in which students’ ability shows the greatest evidence of achievement.

3.13.3. Graphics Skills
Ability to use appropriate representational media, including freehand drawing and computer technology, to convey essential formal elements at each stage of the programming and design process
While a wealth of courses fulfills this requirement, ARCH 203 and 204, the thesis sequence, are the courses in which students’ ability shows the greatest evidence of achievement. All the design studios emphasize this area as well as our digital design courses.

3.13.4. Research Skills
Ability to gather, assess, record, and apply relevant information in architectural coursework.
While a wealth of courses fulfills this requirement, ARCH 203 and 204, the thesis sequence, are the courses in which students’ ability shows the greatest evidence of achievement. In addition, ARCH 233 and the history seminars are cited as being critical to developing the ability for research.

3.13.5. Formal Ordering Systems
Understanding of the fundamentals of visual perception and the principles and systems of order that inform two- and three-dimensional design, architectural composition, and urban design
This criterion is introduced in ARCH 200A and ARCH 200B for incoming students without prior experience in architecture and advanced in the ARCH 201 studios. In particular, the ARCH 201 Comprehensive Design Studio shows the greatest evidence of achievement.

3.13.6. Fundamental Design Skills
Ability to use basic architectural principles in the design of buildings, interior spaces, and sites
This criterion is introduced in ARCH 200A and ARCH 200B for incoming students without prior experience in architecture and advanced in the ARCH 201 studios. In particular, the ARCH 201 Comprehensive Design Studio shows the greatest evidence of achievement.

3.13.7. Collaborative Skills
Ability to recognize the varied talent found in interdisciplinary design project teams in professional practice and work in collaboration with other students as members of a design team
While many courses fulfill this requirement, ARCH 140, Energy and the Environment, covers both the recognition of interdisciplinary design and requires students to collaborate as member of a design team.

3.13.8. Western Traditions
Understanding of the Western architectural canons and traditions in architecture, landscape and urban design, as well as the climatic, technological, socioeconomic, and other cultural factors that have shaped and sustained them
For this criterion, we have several course that students can choose from, in the sub-areas of Theories & Methods as well as in History. These courses include: ARCH 111- Housing An International Survey; ARCH 217- Mid-Rise Urbanism; ARCH 218- Housing Urbanization & Urbanism in Developing Countries, ARCH 233- Architectures of Globalization; and ARCH 238- The Dialectics of Poetics and Technology.

3.13.9. Non-Western Traditions
Understanding of parallel and divergent canons and traditions of architecture and urban design in the non-Western world
For this criterion, we have several course that students can choose from, in the sub-areas of Theories & Methods as well as in History. These courses include: ARCH 111- Housing An International Survey; ARCH 217- Mid-Rise Urbanism; ARCH 218- Housing Urbanization & Urbanism in Developing Countries, ARCH 233- Architectures of Globalization; and ARCH 238- The Dialectics of Poetics and Technology.

3.13.10. National and Regional Traditions
Understanding of national traditions and the local regional heritage in architecture, landscape design and urban design, including the vernacular tradition
For this criterion, we have several course that students can choose from, in the sub-areas of Theories & Methods as well as in History. These courses include: ARCH 111- Housing And International Survey; ARCH 217- Mid-Rise Urbanism; ARCH 218- Housing Urbanization & Urbanism in Developing Countries, ARCH 233- Architectures of Globalization; and ARCH 238- The Dialectics of Poetics and Technology.

3.13.11. Use of Precedents

Ability to incorporate relevant precedents into architecture and urban design projects

While a wealth of courses fulfills this requirement, ARCH 203 and 204, the thesis sequence, are the courses in which students’ ability shows the greatest evidence of achievement.


Understanding of the theories and methods of inquiry that seek to clarify the relationship between human behavior and the physical environment

For this criterion, we have several course that students can choose from, in the sub-areas of Theories & Methods as well as in History. These courses include: ARCH 110AC- Social and Cultural Factors in Design; ARCH 111- Housing And International Survey; ARCH 211- Theory & Methods in the Social and Cultural Basis of Design; ARCH 212- Body Conscious Design; ARCH 215- Landscape/ Architecture/ Infrastructure/ Urbanism; ARCH 217- Mid-Rise Urbanism; and ARCH 218- Housing Urbanization & Urbanism in Developing Countries.

3.13.13. Human Diversity

Understanding of the diverse needs, values, behavioral norms, physical ability, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity for the societal roles and responsibilities of architects

For this criterion, we have several course that students can choose from, in the sub-areas of Theories & Methods as well as in History. These courses include: ARCH 110AC- Social and Cultural Factors in Design; ARCH 111- Housing And International Survey; ARCH 211- Theory & Methods in the Social and Cultural Basis of Design; ARCH 212- Body Conscious Design; ARCH 215- Landscape/ Architecture/ Infrastructure/ Urbanism; ARCH 217- Mid-Rise Urbanism; and ARCH 218- Housing Urbanization & Urbanism in Developing Countries.


Ability to design both site and building to accommodate individuals with varying physical abilities

An understanding of the issues around accessibility are introduced both in ARCH 260- Introduction to Construction and in ARCH 200B for design integration. ARCH 201- Comprehensive Design Studio is the course in which students’ ability shows the greatest evidence of achievement.

3.13.15. Sustainable Design

Understanding of the principles of sustainability in making architecture and urban design decisions that conserve natural and built resources, including culturally important buildings and sites, and in the creation of healthful buildings and communities

We have many courses that more than fulfill this criterion, with a great emphasis of our program on more than just an understanding of the principles of sustainability – resource and cultural – but on the ability to design better environments. The course in which the students show the greatest evidence of understanding the principles of sustainable design is ARCH 140- Energy & Environment.

3.13.16. Program Preparation

Ability to prepare a comprehensive program for an architectural project, including assessment of client and user needs, a critical review of appropriate precedents, an inventory of space and equipment requirements, an analysis of site conditions, a review of the relevant laws and standards and assessment of their implication for the project, and a definition of site selection and design assessment criteria

While many courses fulfill this requirement, ARCH 203 and 204, the thesis sequence, are the courses in which students’ ability shows the greatest evidence of achievement.

3.13.17. Site Conditions

Ability to respond to natural and built site characteristics in the development of a program and the design of a project

An understanding of the design issues around site conditions are introduced both in ARCH 200A and 200B- Fundamentals of Architectural Design. ARCH 201- Comprehensive Design Studio is the course in which students’ ability shows the greatest evidence of achievement.

3.13.18. Structural Systems

Understanding of principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems

This criterion is taught in ARCH 150- Introduction to Structures and integrated in all design studios.
3.13.19. Environmental Systems
Understanding of the basic principles and appropriate application and performance of environmental systems, including acoustical, lighting, and climate modification systems, and energy use, integrated with the building envelope.
The course in which the students show the greatest evidence of understanding the principles of environmental systems is ARCH 140- Energy & Environment.

3.13.20. Life Safety
Understanding of the basic principles of life-safety systems with an emphasis on egress
The course in which the students show the greatest evidence of understanding the principles of life-safety and egress is ARCH 260- Introduction to Construction. Students also cover this criterion in ARCH 201- Comprehensive Design Studio.

Understanding of the basic principles and appropriate application and performance of building envelope materials and assemblies
The course in which the students show the greatest evidence of understanding the principles of building envelope systems is ARCH 140- Energy & Environment. Students also cover this criterion in ARCH 201- Comprehensive Design Studio.

3.13.22. Building Service Systems
Understanding of the basic principles and appropriate application and performance of plumbing, electrical, vertical transportation, communication, security, and fire protection systems
The course in which the students show the greatest evidence of understanding the principles of building service systems is ARCH 260- Introduction to Construction. Students also cover this criterion in ARCH 201- Comprehensive Design Studio.

3.13.23. Building Systems Integration
Ability to assess, select, and conceptually integrate structural systems, building envelope systems, environmental systems, life-safety systems, and building service systems into building design
ARCH 201- Comprehensive Design Studio is the course in which students’ ability shows the greatest evidence of achievement and this is covered in many of the advanced design studios, ARCH 201- Case Studies in Architectural Design.

3.13.24. Building Materials and Assemblies
Understanding of the basic principles and appropriate application and performance of construction materials, products, components, and assemblies, including their environmental impact and reuse
The course in which the students show the greatest evidence of understanding the principles of building materials and assembly is ARCH 260- Introduction to Construction. Students also cover this criterion in ARCH 201- Comprehensive Design Studio.

3.13.25. Construction Cost Control
Understanding of the fundamentals of building cost, life-cycle cost, and construction estimating
The course in which the students show the greatest evidence of understanding the fundamentals of construction cost control is ARCH 260- Introduction to Construction.

Ability to make technically precise drawings and write outline specifications for a proposed design
This criterion is introduced in ARCH 200A for incoming students without prior experience in architecture and advanced in the ARCH 201 studios. In particular, the ARCH 201 Comprehensive Design Studio shows the greatest evidence of achievement.

3.13.27. Client Role in Architecture
Understanding of the responsibility of the architect to elicit, understand, and resolve the needs of the client, owner, and user
For this criterion, we have several courses that students can choose from in the subarea of Professional Practices: ARCH 207- Introduction to Methods and Conventions of Practice and ARCH 208- Introduction to Construction Law.

3.13.28. Comprehensive Design
Ability to produce a comprehensive architectural project based on a building program and site that includes development of programmed spaces demonstrating an understanding of structural and environmental systems, building envelope systems, life-safety provisions, wall sections and building assemblies and the principles of sustainability
ARCH 201 Comprehensive Design Studio shows the greatest evidence of achievement.

3.13.29. Architect’s Administrative Roles
Understanding of obtaining commissions and negotiating contracts, managing personnel and selecting consultants, recommending project delivery methods, and forms of service contracts
For this criterion, we have several courses that students can
choose from: ARCH 208-Introduction to Construction Law; and ARCH 260-Introduction to Construction where students show the greatest achievement.

3.13.30. Architectural Practice
Understanding of the basic principles and legal aspects of practice organization, financial management, business planning, time and project management, risk mitigation, and mediation and arbitration as well as an understanding of trends that affect practice, such as globalization, outsourcing, project delivery, expanding practice settings, diversity, and others

For this criterion, we have several courses that students can choose from: ARCH 208-Introduction to Construction Law; and ARCH 260-Introduction to Construction where students show the greatest achievement.

3.13.31. Professional Development
Understanding of the role of internship in obtaining licensure and registration and the mutual rights and responsibilities of interns and employers

For this criterion, we have several courses that students can choose from: ARCH 208-Introduction to Construction Law; and ARCH 260-Introduction to Construction where students show the greatest achievement.

3.13.32. Leadership
Understanding of the need for architects to provide leadership in the building design and construction process and on issues of growth, development, and aesthetics in their communities

For this criterion, we have several courses that students can choose from in the subarea of Professional Practices: ARCH 207-Introduction to Methods and Conventions of Practice and ARCH 208-Introduction to Construction Law.

3.13.33. Legal Responsibilities
Understanding of the architect’s responsibility as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, historic preservation laws, and accessibility laws

For this criterion, we have several courses that students can choose from in the subarea of Professional Practices: ARCH 207-Introduction to Methods and Conventions of Practice and ARCH 208-Introduction to Construction Law.

3.13.34. Ethics and Professional Judgment
Understanding of the ethical issues involved in the formation of professional judgment in architectural design and practice

For this criterion, we have several courses that students can choose from in the subarea of Professional Practices: ARCH 207-Introduction to Methods and Conventions of Practice and ARCH 208-Introduction to Construction Law.
NOTES AND REFERENCES

3 From http://www.berkeley.edu/news/features/nobel/
10 http://internationaloffice.berkeley.edu/multiple_use/enrollment_data.php
11 Ibid.
12 http://www.universityofcalifornia.edu/aboutuc/mission.html
13 Davids, René. “Xochimilco Archeological Museum and Botanical Garden: The Mexico City Studio,” Frameworks, no. 7 (Fall 2007) p. 28
14 For more on this class, including examples of student work, see http://arch.ced.berkeley.edu/courses/sp08/arch201/front-page2.html
15 http://www.ced.berkeley.edu/courses/sp09/arch201/davids/
16 I.D. Magazine, July/August 2006, pp 152-163
17 The 108-page guide can downloaded at http://peer.berkeley.edu/publications/peer_reports/reports_2006/reports_2006.html
18 I.D. Magazine, July/August 2006, pp 152-163
20 Personal correspondence received by Dana Buntrock, 18 October 2009
21 Douglass, John Aubrey, “Shared Governance at the University of California: An Historical Review,” CSHE.1.98 (March 1998) http://academic-senate.berkeley.edu/about/about.html
23 http://gs.berkeley.edu/index.aspx
24 Personal e-mail, received by Dana Buntrock, 29 October, 2009
25 http://www.cab.ca.gov/candidates/license_requirements.shtml
26 California statistics are from: http://www.cab.ca.gov/candidates/are_statistics.shtml
California statistics are from: http://www.cab.ca.gov/candidates/are_statistics.shtml


Personal email, received by Dana Buntrock, 10 September 2009

http://www.publicarchitecture.org/

http://info.aia.org/nws/nacq.cfm?pagename=nacq_a_091504_in_nonprofits

http://projecthdesign.org/

Personal email, received by Dana Buntrock, 14 October 2009

Source: http://campuspol.chance.berkeley.edu/summary.cfm?pid=445&urlDesc=Diversity


http://www.ced.berkeley.edu/alumni/giving/cedcampaign/endowedchairs/arcus

Ibid.

Examples of this include the following from the March 2006 Visiting Team Report to Northeastern University, under “Causes of Concern”:

“The team notes continued concern about the number of full-time faculty, and whether there is enough such faculty to adequately advise and mentor students and coordinate adjunct faculty. … There is a continuing challenge to maintain the school’s ambition and mission with a faculty in which there is a large number of adjuncts.”


While there is a clear benefit in the NAAB taking a stance on the increasing number of faculty hired across the nation who are not full-time, the current criteria used for assessment have not been designed to set ratios of full-time to adjunct faculty; it could be argued that this point, which was presented as a negative, reflects advocacy for specific organization models unstated in NAAB criteria.


Additional information on these exhibitions is available at:

Fall 2006: http://www.ced.berkeley.edu/departments-programs/arch/fall-2006-lecture-series.html#exh


Fall 2009: http://www.ced.berkeley.edu/events/exhibitions

Library cases: http://www.lib.berkeley.edu/ENVI/news.html

http://www.ced.berkeley.edu/cedarchives/exhibitions/

Davids, René. “Xochimilco Archeological Museum and Botanical Garden: The Mexico City Studio,” Frameworks, no. 7 (Fall 2007) p. 28

For more on this class, including examples of student work, see http://arch.ced.berkeley.edu/courses/sp08/arch201/front-page2.html

http://www.ced.berkeley.edu/courses/sp09/arch201/davids/

Personal email to Dana Buntrock, 28 October, 2009

Personal email to Dana Buntrock, 28 October 2009


Ibid., 210-1d. Emphasis in the original.
49 Ibid., 210-1 d(1).
50 Ibid., 210-1 d(3). Emphasis added.
51 Ibid., 210-1 d(4).
52 http://www.ced.berkeley.edu/college/havens
53 http://www.ced.berkeley.edu/cedarchives/about.html
54 http://www.ced.berkeley.edu/vrc/index.php?option=com_content&task=view&id=12&Itemid=26
55 http://www.ced.berkeley.edu/vrc/index.php?option=com_content&task=view&id=13&Itemid=27
56 http://www.artstor.org/what-is-artstor/w-html/artstor-overview.shtml (Accessed 12 October 2009; the collection has roughly doubled in size in eighteen months.)
57 Personal e-mail to Dana Buntrock, Nov. 5, 2009
59 Data generated via Cal Profiles
# TABLE OF CONTENTS – SUPPLEMENTAL

## 4. SUPPLEMENTAL

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>STUDENT PROGRESS EVALUATION PROCEDURES</td>
<td>3</td>
</tr>
<tr>
<td>4.2</td>
<td>STUDIO CULTURE POLICY</td>
<td>9</td>
</tr>
<tr>
<td>4.3</td>
<td>COURSE DESCRIPTIONS</td>
<td>11</td>
</tr>
<tr>
<td>4.4</td>
<td>FACULTY AND STAFF RESUMES</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>4.4.1 TENURED AND TENURE-TRACK FACULTY / RÉSUMÉS</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>4.4.2 CONTINUING LECTURER / ADJUNCT RÉSUMÉS</td>
<td>125</td>
</tr>
<tr>
<td>4.5</td>
<td>VISITING TEAM REPORT FROM THE PREVIOUS VISIT</td>
<td>143</td>
</tr>
<tr>
<td>4.6</td>
<td>ANNUAL REPORTS</td>
<td>175</td>
</tr>
<tr>
<td>4.7</td>
<td>SCHOOL CATALOG</td>
<td>231</td>
</tr>
<tr>
<td>4.8</td>
<td>NAAB RESPONSES TO THE ANNUAL REPORTS</td>
<td>237</td>
</tr>
</tbody>
</table>
4. **SUPPLEMENTAL**

4.1 **STUDENT PROGRESS EVALUATION PROCEDURES**

In our program, there are two checklists that are used to evaluate student progress. The first is the M.Arch Program Requirement Checklist that is the record of required and sub-area courses taken to fulfill our program. The second is the NAAB Student Performance Criteria Checklist that students self-record courses they take that fulfill their NAAB requirements. Both are reviewed by the Student Affairs Officer every semester to ensure that the minimum standards are being maintained. Where she sees problems, they are raised with the Chair of Graduate Advisors.

**PROCEDURES FOR EVALUATING STUDENT TRANSFER CREDITS**

In the summer prior to M.Arch students beginning at Berkeley, the Student Affairs Officer, Lois Koch, closely reviews each transcript, marking classes that fulfill our requirements. In general, these classes are taken in non-professional Bachelor programs in architecture, although engineering classes, for example, are considered appropriate substitutions for our ARCH 150, Introduction to Structures class, for example. The graduate office keeps an on-going record of courses and institutions for which faculty have given waivers to determine credit for incoming students into the Option 2 program (4 + 2 program.) When there is any doubt, the requirement is not marked as fulfilled.

For students seeking credit for courses they have taken at other institution to fulfill their sub-area requirements and for which they were not given transfer credits, they must get approval from a faculty member who teaches in that sub-area, from their Graduate Advisor, and from the Chair of Graduate Advisors. A sub-area faculty member typically requests syllabus material from the other institution for review – some faculty even give quizzes. If the course is equivalent and fulfills the same NAAB Performance Criteria, the student is given a waiver.

Jill Stoner, the Chair of Graduate Advisers since 2008, is revising this system to more fully integrate faculty into process of allowing waivers. Stoner’s goals for these revisions appear to be in line with the increasing accountability found in the NAAB 2009 Criterion. Under our new system, which has not yet been approved by the faculty, each student entering our program is responsible for requesting a waiver based on their prior education and our curriculum requirements. One or two faculty from each area will be responsible for reviewing
transcripts and syllabi of previous preparatory courses, to evaluate equivalence with our own courses. If classes taken before entering the program are approved for equivalency, these will be checked off when the area faculty and the Chair of Graduate advisors* both agree to waive a requirement, either based on previous review of syllabi or on a case-by-case basis, as appropriate. The Chair of Graduate Advisors will also review requests for course waivers in the context of the students’ overall performance. We have both three-year and two-year options, and a student's placement in one or the other of these is determined in part by their preparatory education.

The following are the M.Arch Program Requirement Checklists for Option 2 and Option 3 as well as the NAAB Student Performance Criteria Checklist:
CHECKLISTS FOR OPTION 2:

<table>
<thead>
<tr>
<th>Program Areas</th>
<th>Sub Areas</th>
<th>Undergrad Courses</th>
<th>Required M Arch Courses</th>
<th>Notes: course completed &amp; date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Design</td>
<td>Introduction</td>
<td></td>
<td>Arch 200A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advanced</td>
<td></td>
<td>Arch 200B</td>
<td></td>
</tr>
<tr>
<td>Architectural Methods &amp; Practices</td>
<td>Professional Practices</td>
<td></td>
<td>Arch 201/208</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Theories and Methods</td>
<td></td>
<td>Arch 130-239</td>
<td></td>
</tr>
<tr>
<td>Architectural Sciences</td>
<td>Building Sciences</td>
<td>Arch 140-249</td>
<td>Arch 201, 208</td>
<td>1 comprehensive studio required</td>
</tr>
<tr>
<td></td>
<td>(60 units in other architecture classes)</td>
<td></td>
<td>Arch 150-259</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Building Structures</td>
<td></td>
<td>Arch 160-249</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construction &amp; Materials</td>
<td></td>
<td>Arch 110-219</td>
<td></td>
</tr>
<tr>
<td>Architectural Humanities</td>
<td>Social &amp; Cultural Processes in Arch &amp; Urbanism</td>
<td></td>
<td>Arch 170-279</td>
<td></td>
</tr>
<tr>
<td></td>
<td>History of Arch &amp; Urbanism</td>
<td></td>
<td>Arch 203 (Thesis Prep Seminar) or Arch 281 (Methods in Arch Research) or Arch 204 (Independent Thesis)</td>
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</tr>
<tr>
<td>Thesis</td>
<td>Thesis Preparation</td>
<td></td>
<td>Arch 201, 208</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thesis</td>
<td></td>
<td>Arch 201, 208</td>
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</tbody>
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* unless student has taken additional courses in these areas during undergraduate degree coursework

GSI credit (Arch 200A)
GSI Pedagogy class (Arch 300)

**Notes:**
- All courses must be 3-5 units and taken for a grade, except Arch 200A.
- Summer Session
- Joint Program units
- Completed 1st Semester: 48 units remaining
- Completed 2nd Semester: 48 units remaining
- Completed 3rd Semester: 48 units remaining
- Completed 4th Semester: 48 units remaining

4. Supplemental
CHECKLISTS FOR OPTION 3

<table>
<thead>
<tr>
<th>Program Areas</th>
<th>Sub Areas</th>
<th>Undergrad Courses</th>
<th>Required M Arch Courses</th>
<th>Notes: course completed &amp; date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Design</td>
<td>Introduction</td>
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<td>Arch 200A Arch 200B</td>
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<tr>
<td></td>
<td>Advanced</td>
<td></td>
<td>Arch 201 / Arch 201 Arch 201</td>
<td>date:</td>
</tr>
<tr>
<td>Architectural Methods &amp; Practices</td>
<td>Professional Practices</td>
<td></td>
<td>Arch 207 / Arch 208</td>
<td></td>
</tr>
<tr>
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<td>Theories and Methods</td>
<td></td>
<td>Arch 130-239</td>
<td></td>
</tr>
<tr>
<td>Architectural Sciences</td>
<td>Building Sciences</td>
<td>Arch 140-240</td>
<td>Arch 150-259 (150 is a prerequisite to other Structural Design classes)</td>
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<tr>
<td></td>
<td>Building Structures</td>
<td></td>
<td>Arch 160-269 (269 is a prerequisite to other Construction classes)</td>
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</tr>
<tr>
<td></td>
<td>Construction &amp; Materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Architectural Humanities</td>
<td>Social &amp; Cultural Processes</td>
<td>Arch 110-219</td>
<td>Arch 170-279 (170 is a prerequisite to other History classes)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In Arch &amp; Urbanism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
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<td>Thesis Preparation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thesis</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Unless student has taken additional courses in these areas during undergraduate degree coursework

GSI credit (Arch 298)
GSI Pedagogy class (Arch 300)
NAAB Performance Criteria - 2004

Name: ___________________________ Date: __________

Opt. _______ Semester/Year Began Program __________

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Courses that fulfill req.</th>
<th>Instructor</th>
<th>Semester/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Verbal and Writing Skills</td>
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<td>2. Critical Thinking Skills</td>
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<td>3. Graphic Skills</td>
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<td>4. Research Skills</td>
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<td>5. Formal Ordering Systems</td>
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<td>6. Fundamental Design Skills</td>
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<td>7. Collaborative Skills</td>
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<td>8. Western Traditions</td>
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<td>9. Non-Western Traditions</td>
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<td>10. National/Regional Traditions</td>
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<td>11. Use of Precedent</td>
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<tr>
<td>12. Human Behavior</td>
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<td>13. Human Diversity</td>
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<td>14. Accessibility</td>
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<td>15. Sustainable Design</td>
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<td>16. Program Preparation</td>
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<td>17. Site conditions</td>
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<tr>
<td>18. Structural Systems</td>
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<td>19. Environmental Systems</td>
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<td></td>
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<td>20. Life Safety Systems</td>
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<td>21. Building Envelope Systems</td>
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<td></td>
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<td>22. Building Service Systems</td>
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<td></td>
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<tr>
<td>23. Building Systems Integration</td>
<td></td>
<td></td>
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<tr>
<td>24. Building Materials/Assemblies</td>
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<td>25. Construction Cost Control</td>
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<td>26. Technical Documentation</td>
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<td></td>
<td></td>
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<tr>
<td>27. Client Role in Architecture</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>28. Comprehensive Design</td>
<td></td>
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<tr>
<td>29. Architect's Administrative Role</td>
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<tr>
<td>30. Architectural Practice</td>
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<td>31. Professional Development</td>
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<td></td>
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<tr>
<td>32. Leadership</td>
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<tr>
<td>33. Legal Responsibilities</td>
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<td></td>
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<tr>
<td>34. Ethics &amp; Professional Judgment</td>
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4.2 STUDIO CULTURE POLICY

This policy has been written by a team of faculty and students to reflect our concern for a studio culture that supports creativity and invention, respect and collaboration, health and safety, an ecology of materials, and optimism about the role of design in the larger cultural framework. The faculty are members of the Master of Architecture Committee. The student authors are members of the Master of Architecture Committee, elected by their peers to represent their voices on this and other activities of the committee. The statement reflects on-going values embraced by the Department; it was revised and approved by the faculty and students of the M.Arch Committee on October 26, 2009, with input from students. The policy is posted in the studios and is incorporated in the Master of Architecture Handbook. We assess its implementation and effectiveness through on-going processes that include reports by our Student Representatives to the Chair of Graduate Advisors and through individual advisors. As such, it is considered a living document which will regularly reflect the studio culture embraced by the students.

In addition to this Studio Culture statement below, all students sign a Wurster Pledge at the beginning of every year. It begins with the premise that we strive to maintain a creative and professional work environment, based on the idea that students are individuals that respect each other, their work space and the facilities. This pledge addresses studio etiquette, mutual respect for each other and physical facilities, and security and safety issues. After these issues are discussed in a group meeting, all students sign this pledge, confirming their understanding of the rules and guidelines and their commitment to honor their word and spirit.

HEALTH AND SAFETY

The intensity, energy and exhilaration of the design studio are the reasons why we’re here. Yet creativity demands balance. Efficiency, responsibility and health are equally essential components of effective studio work, and are valued by our design culture. You are not effective in your own work or in collaboration with others if you regularly work beyond your reasonable limits. Students are expected to have a spirit of collective responsibility, and to voice any concerns that might affect the health and safety of their peers.
ECOLOGY OF MATERIALS
The College and the Department ask that studio culture embrace a holistic approach to studio ecology. We ask for restraint in using materials that are unsustainable, the recycling of (ideally all) materials for the future reuse by others, and an exchange of information within the studio about material issues. Students are actively engaged in helping to set up reuse stations, and create a culture where they are used and valued as a resource.

RESPECT AND COLLABORATION
In studio culture, we believe collaboration trumps competition. Students and faculty maintain an atmosphere of mutual respect for and interest in each other’s ideas. Our work will always benefit from conversations with colleagues about shared themes, precedents and resources. Even in a portable, digital age, it is an essential requirement that design happens in the studio. Working in studio moves beyond logistics, nurturing studio culture and fostering the collaborative atmosphere that we most value. At the same time, care for our working environment is an essential part of our design ethic.

OPTIMISM AND INVENTION
None of the above should serve to dampen the creative spirit and faith in the design enterprise as essential components of architecture, and its ability to serve our larger cultural agenda.

This statement of policy reflects on-going values embraced by the Department; it was revised by the M.Arch Committee on October 26, 2009, with input from students.
4.3 COURSE DESCRIPTIONS

The following pages provide a one-page description of our upper division undergraduate and graduate courses, with an overview, learning objectives, course requirements, prerequisites, date(s) offered, and faculty member teaching it.
ARCH 110AC

Social and Cultural Processes in Architecture & Urban Design

Offered: Fall
Instructor: Galen Cranz
Units: 4
Time: Tuesdays & Thursdays 2:00 – 3:30
Prerequisites: None

Overview & Learning Objectives

Architecture 110AC focuses on the significance of the physical environment in human life as citizens and as future design professionals. This course is an introduction to the field of human-environment studies.

Its objectives include:
1. working knowledge of the concepts in person-environment relations,
2. understanding how these concepts vary by subculture, primarily Anglo-, Hispanic-, and Chinese-American,
3. learning to use the methodological skills needed to conduct architectural programming and evaluation research,
4. thinking critically about the values embedded in design and the consequences for people, their behavior, and feelings.

For the fifth year we are running this large enrollment class as a forum. It will not be a lecture in the traditional one-way flow of communication. Instead, material will be introduced and developed in sections and then shared in the full assembly/forum (alias lecture).

Course Requirements

Note that concepts, methods and applications run throughout the course. You are expected to be active in analyzing how this series of class meetings teaches you about concepts, methods, and applications. To help you trace these strands throughout the entire course the syllabus indicates in italics when a topic is primarily theory, method or application. When you review this material think about all the sections and full assemblies for what they tell you about methods, then re-examine the same material for concepts, ditto for applications. By applications we mean how social factors influence the design and use of a wide variety of building and place types – chairs, living rooms, housing, schools, playgrounds, campuses, parks, offices, neighborhoods, and streets.
ARCH 111                   HOUSING: AN INTERNATIONAL SURVEY

Offered: Spring  
Instructor: Nezar Alsayyad  
Units: 3  
Time: Tuesdays and Thursdays, 12:30 pm-2:00 pm  
Prerequisites: None

OVERVIEW AND LEARNING OBJECTIVES

How do we dwell in our cities? Through what processes are our living environments constituted? What does it mean to be shelterless and homeless in our propertied world? This course will look at housing processes and housing policies in and across a range of contexts. It will explicitly adopt a comparative and transnational approach to housing, showing how a globalized perspective provides important insights into local shelter struggles and policy debates. In the broadest sense, the course will use housing as a lens to study space and society, state and market, power and change.

COURSE REQUIREMENTS

Students are expected to attend classes regularly and to participate in discussions in the class and assigned sections. Doing well on class and section assignments will depend on diligently attending lectures and keeping up with weekly readings. Students are also required to attend discussion sections with the GSIs every 2 weeks. These sessions (time to be announced) will also provide review information for assignments and exams.
ARCH 140

ENERGY AND ENVIRONMENT

Offered: Spring
Instructors: Charles C. Benton and Gail Brager
Units: 4
Days Offered: Tuesdays & Thursdays 11:00 – 12:30
Prerequisites: Physics or equivalent

OVERVIEW

Arch. 140 provides undergraduates and graduates with an introduction to issues of physical building performance including building thermodynamics, daylighting, and solar control. The course presents the fundamentals of building science while recognizing the evolving nature of building technologies, energy efficiency, ecology, and responsible design. The course begins with a detailed explication of the thermal properties of materials, heat transfer through building assemblies, balance point temperature, solar geometry, and shading analysis. The latter part of the course provides a survey of broader building science topics including mechanical system design, microclimate, building rating systems, and current developments in energy-efficient design.

Within the constraints of an introductory survey course, Arch. 140 first establishes the importance of first principles in understanding the physical performance of buildings. Against a background of broader thermodynamic principles, the course presents methods to evaluate and understand steady state heat transfer and solar geometry. Students explore these principles in section exercises and apply them in the course to a design project.

EARNING OBJECTIVES

The class emphasizes the importance of student observation and ongoing assessment of existing buildings in understanding physical building performance. Students develop analytical capacities that link knowledge of first principles in physics to their implications in specific designs, a process that includes understanding human perception, environmental boundary conditions, and contemporary building systems. Group projects and exercises are designed to foster student skills in research and collaboration.

COURSE REQUIREMENTS

Arch. 140 combines twice-weekly lectures by the professors and occasional guest lecturers with weekly section meetings led by Graduate Student Instructors. Lectures provide a broad view of physical building performance and detailed explanations of calculation techniques useful in the early stages of architectural design. Section meetings allow students to work in small groups on laboratory exercises and focused design problems as well as participate in field trips to the Pacific Energy Center. The course culminates with a design project in which students are asked, working in teams of four, to synthesize principles and methods introduced earlier in the course to produce a façade that balances the flow of heat and light in response to programmatic need.
ARCH 144  
INTRODUCTION TO ACOUSTICS

Offered: Fall  
Instructor: Charles Salter  
Units: 1  
Days offered: Fridays 1:00 – 4:00, first five weeks of semester  
Prerequisite: Arch 150, Arch 160, Arch 260 or Consent of Instructor

OVERVIEW
This course focuses on what architects need to know about acoustics. The first part deals with the fundamentals of acoustics including how sound levels are described and measured, and human response to sound. The course then covers building acoustics, mechanical equipment noise and vibration control, office acoustics, design of sound amplification systems, and environmental acoustics.

COURSE REQUIREMENTS
Must be taken on a pass/no pass basis.
ARCH 150

INTRODUCTION TO STRUCTURES

Offered: Fall
Instructor: Gary Black
Units: 4
Days Offered: Tuesdays & Thursdays 11:00-12:30 + 3 hour lab
Prerequisites: Physics 8A

OVERVIEW

An intuitive understanding of structural behavior is taught through analysis and design of real-life problems. Structural theory is taught within the context of design and students are required to integrate both structural and architectural designs in projects assigned during the term. Students are also encouraged to apply the structural knowledge gained in class to their studio projects and the instructor and GSIs are available to discuss such integration during office hours or by appointment.

LEARNING OBJECTIVES

1. To acquire an intuitive understanding of structural systems, their behavior and appropriateness in architectural design, and the role that system selection plays in life safety for building occupants.
2. To learn how to integrate structural thinking into architectural design problems, through all stages of the design process from schematic design onward.
3. To obtain the necessary structural knowledge to allow students interested in pursuing a joint degree or minor degree with the structural engineering structural mechanics department to make the transition to advanced engineering classes.
4. To prepare students for subsequent structural offerings in the architecture department (Arch 154 Design and Computer Analysis of Structures).

COURSE REQUIREMENTS

7 homework problems, 12 lab assignments, 4 quizzes, 1 midterm exam, 1 final exam, 3 design projects.
ARCH 154  DESIGN AND COMPUTER ANALYSIS OF STRUCTURES

Offered: Spring 2010  Instructor: Gary Black  Units: 3  Days Offered: Tuesdays & Thursdays 5:00-6:30  Prerequisites: Arch 150

OVERVIEW
Students prepare a structural analysis of a case study, examining the building’s performance and comparing their analysis to code requirements. Under the direction of the instructor, students prepare multiple finite element computer models of the building to determine vertical, seismic, and wind load capacities. Upon successful completion of the case study (6 weeks) students are given a design problem in which they are required to design a building (or bridge etc), and devise a structural support system “that provides a rational load path to the ground.” To illustrate that they have accomplished these goals each student will prepare drawings and a structural analysis (recorded in a formal structural report) of their design. Learning how to integrate architectural concerns with structural demands and developing professional judgment regarding decisions that impact life-safety are explicit goals of the course.

LEARNING OBJECTIVES
1. To learn how buildings work structurally through “hand-on” experience with a formal structural analysis of an actual building. The analysis will include dead loads, live loads, seismic, and wind analysis and the required (2006 International building code) combinations of each.
2. To acquire the skills necessary to analyze a complex structure using advanced computer finite element modeling techniques.
3. To learn how to formally order a structural system to resist Code required loads.
4. To experience one way of integrating an architectural design with a structural design through multiple structural iterations with finite element analysis techniques.
5. To increase a student’s understanding of structures so that those interested in pursuing a joint degree with the structural engineering department at the graduate level are technically prepared to enter the program.

COURSE REQUIREMENTS
1 case study (approx 6 weeks in length) requiring a structural analysis and a structural report; 1 design problem requiring (i) study models, (ii) FEM’s, (iii) plans, (iv) sections, (v) elevations, (vi) structural framing plans, (vii) lateral load resisting element plans and elevations, (viii) connection details, (ix) structural report. Grade is based on case study and design projects. No quizzes, exams or other homework beyond the case study and design project will be required.
ED C169A

AMERICAN CULTURAL LANDSCAPES, 1600 TO 1900

Offered: Every Fall Semester, cross-listed as American Studies C112A and Geography C160A
Instructor: Paul Groth
Units: 4
Days Offered: Lectures Tuesdays & Thursdays 11:00 - 12:30 and 1 hour discussion section
Prerequisites: None. People from all majors are enthusiastically welcomed.

OVERVIEW
This course introduces ways of seeing and interpreting American histories and cultures, as revealed in the everyday built surroundings of homes, highways, farms, factories, stores, recreation areas, small towns, city districts, and entire regions. The course encourages students to read landscapes as records of past and present social relations, and to speculate for themselves about the meanings of material culture. The survey begins in four colonial regions—New England, the Mid-Atlantic, the Lowland South, and the Southwest—and continues chronologically. For the 1800s, the regions of the Midwest and Upland South are added, so that the course essentially covers the rural and urban U.S. to the Mississippi River up to 1900.

LEARNING OBJECTIVES
1. “Anatomy for designers”: Comprehension of a rich vocabulary for rural and urban elements of the built environment
2. Analysis of the economic and cultural processes of built-environment change and the diffusion of cultural innovations
3. Comprehension of the feedbacks between bioregion and culture region, vernacular buildings and high-style buildings
4. Ability to identify and analyze changes in the environment over time, and mixtures of changes in a given setting
5. Application of links between urban and suburban changes at the scales of lot, building, street, block, neighborhood, and urban region
6. Application of links between rural changes at the scales of farmstead, fields, and rural region
7. Synthesis of course themes in an original research paper about a particular place or landscape element

COURSE REQUIREMENTS
Regular attendance at lectures
Fairly extensive readings: A xeroxed reader with 33 articles, plus three books: Daniel Boorstin, The Americans: The National Experience; William Cronon, Nature’s Metropolis; and a period novel, Upton Sinclair, The Jungle
A half-day self-guided field trip through Oakland as a typical American city, with a guidebook by Paul Groth
Active participation in sections. Sections are worth 25% of the course grade.
A midterm exam with slide interpretation, 15% of the course grade.
A research essay (term paper) of 8 to 10 pages, 25% of the course grade.
A final exam, with more extensive slide interpretation than the midterm, 35% of the course grade.
ED C169B
AMERICAN CULTURAL LANDSCAPES, 1900 TO THE PRESENT

Offered: Every Spring Semester, cross-listed as American Studies C112B and Geography C160B
Instructor: Paul Groth
Units: 4
Days Offered: Lectures, Tuesdays & Thursdays 11:00 - 12:30 and one hour of discussion
Prerequisites: None. People from all majors are enthusiastically welcomed.

OVERVIEW
This course introduces ways of seeing and interpreting American histories and cultures, as revealed in the everyday built surroundings of homes, highways, farms, factories, stores, recreation areas, small towns, city districts, and entire regions. The course encourages students to read landscapes as records of past and present social relations, and to speculate for themselves about the meanings of material culture. For rural examples, the survey begins in sub-regions of the American West (that is, areas west of the Mississippi River); urban and suburban subjects are drawn from the entire U.S.

LEARNING OBJECTIVES
1. “Anatomy for designers”: Comprehension of a rich vocabulary for rural and urban elements of the built environment
2. Analysis of the economic and cultural processes of built-environment change and the diffusion of cultural innovations
3. Comprehension of the feedbacks between bioregion and culture region, vernacular buildings and high-style buildings
4. Ability to identify and analyze changes in the environment over time, and mixtures of changes in a given setting
5. Application of links between urban and suburban changes at the scales of lot, building, street, block, neighborhood, and urban region
6. Application of links between rural changes at the scales of farmstead, fields, and rural region
7. Synthesis of course themes in an original research paper about a particular place or landscape element

COURSE REQUIREMENTS
Regular attendance at lectures
Fairly extensive readings: A xeroxed reader with 37 articles, plus four books: Chris Wilson and Paul Groth, eds., Everyday America; Daniel Boorstin, The Americans: The Democratic Experience; Sinclair Lewis, Babbitt; and D. J. Waldie, Holy Land: A Suburban Memoir
A half-day self-guided field trip through Oakland as a typical American city, with a guidebook by Paul Groth
Active participation in sections. Sections are worth 25% of the course grade.
A midterm exam with slide interpretation, 15% of the course grade
A research essay (term paper) of 8 to 10 pages, 25% of the course grade
A final exam, with more extensive slide interpretation than the midterm, 35% of the course grade
ARCH 170A
A HISTORY OF ARCHITECTURE AND URBANISM
FROM PRE-HISTORY THROUGH THE MIDDLE AGES

Offered: Fall
Instructor: Andrew Shanken
Units: 4
Days Offered: Tuesdays & Thursdays 12:30-2; and sections
Prerequisites: None

OVERVIEW
This course provides an overview of the history of the built environment from its beginnings to about 1400CE. The scope is broad in geographical, cultural, and architectural terms. It is also an introduction to historical methods in architectural history. Students will learn a variety of ways to look at the history of architecture and cities while they learn both canonical monuments and less celebrated examples. While the Mediterranean basin is emphasized, lectures and sections provide global coverage of Islamic Architecture and Urbanism, Central Asia, Persia, China, Japan, Hindu and Buddhist Architecture in South and Southeast Asia, Teotihuacan, Mayan Architecture, and North American Urbanism.

LEARNING OBJECTIVES
This class aims to expose students to architecture and urbanism in its social and cultural context, to teach students to look closely at architecture from many cultures, to provide a range of historical methodologies, to introduce historiographical thinking, and to provide a critical awareness of the canon. Students are also exposed to methods in historical research by writing a 10-page research paper on a topic of their choosing. The paper is carefully broken down into the framing of a topic and the creation of an analytical bibliography, the development of an original thesis, and, through a rough draft, the close arguing of that thesis through architectural and historical evidence. Students also learn to master a large corpus of visual material through examination.
ARCH 170B

A HISTORY OF ARCHITECTURE AND URBANISM
FROM 1400 - PRESENT

Offered: Spring
Instructor: Greg Castillo
Units: 4
Days Offered: Tuesdays & Thursdays 12:30-2; and sections
Prerequisites: None

OVERVIEW

This course treats the history of architecture and urbanism from the Renaissance to the present. Although the focus is on high-style architecture in Europe and the United States, attention will also be given to Asia, Africa, Latin America, and to vernacular architecture. Our aim is to expose you to the architecture heritage of recent centuries in its social and historical context. The course is a continuation of Architecture 170A.

LEARNING OBJECTIVES

This class aims to expose students to architecture and urbanism in its social and cultural context, to teach students to look closely at architecture from many cultures, to provide a range of historical methodologies, to introduce historiographical thinking, and to provide a critical awareness of the canon. Students are also exposed to methods in historical research by writing a 10-page research paper on a topic of their choosing. The paper is carefully broken down into the framing of a topic and the creation of an analytical bibliography, the development of an original thesis, and, through a rough draft, the close arguing of that thesis through architectural and historical evidence. Students also learn to master a large corpus of visual material through examination.
ARCH 173

CASE STUDIES IN MODERN ARCHITECTURE

Offered Fall 2009
Instructor: Greg Castillo
Units: 3
Days Offered: Tuesdays and Thursdays 12:30-2:00
Prerequisites: Arch 170A or 170B and consent of instructor

OVERVIEW
There is no single ‘correct’ definition of modern architecture. Modernism is pluralist, composed of various movements without any single ‘correct’ approach to contemporary design. This course examines developments in design, theory, graphic representation, construction technology and interior programming through case studies of individual buildings. Our survey technique is highly focused rather than panoptic. Each lecture delves deeply into one or two buildings to examine program, spatial organization, graphic representation, critical building details, construction technology, and the relationship of the case study building with regard to other parallel works and the architect’s overall body of work. From this nucleus we will spiral outward to consider how the case study is embedded within a constellation of social and economic factors crucial to its design and physical realization.

LEARNING OBJECTIVES
The foundational knowledge imparted by this survey of modern architecture will be reflected in the ability to:
* identify case study buildings selected from the North America, Europe, Asia and Oceania through plans, elevations, sections, or building details;
* understand the goals, limitations and constructed nature of an architectural canon and of the case study method;
* assess and compare case study buildings as propositions about the character of modern society and its values, culture, economy, and technology;
* place case study buildings within the context of modernist movements in architecture and compare design movements with regard to style, theory and discourses concerning national and regional traditions and the nature of modernity;
* analyze the changing aspirations and role of architectural professionals over the course of the past century, and their use of previous iterations of modernism as precedents;
* effectively communicate evaluations of case study buildings and their broader historical context in written form in a class term paper class and exams.

COURSE REQUIREMENTS
Weekly readings and discussion, two examinations, and a term research paper.
ARCH 200A

FUNDAMENTALS OF ARCHITECTURAL DESIGN

Offered: Fall
Instructor: Lisa Iwamoto, Mark Anderson, Roddy Creedon
Units: 8
Days Offered: MTWThF 2:00-6:00

OVERVIEW

Architecture 200A is the first of two required fundamental graduate studios. It is an intensive studio that teaches techniques, methods, and conceptual approaches for designing buildings. The course is conducted as a series of design exercises that progress in complexity over the course of the semester.

Project 1: Double Negative. We will begin the semester by positing that the design of space and form be thought of together as a complementary and subtractive process. The product of this process will be a three dimensional spatial construct, a Double Negative defined as two subtractive volumes/voids that intersect to produce a third. This involves rigorous and specific thought combined with more generalized abstract thinking. Your premise should inform all your design decisions; it is important to understand that concepts develop from ideas that are visible in the work.

Project 2: Urban Infill. This project addresses several crucial architectural issues – spatial organization, sequence and programmatic arrangement through SECTION. It is conceived to enable you to focus on interior space, vertical and horizontal movement, and experience in relation to a building designed with a strong architectural concept. The vehicle for this project will be to redesign the new headquarters for a non-profit organization in San Francisco Bay. Their program serves both the private community, and the larger public. The volumetric limitations of the Double Negative model may be seen as comparable to the site limitations of the urban infill site; i.e. it is contained on three sides by walls and ground, with compressed space for vertical and horizontal circulation and limited opportunity for light.

Project 3: Building + Landscape. The project is to design a boathouse and constructed landscape as prototype for the development of urban parks where recreational activities and native landscape and wildlife areas coexist. The main themes for this project are not to think of the building as an object, but as part of an integrated system that includes the site and water’s edge. The boathouse itself requires a large, open, naturally ventilated space with access to water and boat storage. As such, the building is at times porous, demanding a strong relationship between inside and out, landscape and enclosure, structure/skin and ground/water.

LEARNING OBJECTIVES

- To learn architectural terminology.
- To learn a diverse range of architectural representation techniques.
- To learn fundamental design skills through design iteration.
- To develop and understand form and formal systems in conjunction with program, space, experience, and site relationships.
- To develop critical thinking and self critique through diagramming and design iteration.
- To develop verbal presentation skills in conjunction with clear graphic presentation.
- To work on collaborative skills through group site documentation.
- To learn from excellent architectural precedents.
- To understand, document and analytically represent conditions of site.
- To evaluate, understand, and define program as a critical aspect of design.
- To understand building materials and structural systems.

COURSE REQUIREMENTS

Full attendance at all class sessions. Monday, Wednesday and Friday are studio days with faculty. Tuesday is a digital and analog skills laboratory with Graduate Student Instructors, Thursday is an independent workday. Completing assignments to the best of your ability in an iterative manner is expected at all times. Drawing and model building instruction is integrated with the studio, as are introductions to the Architecture faculty through mid and final reviews. We expect that all the students will work in the studio and thereby contribute to this very important aspect of architectural education.
ARCH 200A

SEMINAR

Instructor: Andrew Shanken

OVERVIEW AND LEARNING OBJECTIVES

This module of 200A is an introduction to historical and theoretical thinking in architecture, with a focus on those ideas, movements, methods, and words that have shaped the profession and catalyzed space- and form-making. It begins from the premise that the great architects, famous or not, have developed sophisticated relationships to the past and to the theoretical underpinnings of the discipline. This is more than a layer of thinking in their work: it is a part of the creative process. This embeddedness with history and theory allows designers to take their distance even as they immerse themselves in design problems. Following from this, the course readings are intended to provide critical distance – also one of the pursuits of history – and to develop a language of interrogation that will help put the studio experience into context. Students are asked to do short weekly readings and come prepared to discuss them. Several of the weeks include site visits to buildings that either put us in the mood for the readings or play off of them in compelling ways.
ARCH 200B  FUNDAMENTALS OF ARCHITECTURAL DESIGN

Offered: Spring 09
Instructor: Nicholas de Monchaux, Ronald Rael, Jill Stoner
Units: 8
Prerequisites: Arch 200A

OVERVIEW

Introductory course in architectural design and theories for graduate students. Problems emphasize the major social, technological and environmental determinants of building form. Studio work is supplemented by lectures, discussions, readings, and field trips.

We will build on the understanding of the architectural object and strategy studied in 200a, expanding the field of architectural conversation to discover how a building exists in a context, and – crucially – how a building can contribute to it.

At important points in its intellectual history, our profession has re-examined architectural precedents to derive new forms and ways of thinking about design. Such discussions have been particularly crucial at moments of cultural, social and technological transformation in the profession and its means of working. Now is such a time. This semester, the Fundamentals of Architecture Design Studio involved the analysis and representation of a series of canonical structures, to be visited during an extended research trip in March. The first month of the semester the students study these precedents in relation to a range of architectural media—new and old. Subsequent work took the form of architectural commentary on these examples through the design of a small-scale architectural pavilion that serves an exhibition/ticket booth pavilion and later, the design for housing that accommodates visitors and scholars who come to visit these important works.

COURSE REQUIREMENTS

As participants in a graduate studio, we share a common expectation of presence in studio during all class hours and all class meetings. If you must be absent or late, let us know beforehand. Behind this rather arbitrary gesture towards scheduling is a much deeper assumption; that each of us (instructors included) will give the studio a primary focus, and, in your case, produce work continuously from studio to studio. This focus on process is a fundamental premise of architectural education – and practice! As this idea relates to the (again, arbitrary) process of grading, your P/F grade for the semester will be accounted not only through what you are able to accomplish for each ‘big’ review, but equally through an ongoing conversation about what is produced for each studio meeting. We will continue to emphasize and outline these expectations throughout the semester. Finally, we would like to emphasize that these expectations apply especially to the most challenging part of our semester – the site visit. Dates and locations – including those for arrival in, and departure from, Europe, are not flexible. This is primarily because the site visit will involve group work. Feel free to propose changes to the plan as a whole; if you yourself must depart from it, though, (travel on different days etc.) you need to get it OK’ed by everyone you will be working with – colleagues as well as instructors.
ARCH 201

CASE STUDIES IN ARCHITECTURAL DESIGN- COMPREHENSIVE STUDIO

RECLAIMING THE EDGE: MARIN MUSEUM AT HORSESHOE COVE - FORT BAKER

Offered: Fall 2008
Instructor: Mary Griffin and Eric Haesloop, Friedman Professors
Units: 5
Time: M & W 2:00-6:00
Prerequisites: 100A-100B or 200A-200B

OVERVIEW

Located at the foot of the Golden Gate Bridge, just inside the bay in Sausalito, Fort Baker is an historic post which has served many functions to many different people. Once home to the Miwok tribes who used the site as a hunting ground, the use of the land changed almost immediately with the arrival of the Spanish in 1775. Its strategic location on the water and entrance to the bay has made it a prime military stronghold throughout the last two centuries, serving as an army reservation, hospital, marine repair shop, mine assembly plant and medical research facility. The site is also the location of the fog signal station and was used as a concrete mixing plant during the construction of the Golden Gate Bridge. In 1972 the Golden Gate National Recreation Area was created by the National Park Service effectively handing the land over from the military to the general public.

Today Fort Baker is home to the Bay Area Discovery Museum as well as the recently completed Cavallo Point Resort and Conference Center which has restored the Parade Grounds and reused the historic structures. The site also continues to be a thriving wildlife habitat and spawning ground for many species of birds, butterflies and sea life. Extensive parking has been constructed to support these new attractions and make it easier for visitors to explore the area.

Despite this new development, a large parcel of disturbed land along Horseshoe Cove which once housed the military hospital is currently unused. The water’s edge along the cove is not easily accessible to the public: visitors come to Fort Baker to visit the children’s museum or the resort and never get to the water. The Park Service plans to restore a beach along Horseshoe Cove between the Coast Guard Station and the Yacht Club and improve public access. This studio will assume the design of the beach and promenade along the water’s edge.

Marin County does not have an art museum other than a small community museum in Bolinas. A new museum of 20,000 square feet with an outdoor sculpture collection is proposed in the undeveloped, disturbed land between the new parking and the water’s edge at Horseshoe Cove. The exploration of the studio will be how the new museum could claim and enhance this potentially spectacular but unused and challenging site.

The program calls for a large changing exhibition space and smaller gallery, an adjoining outdoor sculpture space with public access, cafe, and meeting room. The expansive site along the water’s edge and the comparatively small program area offer the possibility to explore the reciprocal relationship of interior and exterior spaces in the context of the immediate building site and the larger landscape. Topography, views, solar orientation, tides, wind and fog are elements of the site that will need to be taken into consideration. A permanent collection that is comprised of pieces that the studio will visit and experience firsthand is envisioned for the outdoor sculpture space.

LEARNING OBJECTIVES

We will be asking you to develop your designs to address the comprehensive studio requirements including structure, enclosure, lighting, materials and sustainable energy performance. A goal of the studio is to gain a better understanding of how construction systems and careful detailing can inform and enrich the overall concept and experience of a building.
ARCH 201  
CASE STUDIES IN ARCHITECTURAL DESIGN: COMPREHENSIVE STUDIO  
NATURE PRINT

Offered: Fall 2008  
Instructor: Peter Testa  
Units: 5  
Time: M & W 2:00-6:00  
Prerequisites: 100A-100B or 200A-200B

OVERVIEW

NATURE PRINT®, a molecular technology used by the burgeoning perfume industry to extract and reconstruct fragrant sources in nature offers both a metaphor and technique for this design studio. In a global context of climate change and environmental degradation the program for the manufacture and consumption of exotic scents may appear superfluous yet the studio proposes that the $20B a year perfume industry offers an intriguing real-world platform for an ecosystems approach to architecture. The challenge is to merge science and natural phenomena to create new levels of environmental performance and multi-sensory experiences without leading to a naturalistic reduction. The semester will be sequentially divided in two phases:

1.0 RESEARCH: A booklet summarizing the main topics of the research needed to prepare for the following design phases will be collectively produced by every student in the class, working in teams of 2-3 people.

The content will be organized as following:

a. Scent technologies  
b. Plant & microbial biology  
c. Thermodynamics  
d. Rheological materials and amorphous solids  
e. Structural morphology  
f. Software tools

2.0 SECRET & INVISIBLE HEADQUARTERS: The project will focus on the exploration of layered bioclimatic envelopes and new spatial models at the intersection of advanced technology and natural processes. Studio participants are to extract information from project 2.0 such as morphology, material process, fabrication technique or design procedure and redeploy in the Secret & Invisible Scents HQ.

The project brief calls for nested environments and biotopes equivalent in size to an eight story structure on a dense urban site in Tokyo. The program carries within it conflicting and contradictory drives including particular climatologic and sentient requirements for humans and non-humans. Growing chambers for plant materials require a range of light and humidity from desert to tropical rainforest, laboratory space requires clean room level control, while commercialization chambers are modulated to serve human needs without external contamination. Spaces for maintenance and preservation require total darkness and unpopulated temperatures. This complex organism provides the architect with a laboratory for new climate control techniques and buffers.

LEARNING OBJECTIVES

Studio projects will rethink the mid-rise from the exterior membrane inwards to the mechanical and structural systems in addition to new spatial qualities and atmospheres. Design research will focus on surface patterning and life supports folded into many successive envelopes with particular attention to ambiance, environment, and atmosphere. The projects are to be understood as ecosystems, complex assemblages of materials, networks, systems, and ecologies, all competing and influencing each other.
ARCH 201        CASE STUDIES IN ARCHITECTURAL DESIGN - COMPREHENSIVE STUDIO

EMBARCADERO REFUGIO SAN FRANCISCO

Offered: Fall 2008
Instructor: Mark Anderson
Units: 5
Time: M & W 2:00-6:00
Prerequisites: 100A-100B or 200A-200B

OVERVIEW

In the 1980’s San Francisco began the city of refuge movement in the United States, offering official city support and sanctuary for illegal refugees from U.S.-supported right wing violence in Latin America, placing a slightly more official, but no less controversial, imprimatur on the historical reality of San Francisco’s dynamically counter-cultural ebb and flow. This largely forgotten program of social refuge is back in the city’s front page news again today, and under attack, linked to juvenile crime, the specter of terrorism, and the current resurgence of anti-immigrant sentiment in national politics. But there is more than this, with points of departure for architectural imagination far more interesting than ho-hum metaphorical background to some lame studio brief. What can be built? Social refuge has become interwoven with issues of eco-system refuge for the native flora and fauna of California, increasingly threatened by the quickening creep of dramatic climate change. Traditional wildlife refuge concepts of the past century are no longer adequate as climates and ecosystems in California have begun to travel, upward in elevation, northward in latitude, and toward the coast. Wildlife refuge is no longer an issue of preserved natural real estate, becoming instead an issue of climate driven migration, and potential need for engineering life support. Within biology, active human interference in support of eco-system preservation—moving ecosystems rather than preserving them in situ—is no less controversial than San Francisco’s social refuge is to political debate.

What will we do in this studio? There are three phases to the project. First we will research and discuss the issue and imagine the possibilities (about 1 week). Next, with research continuing, we will work as a team designing a master urban plan for this migratory wildlife overlay of San Francisco and its embarcadero (about two weeks). The physical product of this phase will be a single large wall model of the city, and a series of layered digital maps. Finally, the majority of the semester will be devoted to individual or small team design projects focusing on one significant detail emerging from the group master plan. Studio participants will be encouraged to explore a range of design media, including particular emphasis on physical models and digital modeling, as well as any other personally interesting form of experimental drawing and representation.

LEARNING OBJECTIVES

This studio will fulfill the objectives of a comprehensive design studio. As envisioned by architects concerned with the idea of a competency-based architectural education, a comprehensive studio is one that includes significant integration of both the conceptual logic of architecture as well as its practical realization in building form. This is typically understood to mean, by architectural accreditation boards for example, that every student receiving a professional degree in architecture should complete at least one studio course in which a building design project is developed comprehensively from programmatic design through a full set of design documents, clearly integrating structural, life safety, mechanical and enclosure systems into an overall design logic. This is of course a difficult objective to achieve, and comprehensive studios are often regarded as a frustrating and sometimes mundane chore. None of us will be willing to spend our valuable creative time on a mundane and uninteresting chore, and yet we certainly want to learn as much as possible about how to work comprehensively and responsibly in any building project. As architects, we want to achieve high levels of construction quality, fiscal and social responsibility while nevertheless maintaining simultaneously high standards for creativity and architectural depth. This is an immense and daily challenge for architects, in professional practice and in school—an exciting challenge, at the core of our highest ambitions for architecture. In this studio we will take the challenge on with great excitement and productive intensity. We will design spatially, experientially, programatically rich urban proposals, as well as responsibly researched, practically developed, well-integrated, beautifully drawn and detailed buildings.
ARCH 201        CASE STUDIES IN ARCHITECTURAL DESIGN: COMPREHENSIVE STUDIO
Slow REVERSE / Fast FORWARD

Offered: Fall 2009
Instructor: Jill Stoner
Units: 5
Days Offered: Mondays 2:00 – 6:00; Wednesdays 1:00 – 6:00
Prerequisites: 100A-100B or 200A-200B

OVERVIEW

Our site is the exurban hinterland south of San Francisco along the 101 highway, a landscape of isolated corporate headquarters, chain hotels, parking lots, airport support structures and office parks—constructions that fail to rise to the level of what we normally define as “Architecture. We will address these buildings as landscape—that is, as the potential site for an architecture that can be excavated out of their very substance. We will approach these sites with a non-judgmental spirit and a forensic eye for detail, as archeologists searching for new urban possibilities.

Phase 1, SLOW REVERSE 2010 – 2020: For the first ten weeks, we will consider an architecture that is reductive and subtractive, rather than accretive and additive. We will ask: how can we begin to reverse the environmental degradation of the past 50 years, while at the same time taking on the least appealing architectural products of that period? How can we emphasize lightness over weight, air and water over earth, and labor over material? We will challenge the definition of architecture as that which privileges new buildings on empty sites. We will optimistically assume that this now-ubiquitous detritus of the neo-liberal projects of the past several decades can become less privatized, less devoted to purely ‘urban’, anthropocentric values, and more open to ecological diversity and social compromise. Our ‘slow reverse’ will comprise four segments of two weeks each, focused on the specific issues of 1. demolition, 2. structure, 3. codes, 4. details. These elements of architectural construction documents will be addressed in the context of broad theoretical issues of economy and ecology.

Phase 2, FAST FORWARD 2020 – 2100: The first phase of work will set the stage for us to explore an impending reterritorialization of the 101 corridor, based on a hypothesis that the population of California’s Central Valley and other ‘warming’ territories will migrate toward this new urban energy. During the final four weeks of the semester we will ‘fast forward’ through the decades from 2020 – 2060, to speculate upon the kinds of ballot measures the public might put forward to engage both ecological imperatives and population growth along this same corridor. Design seeds planted during the first phase of work, together with theories of urban density and several 20th century proposals for linear cities, will hopefully inspire these imaginings.

LEARNING OBJECTIVES

To explore the politics of space through the language of architecture.

1. To practice the language of construction documents, and to perfect the graphic skills associated with the clear communication to contractors and introduce conventions of technical documentation over and above what is usually part of a design studio.
2. To work on collaborative skills through research at the beginning of the project, and visionary proposals at the end.
3. To emphasize environmental conservation and remediation.
4. To coordinate the architectural and structural systems, through consultation with structural engineers.
5. To understand regulations pertaining to life safety, particularly exiting and occupancy codes.
6. To engage in detailed design development, by limiting the period of schematic design to one week.
7. To place these architectural projects in the context of broader current political, economic and ecological concerns, through a set of shared critical readings.

COURSE REQUIREMENTS

An additional 1-unit module, Wednesday 1:00 – 2:00, is added to the class, to introduce fundamental aspects of professional practice and project delivery.
ARCH 201

Offered: Spring 2009
Instructor: Maria-Paz Gutierrez
Units: 5
Time: M & W 2:00-6:00
Prerequisites: 100A-100B or 200A-200B

OVERVIEW

The studio’s premise is based on the principal that the discipline of Architectural Design cannot be reduced to a singular specialty or scale of investigation, and as such, it is ideally suited to provide a conceptual framework for the diverse and vast disciplinary criteria that must be accommodated in the design of ecologically compatible systems. By defying normative environmental control systems models that behave interdependently but are typically designed independently we aim at formulating integrative and multiple problem sets explored at multiple scales. The studio will probe critical analysis of extensive climatic data visualization, physical studies, and scripting to (materiality), in order to frame the design problem at multiple scales of examination. A housing and recreational complex for the largest astronomical facility in the Atacama Desert AIMA (10,000 sf) will be developed in two research phases. Design inquiries will center on developing integrated adaptable networks (membrane-structure) as means of addressing the challenges of scarce water resources, extreme low humidity conditions, strong winds and light intensity.

PHASE 1

During the first phase students are required to develop individually tectonic prototypes that explored concepts and mechanics of climatic adaptability through energy recondution, exchange and material processing in synergy with the desert. These prototypes are examined through extensive climatic data visualization built through variable sources synthesized through processing (scripting visualization software). Students will develop a MATERIAL material prototype formed by a membrane-structural system that must be responsive to two climatic factors (i.e. humidity/ light). This prototype will consist of a 1”=1’ fragment that expresses operability.

PHASE 2

The second phase integration project culminates in a macroscale proposal set as a testbed for the integration of the two initial adaptable prototypes characterized by behavioral differentiations. By incorporating the quantitative analysis of the Bio-datascapes (phase 1-B) students will be challenged to evaluate in pairs the prototypes generated in Phase 1 to propose the site dwelling infrastructure. This will require careful integration of the individual material network prototypes. The Studio will finalize with the development of the dwelling at 1/8"=1’ site proposal and a detail section model @1/2”=1’ (operable).

LEARNING OBJECTIVES

1. Develop an understanding of how to structure the research of environmental building control systems design (interdisciplinary/ multi-scalar interdependencies/socio-cultural variables)
2. Awareness of the shifts presented by working with environmental flow dynamics vis-à-vis climatic mitigation strategies
3. Critical Analysis of bi-dimensional representation such as scripting (associative parametrics) beyond formal aspects
4. Critical use of multi-stage and multi-media fabrication models to develop physical studies
5. Develop skills to diagram and synthesize multiple climatic and material data
6. Evaluation of material and structural performance criteria at multiple scales
7. Analysis of programmatic variables as integrated physical and socio-cultural parameters
ARCH 201

Offered: Spring 2009
Instructor: René Davids
Units: 5
Time: M & W 2:00-6:00
Prerequisites: 100A-100B or 200A-200B

OVERVIEW

When Le Corbusier sketched a proposal for Buenos Aires in 1929, he visualized a business center on an island in the Río de la Plata that would serve as an iconic presence for travelers arriving by boat. Although it was superficially similar to his orthogonal abstract proposal for the Ville Contemporaine (1922), Le Corbusier’s scheme for Buenos Aires was as site-specific in its way as his curvilinear plan for the undulating hills of Rio de Janeiro: vertical towers that were a conceptual response to the meeting of the pampas and the river in a single line stretching across the horizon to infinity in both directions. The seemingly endless horizontal expanse of the pampas has an urban counterpart in the dense sprawl that is contemporary Buenos Aires. Located on the southern shore of the Río de la Plata, the third largest metropolis in South America, with a population of about 13 million, Buenos Aires is the capital of Argentina, a country that once had a bright future, but has seen its prospects dimmed by political and economic turmoil. Variously described as the most cosmopolitan, most beautiful, most European city in Latin America, Buenos Aires is a proud but faded city plagued by poverty, pollution, and decaying infrastructure.

STUDY AREA: RIACHUELO

Continuing the investigation of the relationships between architecture, infrastructure and urban waterways previously explored in Xochimilco, Mexico and in the Tamanduatei River Basin in São Paulo, Brazil, the Buenos Aires Studio will concentrate on the floodplain of the Río Riachuelo, the river that defines the southern boundary of the Buenos Aires federal district as it flows from western Buenos Aires into the Río de la Plata estuary, through fourteen barrios that are home to 3.5 million people. Factories and open garbage dumps located on its banks pollute the Riachuelo, and numerous illegal sewage pipes discharge directly into it.

SITE

The program site is located in the Barracas area of Buenos Aires, a district, in the southeast part of the city located between the Ferrocarril General Manuel Belgrano railroad and the Río Riachuelo. The name Barracas comes from the word barraca, which refers to a temporary construction of houses using rudimentary materials.

The project site is bounded by Alvar Nunez to the east, Vespucio to the west, Daniel Cerri to the north and Rio Cuarto to the south. Two regional winds exert a great influence on the Río de la Plata and the climate of Buenos Aires: the pampero, a wind which blows from the south to southwest, and southeasterly storm winds called sudestadas. When it is most powerful, the pampero drives the water from the river onto the Uruguayan coast, so that the water level drops on the Argentine side. During the Spring and Fall, the sudestadas prevent the waters of the Riachuelo from reaching the Río de la Plata, causing frequent floods in low-lying areas like La Boca and Barracas.

PROGRAM: URBAN WATER STRIP

To reverse the southward direction of urban expansion, cleanse the waters of the Riachuelo and stimulate economic growth, the city of Buenos Aires intends to rehabilitate the river’s edge The establishment of a sports, working and recreation strip along the river, with an emphasis on water sports in particular, may help Buenos Aires launch a successful bid to become the first Latin American Olympic city. The city intends to locate its new water sports infrastructure along the Riachuelo in a park that will be both productive and recreational, venues for water sports located within a water farming and/or hydroponic park. The specific farming component might be related to energy production, fresh water vegetables, fish, or any combination of these and is meant to give work to the people inhabitant living in the informal settlements along the river.
ARCH 201

**CASE STUDIES IN ARCHITECTURAL DESIGN**

**EPIGENETIC LANDSCAPE**

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**OVERVIEW AND LEARNING OBJECTIVES**

In biology, the term epigenetics refers to heritable changes in phenotype (appearance) or gene expression caused by mechanisms other than changes in the underlying DNA sequence (hence the name epi - "in addition to" - genetics). These changes may remain through cell divisions for the remainder of the cell's life and may also last for multiple generations. However, there is no change in the underlying DNA sequence of the organism; instead, non-genetic factors cause the organism's genes to behave (or "express themselves") differently.

The word epigenetics has had many definitions, and much of the confusion surrounding its usage relates to these definitions having changed over time. Initially it was used in a broader, less specific sense but it has become more narrowly linked to specific molecular phenomena occurring in organisms. When the word “Epigenetic Landscape” was invented by C. H. Waddington in 1942, the physical nature of genes and their role in heredity was not scientifically known. He used it as a conceptual model of how genes might interact with their surroundings to produce a phenotype.

This design studio speculates on a crossing of architecture, landscape, and artificial intelligence that is capable of learning from its own environment. This crossing performs within an architectural paradigm of desirable habitations and a technological paradigm of infrastructure and energy production. As a studio that is experimental in nature, we will attempt to explore exhaustively all sort of knowledge-based design possibilities to create a new cultivated farm field of “Intelligent Landscape” that achieves architectural, technological and aesthetic aspirations.

The programmatic requirements raised timely concerns at the global level about our social, economic, and material ecologies. Our society, which is single-mindedly driven by an exuberant engagement with technological invention, is rapidly evolving. The design exploration in this studio will fully celebrate the richness and latent potentials of architecture, art, and science, while attempting to understand and expose the repercussions and potential risks of their global trajectories.

The site chosen is under the jurisdiction of Trat Province along the Eastern Shoreline of the Gulf of Thailand, which is designated industrial development. An estuary that is as part of the lower course of Klong Nam Chieo, series of confluences, flowing south and southwest towards the Gulf, a part of the body of water connected to the Pacific Ocean. Trat is the farthest eastern province from Bangkok, whose eastern end is bordered by Cambodia. Amata Corp. PCL, Southeast Asian’s leading developer and manager of factory estates, has established a strong hold of majority of industrial estates situated in the nation’s Eastern Seaboard region, which is today Southeast Asia’s preferred location for manufacturing. Two airports located nearby the chosen site on the Eastern Seaboard primarily serve the tourist industry. One is a regional airport, Trat Airport services all domestic airlines located about 12-15 miles northeast of the site. The other, U-Tapao International Airport, originally served as the home to the Royal Thai Navy First Air Win (U-Tapao Royal Thai Navy Airfield) and is located about 88.8 miles east of the site.

**PROGRAM**

Energy Farm and Eco Spa + Resort developed and operated by Amata Corp. PCL.

**NOTE:** At the present time, a co-generation power plant, Amata Power (Rayong) Limited has been developed to serve the growing demand of electricity and steam at the Amata City Industrial Estate and to prepare for the future growth of industrial users. Commercial operation commenced in July 2000. Amata Power (Rayong) Limited entered into contracts to supply energy to Amata Quality Waters Limited, BMW Manufacturing (Thailand) Limited, Sinochem Chemicals (Thailand) Limited and Cardinal Health 222 (Thailand) Limited.

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4. Supplemental
ARCH 201  
CASE STUDIES IN ARCHITECTURAL DESIGN  
THINK BIG: BAY BRIDGE STUDIO

Offered: Fall 2009  
Instructor: Frederic Schwartz and Marc L'Italien.  
Units: 5  
Time: M & W 2:00-6:00  
Prerequisites: 100A-100B or 200A-200B

OVERVIEW
The Pacific Institute estimates that 480,000 people, a vast network of critical infrastructure, wide tracts of wetlands and various ecosystems and over $100 billion in property along California’s coast are at risk from inundation resulting from a 1.4 meter rise in sea level, if no actions are taken.

The San Francisco-Oakland Bay Bridge is one of the most heavily traveled bridges in the United States serving over 270,000 vehicles daily. The East span suffered damage as a result of the 1989 Loma Prieta Earthquake and was deemed seismically unsuitable as a life-line structure. Cal Trans is currently building a new causeway and suspension span that will replace the entire cantilever span and truss structures. Tons of riveted steel will be systematically dismantled, transported by barge, and melted at great expense—and detriment to the environment—to be reused as raw material.

We are at the dawn of an era of major change in the way humans chose to respond to environmental awareness. The new Bay Bridge addresses the seismic problem but operates under the old paradigm of fixing a symptom and not investigating the cause; the new Bay Bridge offers no solution to reducing the rising number of vehicles that will need to cross the bridge. The Bay Bridge studio will allow students to take action through the design and transformation of a local monument and historic resource.

PROGRAM
The studio program calls for a large scale, mixed-use, residentially driven, sustainable development with an emphasis on an iconic vision befitting the high visibility and historic importance of the site. The project should highlight environmental concerns, historic preservation and social interaction while creating a new destination in the Bay Area. The site offers unsurpassed views and sustainable design potential through its location and relation to wind, sun and water.

A flexible development program for 2 to 4 million feet of residential, retail and commercial space acknowledges the potential of the Bay Bridge’s unique location while addressing the need for live/work mixed-income neighborhoods with affordable and market-rate housing (to finance the affordable), a major new destination shopping and entertainment center, and other commercial uses, including office space and a hotel.

The program is weighted toward housing and the associated facilities necessary to sustain a unique autonomous new neighborhood (commercial, open space, social services). Students will not be expected to design in detail the various components of the program or a variety of dwelling units; however typical residential units individually and collectively should be realistic in terms of size, function and especially circulation.

LEARNING OBJECTIVES
The studio is ambitious and geared to developing skills and confidence to design on a large scale:

- Think about infrastructure and the important intersection of urban design and architecture.  
- Think big without losing sight of human scale.  
- Develop a project’s concept and conceive its urban and architectural impact in terms of program, density, scale and size.

The studio does not have a single educational focus for example on building systems, computer generated form, sustainable practice or housing but will touch upon all of these areas. Modifying the size, components and emphasis of the program according to the logical development of the project is part of our study: Concept, size and density matter.
ARCH 201  
CASE STUDIES IN ARCHITECTURAL DESIGN  
SUSTAINABLE NEIGHBORHOOD STUDIO

Offered: Fall 2009  
Instructor: Harrison Fraker  
Units: 5  
Time: M & W 2:00-6:00  
Prerequisites: 100A-100B or 200A-200B

OVERVIEW

This studio will explore how to integrate both the measurable and the poetics of sustainable design at the scale of a mixed-use, transit-oriented, neighborhood – a “transit village” in San Jose, CA. A goal of the studio will be to test if a neighborhood design can achieve zero carbon emissions (or better, i.e. to generate carbon credits) in the operation of the energy, water and waste systems, while significantly reducing the carbon footprint for transportation and food. This will require an examination of how to provide all the energy on site from conservation and renewables, how to recycle all the water and waste, how to create a pedestrian, bicycle and transit friendly environment with the opportunity to grow and/or acquire local food.

LEARNING OBJECTIVES

- To introduce the fundamentals of urban design at a neighborhood scale (n.s.)
- To conduct climate and site analysis at a n.s.
- To analyze and refine a market-derived developer program
- To explore the integration of architecture, landscape and infrastructure to achieve sustainability at the n.s.
- To integrate the formal poetics and empirical performance of sustainable design
- To explore the relationship between an individual architectural project to the making of a neighborhood design.
- To collaborate on the development of an urban design concept
- To learn from outside “clients” and professionals associated with the current development of the site.
ARCH 203

FINAL PROJECT PREPARATION SEMINAR: THESIS

Offered: Fall 2009
Instructor: Renee Chow
Units: 3
Days Offered: Thursdays 3:00 – 6:00
Prerequisites: Graduate Standing

OVERVIEW
Each student develops an individual architectural thesis that is explored through design beginning in the Fall semester and continuing through the Spring in Arch 204. The seminar uses a variety of inquiry modes – inductive, deductive, and most importantly, design – toward the definition of a thesis proposal. Through alternating these modes of inquiry, students define their thesis objectives and significance, the domain in which they see their work contributing, architectural propositions that address the objectives, and metrics by which their designs can be assessed. The class is scheduled so that students will have the “orange form” prepared for submission by the University deadline.

LEARNING OBJECTIVES
The class shares in discussions about topics of common concern: identifying the parts of a thesis, selecting useful precedents, exploring domains, developing representations of proposition, preparing a program, and selecting and analyzing a site. There are weekly assignments around these topics that allow the class to share in critiques while supporting individual thesis investigations. The course develops the written, verbal and graphic aspects of the thesis.

COURSE REQUIREMENTS
Weekly assignments and participation in discussions,

[Developing a thesis] does not run a straight course from the beginning to end. It hunts; and in the hunting, it sometimes worries the same raccoon in different trees, or different raccoons in the same tree, or even what turns out to be no raccoon in any tree. It finds itself balking more than once at the same barrier and taking off on other trails. It drinks often from the same streams, and stumbles over some cruel country. And it counts not the kill but what is learned of the territory explored.

Nelson Goodman, Ways of Worldmaking, ix
ARCH 204

Final Project Studio: Studio Thesis Option

Offered: Spring
Instructor: The Staff
Units: 5
Time: Mondays and Wednesdays 2:00 – 6:00
Prerequisites: Arch 203

Overview
Focused design research as a capstone project for graduate students. Each student develops an individual architectural thesis that is explored through design beginning in the Fall semester in Arch 203 and continuing through the Spring in Arch 204.

Learning Objectives
The development and completion of a design thesis that contributes to domains of each student’s choosing.

Course Requirements
Final Thesis Presentation in April and submission of a written thesis that meets University standards for committee and formatting.
ARCH 205

Final Project Studio: Independent Option

Offered: Spring
Instructor: The Staff
Units: 5
Time: Mondays and Wednesdays 2:00 – 6:00
Prerequisites: Arch 203

Overview
Focused design research as a capstone project for graduate students. Each student develops an individual architectural thesis that is explored through design beginning in the Fall semester in Arch 203 and continuing through the Spring in Arch 205. Students work independent of the thesis studio setting.

Learning Objectives
The development and completion of a design thesis that contributes to domains of each student’s choosing.

Course Requirements
Final Thesis Presentation in April and submission of a written thesis that meets University standards for committee and formatting.
ARCH 207  
INTRODUCTION TO METHODS & CONVENTIONS OF PRACTICE

Offered: Fall 2009  
Instructor: Jill Stoner and the Faculty  
Units: 1  
Offered: Wednesdays 1:00 – 2:00  
Prerequisites: taken in parallel with Arch 201 Comprehensive Studio

OVERVIEW

This 12-week seminar is conducted in support of and in parallel with the Comprehensive Design Studio. The topics covered comprise a set of issues that complement various phases of the design process. Many of the weekly topics are coordinated with the various phases of work in the design studio. The intention is to introduce the broad set of issues that influence the practice of architecture.

LEARNING OBJECTIVES

1: Understand the concept of ‘deliverables and work products.’
2: Cover Sheet for design documents, including: Numbering a drawing set, Project description and ‘scope of work,” Identifying ‘client’ and ‘consultants,’ Abbreviations and symbols, Location plan, North arrow and scales
3: Fee Calculation. What is the relationship of project size to fee? How does the fee get broken up into various phases? How are fees paid to subconsultants?
4: Documents, Part 1 The Contract. What is the legal implication of the contract between architect and owner? What are the most important elements of the contract? What are the Five Phases, their definition, relationship to billing, various players in each phase.
5: Documents, Part 2 Introduction to other official documents including architect/consultant contract, Requests for Information (RFI), Requests for Payment, Change Orders, etc.
6: Codes. What aspects of design are covered by the various codes: Local, State, and National? How are these codes accessed? How are they organized? How does one do a ‘code search?” Emphasis is placed on:
   - Life Safety, particularly access and egress.
   - Contractor responsibilities for site management.
   - Accessibility
7: Legal Challenges. Examination of two case studies that reveal flaws in the initial contract.
8: Consultants. A discussion with a structural engineer or mechanical engineer (invited guest) about the relationship between the design architect and the engineering consultant.
9: Clients. What is the client’s responsibility to the project? What is the architect’s responsibility to the client?
12: Office Management. What is the financial structure of an architecture office? What is the relationship between the amount of work and the number of staff? What are the various staff levels relative to salary? How can an office afford to do ‘pro-bono’ work, and unpaid competitions?

COURSE REQUIREMENTS

The course is graded Pass/notPass.
ARCH 208
INTRODUCTION TO CONSTRUCTION LAW

Offered: Spring
Instructor: Steven Sharafian, Esq.
Units: 3
Days Offered: Wednesdays 12-2
Prerequisites: Graduate Standing

OVERVIEW
This course introduces graduate students to legal and related professional practice issues that often arise during a design professional’s career.

LEARNING OBJECTIVES
Careful practitioners can avoid or mitigate many legal problems through vigilance and loss prevention techniques. Course topics include standard of care; business formation and its impact upon liability; contract analysis and negotiation; intellectual property rights, especially copyright law; BIM; project delivery models, including Design/Bid/Build, Design/Build and Integrated Project Delivery; insurance; and dispute resolution. Teaching methods include case studies; lectures; class discussions; guest speakers from the construction community; take-home exercises; and research projects. The course emphasizes developing and honing many of the analytical and business skills necessary to a successful and responsible professional practice.

COURSE REQUIREMENTS
Participation in discussions and exercises.
SPECIAL TOPICS IN ARCHITECTURAL DESIGN
DIGITAL POETICS & COMPUTER-CONTROLLED MACHINING PRACTICUM

ARCH 209

Offered: Fall 2009
Instructor: Ronald Rael
Units: 3
Days Offered: Tuesdays 2:00 – 5:00 Thursdays 6:30 – 9:30
Pre-requisites: None

OVERVIEW

This research seminar will explore the design, development and fabrication of ceramic architectural components via CAD/CAM fabrication and rapid manufacturing. Investment in a process moving from designing digitally to the creation of physical objects that are rich with material potential at several scales will be the thrust of the course. The seminar will explore various techniques using the Computer Numerically Controlled (CNC) Router as a means to produce formwork for slip-cast ceramics and 3D printing using a clay substrate to produce full scale and scaled fired ceramic building components. Embedded technologies and tectonic expression as well as empirical testing of components for insulative quality, compressive and tensile strength, solar gain will also be explored. The first project will consist of fabricating molds for the production of ceramic proto-building components. The second project will involve the full-scale fabrication of an illuminated ceramic and steel wall system.

LEARNING OBJECTIVES

In exploring the potential of digital craft, the seminar will also examine digital photography, visualization and graphic communication. The primary thrust for discovering new territories of digital production will occur through the introduction of a robust 3D modeling program called Modo, which will be the primary software used in the course. The software is described as the next evolution of 3D modeling, painting, sculpting and rendering in a single package and will be a valuable new tool to your architectural arsenal. It is an advanced polygonal and subdivision surface 3D modeler ideal for precision modeling of mechanical and architectural designs, and for freeform organic modeling. Modo recently released a Rhinoceros translator that makes it possible to move directly from organic modeling to fabrication via CAD/CAM. 2D representation, exploring various media, and video animation will be a necessary outcome for testing and communicating your designs before they are committed to a physical 3D object and shall be explored with equal rigor and sensitivity. Several material techniques will be explored throughout the semester, however the making of molds to construct physical cast and print objects in ceramics will be the thrust of the seminar.

The seminar is comprised of 4 components:
Lectures: covering issues of materials, software, theory and equipment use
Research: students will establish a research agenda
Fabrication: Construction and Fabrication of the proposed system.
Critique: Review and discussion of your research

COURSE REQUIREMENTS

Prerequisites for the class include proficiency in 3D modeling using Rhinoceros. A ceramics lab material fee of $60 and a users fee of $20 will be necessary to produce your projects in the ceramics laboratory in Wurster Hall. A woodshop access fee is also necessary to gain access to the architecture shop.
ARCH 209  
SPECIAL TOPICS IN ARCHITECTURAL DESIGN  
THE CASE OF SUSTAINABLE NEIGHBORHOODS  
Offered: Fall 2009  
Instructor: Harrison Fraker  
Units: 3  
Pre-requisites: None

OVERVIEW
The seminar will be organized broadly into two parts. The first will introduce students to the principles of sustainable urban design using a text by Randall Thomas entitled: Sustainable Urban Design and through a critical analysis of the current “best practices” of sustainable neighborhood design in Europe. It will explore and research the multiple strategies and processes for achieving sustainability, their assumptions, their whole systems integration and their impact on the landscape, architecture and urban design.

The second part of the seminar will put into practice what is learned in the first by undertaking an evaluation of The Treasure Island project by SOM and ARUP and by evaluating the LEED-ND rating system for neighborhoods. The final project will be a power point presentation and report on the performance and lessons learned from your selected neighborhood and its LEED-ND rating.

LEARNING OBJECTIVES
- To explore the principles of sustainable urban development at the neighborhood scale.
- To develop research skills on the empirical performance of sustainable systems – transportation, renewable energy, water, waste, transportation and food.
- To develop an understanding of whole systems – how buildings, landscape and infrastructure can interact in delivering a more sustainable built environment.
ARCH 112 / 212

Body Conscious Design

Offered: Spring and Fall 09
Instructor: Galen Cranz
Units: 3 units
Time: Fridays 2-5
Prerequisites: None

Overview and Learning Objectives

This seminar prepares students to evaluate and design environments from the point of view of how they interact with the human body. Tools and clothing modify that interaction. Semi-fixed features of the near-environment, especially furniture, may have greater impact on physical well being and social-psychological comfort than fixed features like walls, openings, and volume.

Scott's Architecture of Humanism roots architectural theory in proprioception, the body's sense of mass, pressure, volume and orientation in space. Kinesthetics shaped Olmsted's approach toward landscape design. Reformers and therapists from prison authorities to birthing center planners believe in communicating their ideas through and into the bodily experiences of their inmates and participants. Aspects of building science pertaining to perception of comfort ultimately rest on culturally modified ideas about the body. Today designers can help redefine and legitimize new attitudes towards supporting the human body by, for example, designing for a wide range of postural alternatives and possibly designing new kinds of furniture.

This course covers these topics with special emphasis on chair design and evaluation. The public health implications of a new attitude toward posture and back support will be explored. The course will heighten students' consciousness of their own and others' physical perceptions through weekly experiential exercises. Students will produce three design exercises: shoe, chair, and a room interior. The required text is Cranz, The Chair: Rethinking Culture, Body and Design (WW Norton, New York: 2000 paperback).
ARCH 218

HOUSING, URBANIZATION, AND URBANISM IN DEVELOPING COUNTRIES

Offered: Spring
Instructor: Nezar Alsayyad
Units: 4 units
Time: Tuesdays and Thursdays, 12:30 pm-2:00 pm
Prerequisites: none

OVERVIEW AND LEARNING OBJECTIVES
This course is concerned with the study of urban landscapes, some dream-like, some nightmarish. Its purpose however is to unravel the “secret discourses and absurd rules,” the “desires and fears” that undergrid the urbanism of cities. In other words, we will study not only physical landscapes, but also social, economic, political, and cultural ones. Our focus will be the landscapes of housing, our lens will be the processes of urbanization, and our intent will be to investigate the space for action by the professionals of the “urban.”

While the emphasis of the course will be on the diverse trajectories of developing countries, “First World” experiences will also be used to illuminate the specific transnational connections that mark the turn of the century.

COURSE REQUIREMENTS
Students are expected to attend classes regularly and to participate in class discussion.
ARCH 122 / 222  PRINCIPLES OF COMPUTER AIDED ARCHITECTURAL DESIGN

Offered: Fall / Spring
Instructor: Yehuda Kalay
Units: 4
Time:
Prerequisites: Consent of Instructor

OVERVIEW

Architecture is a technology-intensive discipline. It uses technology—both in the process of designing and in its products—to achieve certain functional, cultural, social, economic, and other goals. In turn, technology transforms the discipline. The importance of technology to the discipline and to the practice of architecture has been demonstrated again and again throughout history. In the 21st century, the advent of digital technologies—computer-aided design, computer-assisted collaboration, construction automation, “intelligent” buildings, and “virtual” places—promise to have as much of an impact on architectural design processes and products as earlier technological advances have had. Like most other early adoptions of technology, the first uses of computing in the service of architecture mimicked older methods: electronic drafting, modeling, and rendering. But this rather timid introduction is changing rapidly: new design and evaluation tools allow architects to imagine new building forms, more responsive (and environmentally more responsible) buildings, even radically new kinds of environments that blend physical with virtual space. New communication, collaboration, and visualization tools allow architects, engineers, contractors, clients, and others to work much more closely than was possible before, resulting in more complex, more innovative, and more effective designs. Understanding and shaping this transformation are the basis of architectural design research and education in the 21st century.

LEARNING OBJECTIVES

This course explores and lets students experiment with New Media architectural design technologies. It covers topics such as presentation and re-presentation of architectural designs (sketching, drafting, modeling, animating, and rendering); generating design solutions (generative systems, expert systems, shape grammars, and genetic algorithms); evaluation and prediction (using examples from structures, energy, acoustics, and human factors); and the future uses of computers in architectural design (construction automation, smart buildings, and virtual environments).

COURSE REQUIREMENTS

A weekly lab session (1.5 hours) introduces REVIT, a state-of-the-art architectural software for building information modeling (BIM). Coupled with BIM-Game, the building designed by each student can be ‘inhabited’ in real-time, in a game-like manner. The end product of the course are physical scale models, fabricated using computer-controlled laser-cutter, and placed on a ‘site’ to form a neighborhood made of all students’ houses.
ARCH 127 / 227

DESIGNING VIRTUAL WORLDS

Offered: Spring
Instructor: Yehuda Kalay
Units: 4
Time: Tuesday & Thursdays 4:00 – 5:30
Prerequisites: None. The course is open to students from other departments.

OVERVIEW

Internet-accessible Multi User Virtual Environments (MUVEs) are a new type of ‘place,’ made possible through Web 2.0 technologies: an alternative to physical places, where people shop, learn, are entertained, and socialize. They provide unprecedented opportunities to architects, social scientists, archeologists, historians, journalists, computer scientists, game designers, film-makers, and other professionals, to create and inhabit web-accessible virtual worlds. Such worlds can be re-creations of physical places and culturally-significant human experiences that have existed in the past (like 1950s West Oakland or Medieval Cairo); or future places, yet to be built (as architectural CAD does); or they can be imaginary places, in the form of games like World of Warcraft and Lineage, or alternative realities like Second Life.

Such virtual places have once been the province of science fiction writers (like Neil Stephenson’s 1992 Snow Crash and William Gibson’s 1984 Neuromancer). But advances in computing, telecommunication, and our experience with the Web have made them possible and increasingly relevant, real, and economically viable. Video games are a multibillion dollar industry, which encompasses dozens of disciplines and employs thousands of people worldwide. Online shopping, education, entertainment, and other human activities that have traditionally taken place in physical venues are migrating to cyberspace.

Virtual places are used for similar types of activities that ‘take place’ in physical places, performed by human beings (or their proxies). Therefore, they must be designed according to the same principles that guide the design of physical places, including form-related aspects (what do they look like?), social aspects (what kinds of social and cultural interactions do they support?), and phenomenological aspects (what does it feel like to ‘be’ there?). At the same time, natural and man-made laws that govern physical space do not always apply in cyberspace: gravity can be suspended, there is no climate to control, solid objects can be penetrated at will, and great distances can be traversed instantly. The design of virtual places, therefore, needs to reconcile the familiar with the possible, and result in places that are appropriate for their own intended functions and inhabitants.

LEARNING OBJECTIVES

This course examines both the theoretical and technical aspects of creating virtual places, and allows students to design and experience virtual places. The course combines architectural place-making theory, online games technology, and cultural/social issues into a comprehensive and innovative whole. It provides students with the opportunity to learn how to create web-accessible, immersive, interactive, inhabitable places that can accommodate many visitors, and respond to some aspects of their lives, such as cultural heritage, education, commerce, or entertainment.
ARCH 229

SPECIAL TOPICS IN DIGITAL DESIGN: THEORIES AND METHODS
ARCHITECTURE & CERAMICS

Offered: Fall 2009
Instructor: Ronald Rael
Units: 3
Days Offered: Tuesdays and Thursdays 1:30 – 3:00
Prerequisites: Arch 100A and B or Arch 200A and B

OVERVIEW
This research seminar will explore the design, development and fabrication of ceramic architectural components via CAD/CAM fabrication and rapid manufacturing. Investment in a process moving from designing digitally to the creation of physical objects that are rich with material potential at several scales will be the thrust of the course. The seminar will explore various techniques using the Computer Numerically Controlled (CNC) Router as a means to produce formwork for slip-cast ceramics and 3D printing using a clay substrate to produce full scale and scaled fired ceramic building components. Embedded technologies and tectonic expression as well as empirical testing of components for insulative quality, compressive and tensile strength, solar gain will also be explored. The first project will consist of fabricating molds for the production of ceramic proto-building components. The second project will involve the full-scale fabrication of an illuminated ceramic and steel wall system within a given budget for actual site installation.

LEARNING OBJECTIVES
In exploring the potential of digital craft, the seminar will also examine digital photography, visualization and graphic communication. The primary thrust for discovering new territories of digital production will occur through the introduction of a robust 3D modeling program called Modo, which will be the primary software used in the course. The software is described as the next evolution of 3D modeling, painting, sculpting and rendering in a single package and will be a valuable new tool to your architectural arsenal. It is an advanced polygonal and subdivision surface 3D modeler ideal for precision modeling of mechanical and architectural designs, and for freeform organic modeling. Modo recently released a Rhinoceros translator that makes it possible to move directly from organic modeling to fabrication via CAD/CAM. 2D representation, exploring various media, and video animation will be a necessary outcome for testing and communicating your designs before they are committed to a physical 3D object and shall be explored with equal rigor and sensitivity. Several material techniques will be explored throughout the semester, however the making of molds to construct physical cast and print objects in ceramics will be the thrust of the seminar.

The seminar is comprised of 4 components:

Lectures: covering issues of materials, software, theory and equipment use
Research: students will establish a research agenda
Fabrication: Construction and Fabrication of the proposed system
Critique: Review and discussion of your research

COURSE REQUIREMENTS
Prerequisites for the class include proficiency in 3D modeling using Rhinoceros. A ceramics lab material fee of $60 and a users fee of $20 will be necessary to produce your projects in the ceramics laboratory in Wurster Hall. A woodshop access fee is also necessary to gain access to the architecture shop.
ARCH 133/233

ARCHITECTURES OF GLOBALIZATION
CONTESTED SPACES OF GLOBAL CULTURE

Offered: Fall 2004, Spring 2007, Fall 2008, Fall 2009
Instructor: Greig Crysler
Units: 3
Time: Tuesdays and Thursdays 2:00 – 5:00
Prerequisites: None

OVERVIEW

Over the last four decades the world’s cultures, political economies, and built environments have been drawn into new relationships by the wide-ranging changes associated with globalization. Cities have acted as important contexts for these processes, through their strategic roles in an increasingly interdependent world economy. As a consequence, much of the critical writing on globalization shares an implicit or explicit frame of analysis: the globalizing city and its built environments. This course will provide a comprehensive introduction to this interdisciplinary research, through case studies from around the world. We will seek to understand the diverse and contradictory positions that characterize this rapidly expanding field, and explore its relevance to architectural education, research and professional practice.

Readings and class discussions are organized thematically, and in relation to specific urban contexts architectural culture, and include the following: Celebrity and the Global Architect (New York and Berlin); Brandscapes and Spectacle (Las Vegas); Globalization and the Postcolonial City (London and Vancouver); Border Cities and Uneven Development (Tijuana and San Diego); Migration and Urban Citizenship (Beijing); Risk and Disaster Capitalism (New Orleans and Baghdad); Violence, Fear and the City (New York City and Mumbai). The course concludes with a student-led roundtable on ethics and activism in architecture.

LEARNING OBJECTIVES

1) to develop critical reading, writing and research skills, through weekly assignments and a research paper
2) to enhance speaking skills through class presentations and regular participation in discussion
3) to provide an introduction to interdisciplinary scholarship on globalization as a contested process, and to consider its relevance to architectural design, education and practice
4) to explore course issues comparatively, through case studies of national contexts, urban regions and their built environments
5) to situate globalization historically, and to understand its impact on traditions of built form and urbanism
6) to draw upon the diverse experiences and national backgrounds of CED students to construct situated understandings of the different, but interconnected contexts of architectural production and use in the global present

COURSE REQUIREMENTS

* Reading Responses: A weekly response to one (or all) of the assigned readings of approx. 150 words
* Research Paper: A research paper of 10-12 pages in length; the may be developed from one of the thematic sections in the course materials or link ideas from several together. A bibliography and 250 word proposal (one page, double-spaced) and point form skeleton outline up to five pages in length, listing sub-headings and major points, are also required at dates as specified during the semester.
* Presentation: Assist in leading discussion related to readings for one class. Depending on enrollment, students may work in pairs or small groups.
ARCH 136/236  

THE LITERATURE OF SPACE

Offered: Fall 2008 /Spring 2010
Instructor: Jill Stoner
Units: 3
Time: Tuesdays 5:00 – 8:00 pm
Prerequisites: None

OVERVIEW
The concept of space as it is applied to the fields of architecture and urbanism can be understood as a barometer of the condition that we call "modernity." This course will explore connections between the larger cultural frameworks of the past century, and the idea of space as it has been perceived, conceived and lived during this period.

Adrian Forty’s essay on “Space” (Forty, 2000) provides an entry into the literature of the course. The course reader opens with this text, and includes some of Forty’s references, to which are added other key works from the disciplines of philosophy, geography, architecture, landscape, and urbanism. The readings are grouped according to themes that are in turn tied to the idea of space as a modern phenomenon. The themes will form the foundation for weekly seminar discussions.

One reading from each group belongs to the consecutive decades of the 20th century. This structure is balance by thematic readings that are not chronological—thus revealing both the force of history upon the conceptualization of space, and its contradictions. This duality further clarifies a key theme within much of the literature—the replacement of history with geography as an essential quality of modern condition.

In addition to the theoretical readings, each week’s selection includes a work of twentieth-century short fiction, thus complementing the intellectual content with ‘literary’ illustrations of spatial concepts. Additional recommended readings will be on reserve in the library.

LEARNING OBJECTIVES
- To understand the relationship between the concept of “space” and the condition of modernity.
- To become familiar with key texts from a range of disciplines, and to explore the interdisciplinary themes that connect the texts. In particular, the course material explores links between the design disciplines of architecture, landscape architecture and planning, and the theoretical disciplines of geography and philosophy.
- To understand how architectural precedents engage larger cultural developments.
- To compare the spatial traditions of the West with the traditions of other cultures.
- To learn to prepare a research paper as a sequence from abstract and bibliography, through draft form, then as a revised final text.
ARCH 237

ULTERIOR SPECULATION: MONOGRAPHS AND MANIFESTOS

Offered: Fall
Instructor: Richard Fernau
Units: 3
Time: Tuesdays 6:00 – 9:00 pm
Prerequisites: Graduate Standing or Consent of Instructor

OVERVIEW

If architectural publishing in the first half of the twentieth century was characterized by the manifesto, the second half was characterized by the monograph and the current moment by a hybrid of the two. (The turning point in the first instance it might be argued was Venturi’s, “Complexity and Contradiction,” and in the second Koolhaas’, “S,M,L,XL.”)

What makes the monograph distinct from the manifesto is that although it can take many forms and express a wide range of intentions (from intellectual discourse to self-promotion) it is always grounded in practice. Recently, however, the monograph has begun to be transformed into a vehicle for design exploration if not an ideological design statement in itself.

Starting with a brief examination of the roots of the contemporary monograph in the manifestoes of early modernism and postmodernism, the course will turn its focus to recent developments in the monograph form, from Koolhaas to the present. The class will analyze the possibilities and limits of grounding a discourse in practice as well as in theory. In particular, the seminar will examine the relationship between publishing and practice in establishing the contemporary “Dutch School.” With the exception of a few canonical texts the content changes from semester to semester.

LEARNING OBJECTIVES

The course is not a survey but rather cuts a path through architectural theory that allows individual choice and demands a close study of ideas. Consequently, the seminar compliments thesis preparation and, or, can serve as an introduction to critical thinking in architecture.

COURSE REQUIREMENTS

The seminar is rigorous; each student will be expected to co-lead at least one seminar on the work and ideas of an architect as framed by their monograph. In addition there will be a number of one to two-page written assignments. Enrollment is limited to 8-12 students. Interested students are advised to contact the professor: rfernau@berkeley.edu.
ARCH 238  THE DIALECTIC OF POETICS AND TECHNOLOGY

Offered: Fall alternating between Louis I Kahn or Le Corbusier
Instructor: Susan Ubbelohde
Units: 3
Time: Thursdays 1:00 – 4:00
Prerequisites: None

OVERVIEW
This seminar examines the relationship between technology, design philosophy and the realities of practice in the work of architects through analysis of individual buildings within the context of the complete oeuvre and an examination of the architect’s writings and lectures. The relationship between the polemic and performance in regard to climate, daylight, materials and structure are of particular interest.

LEARNING OBJECTIVES
- What is the role of technology or building science in the design philosophy of the architect?
- How is this theoretical position established in the architect’s writings, lectures, interviews etc?
- How is this position revealed through the sequence of design work produced by the architect?
- Does this position change when the work moves away from the architect’s home base?
- (to another country, to the developing world)
- How is this position negotiated with the client and in the design and construction of a given building?
- Is this negotiation a successful strategy for achieving technical performance?
- Is this negotiation a successful strategy for achieving a coherent theoretical statement?

COURSE REQUIREMENTS
There will be a series of lectures exploring these questions in relation to the architect and a set of required readings that introduce the work of the architect and explore the relationship between technology and design philosophy. Students will choose one building to investigate in parallel with the methods and issues discussed in class. These studies will be presented in class as completed and assembled for submission as a final project. Attendance, readings and participation are required each week.
ARCH 243
NATURAL COOLING AND SUSTAINABLE DESIGN

Offered: Spring 2004, Spring 2008
Instructor: Gail Brager
Units: 3
Days Offered: Tuesdays and Thursdays 2:00 - 3:30
Prerequisites: Arch 140 or equivalent

OVERVIEW
The course focuses on a wide range of passive cooling strategies and their treatment in architectural design for both residential and commercial applications. The class discusses how climate-responsive buildings minimize the use of energy and its associated ecological impacts, and allows people to have a greater degree of interaction with their environment. The premise is that this person-centered design approach can create comfort and delight within the indoor environment, and be healthier, more connected to place, and more sustainable than sealed structures that rely almost totally on mechanical systems. We discuss both vernacular and contemporary examples of climate-responsive design in overheated climates, in terms of the various stages and scales of building design.

LEARNING OBJECTIVES
How can comfort- and climate-responsive design contribute to an experiential aesthetic, while simultaneously reducing energy use? How can one design for zero- and low-energy cooling in both residential and commercial scale buildings? What are the latest trends in “mixed mode” (mechanical cooling + natural ventilation) and radiant cooling (both are more common in Europe, but are receiving increasing attention here in the U.S)? What does integrated design mean for low-energy envelopes and mechanical systems? What LEED guidelines are most relevant for design and operation of low-energy buildings for hot climates? What analysis methods, ranging from simple to complex, are there for predicting the performance of passive cooling strategies? What do we know about how existing green buildings are actually working?

COURSE REQUIREMENTS
Throughout the course we use case studies, and design and analysis exercises, as tools for exploring these questions. Local green buildings and design professionals will give us opportunities for field trips and guest presentations. Students may also be able to use the Building Science Wind Tunnel to explore design solutions for natural ventilation, using existing real-world projects. Assignments will have built-in flexibility to accommodate students’ diverse backgrounds and interests, allowing investigations of vernacular or contemporary architecture, small to large-scale buildings, envelopes or systems.
ARCH 244

Offered: Spring 2005, Fall 2005, Fall 2008, Fall 2009
Instructor: Charles C. Benton
Units: 3
Days Offered: Thursdays 2:00 – 5:00
Prerequisites: Arch. 140 or equivalent

OVERVIEW

This exploratory seminar addresses a secret life of buildings, one related to physical performance. Think of a building that has been influential in your architectural development. How much do you know about the physical environment it creates? Its amenities as viewed from an occupant’s perspective? The energy it consumes?

The seminar emerged from the VITAL SIGNS Project, a U. C. Berkeley curriculum materials development effort from a few years back funded by the Energy Foundation, NSF, and PG&E (see http://arch.ced.berkeley.edu/vitalsigns/brief/index.html). Vital Signs encouraged architecture students to examine architectural, lighting, and mechanical systems in existing buildings with attention to energy use, occupant well-being, and architectural spacemaking. We assembled a collection of measurement techniques, often involving novel approaches, to reveal operating patterns in the complex environment of contemporary buildings.

The VITAL SIGNS approach applies these techniques to profile buildings in operation. In this process, existing buildings serve as laboratories and offer interesting lessons on the success and failure of various design methods. The approach has a number of benefits. The personal experience you gain in performing the evaluations contributes to your experiential base at a formative time. Analysis of data collected in the field and the comparison of these data to values given by simulation tools provides a foundation for understanding the more abstract tools and standards used by designers in practice. Finally, you can share these experiences with other students and schools in the form of written case studies.

The class will conduct a series of case study exercises involving the collection of background information, the survey of those associated with the building (e.g. designers, operators, occupants), the measurement of physical parameters, analysis, and the writing of short reports. As in the previous offering of the course we will focus some attention on Wurster Hall with the goal of understanding its energy use patterns and then reducing consumption. If we are to talk the talk we must walk the walk.

The course is structured around a series of field assignments and a collection of portable measurement equipment. We will conduct several measurement projects, some conducted by teams, addressing issues from lighting control patterns to thermal comfort. The final project will address a topic of the student’s selection. The course will also include a series of experiential exercises designed to increase a designer’s awareness of the physical environment as an architectural element. The Secret Life of Buildings is conducted as a seminar and will mix presentations by the instructor with discussion, student presentations, class demonstrations, project reviews and guest speakers. We will take advantage of the remarkable larders of hand-held instrumentation belonging to U. C. Berkeley’s Building Science Laboratory and PG&E’s Pacific Energy Center. Class presentations will cover the basic skills required to complete monitoring assignments. Students will submit concise reports carefully describing the objectives, methods, data, and findings of each field investigation. Project reports will also be presented in class and posted on the www.

LEARNING OBJECTIVES

In conducting post-occupancy evaluations, students engage and appreciate many of the complexities of building delivery and management. Students examine issues of environmental system performance and the integration of building controls in the context of measured energy use and occupant response. Understanding the underlying causes of poor performance provides knowledge useful in sustainable design. The course requires students to research building codes and standard practices as well as collaborate on group projects.
ARCH 245 DAYLIGHTING

Offered: Spring 2005, Fall 2005, Fall 2008, Fall 2009
Instructor: Charles C. Benton
Units: 3
Days Offered: Tuesdays & Thursdays 11:00 – 12:30
Prerequisites: Arch. 140 or equivalent

OVERVIEW

This exercise-based seminar explores qualities of daylight with attention to understanding the physical and perceptual mechanisms that shape our experience of daylight. Students use three-dimensional models as a tool for the investigation of daylight in buildings. The distribution of natural light in architectural space is a particularly complex phenomenon that defies realistic numerical analysis. In contrast to the complexity of a computer simulation, physical models offer a practical tool for understanding natural light in architectural space. Well suited to the skills of an architect, this technique can be used at all stages of the architectural design process. Models can predict a design's performance in quantitative detail and provide immediate visual information for assessment of qualitative issues. Student work will include the construction and analysis of daylighting models as well as a series of exercises designed to hone students' capacities to observe and understand light.

This course brings physical models, photography, and the powers of observation to bear in exploring the role of daylight in architectural space. The course has four major objectives: (1) to investigate models as tools for building performance analysis, (2) to discuss qualitative issues in daylighting with attention to the predictive powers of models, (3) to learn the basics of photometrics and (4) investigate the role of perception in designing with daylight. In meeting these objectives, the course will interweave discussions of daylighting as an architectural element with technical information concerning the measurement, documentation and analysis of light. Architectural issues will include perception, vision, daylighting techniques, precedents and codes. Technical presentations in support of modeling will cover photometrics, data acquisition techniques, and model photography.

TEACHING METHODS

The class will be conducted as a seminar and will mix lecture presentations by the instructor with student presentations, class demonstrations, slide presentations, project reviews and guest speakers. Class presentations will cover the basic skills required to complete student modeling assignments. Reading assignments will be issued from the course bibliography. There is no required text.

LEARNING OBJECTIVES

The class first seeks to expand student capacities to see and evaluate daylight in architectural space. It examines daylighting as a strategy for sustainable building design while addressing system integration issues for control and energy conservation. Students learn to assess daylighting and fenestration systems across performance criteria including visual comfort, solar shading, three-dimensional modeling, and ease of control. Students develop collaborative and communications skills in completing the class exercises.

COURSE REQUIREMENTS

The course is structured around a series of modeling assignments. The best way to learn modeling is by building and studying models. The exercises are sequenced to introduce increasingly complex issues using models built to represent both existing and hypothetical spaces. The construction of models as group assignments and the reuse of models will keep student time commitments to a reasonable level. The course will also include a series of experiential exercises designed to increase a designer's awareness of light as an architectural element.
ARCH 249

SPECIAL TOPICS IN ENERGY AND ENVIRONMENT
HIGH PERFORMANCE FACADES

Offered: Spring 2007, Spring 2009
Instructor: Susan Ubbelohde
Units: 3
Days Offered: Wednesdays 9:00 – 12:00
Prerequisites: Arch 140 or equivalent

OVERVIEW

Are the aesthetics of transparency necessarily in conflict with thermal and visual performance of the building skin? Is it possible to make a good glass building? How transparent can the building skin be and still be good for the occupants behind the glass? What can daylighting and solar control contribute to the design of a high performance building envelope?

In this class we will develop answers to these questions. Initial exercises will focus on defining performance criteria for high performance building skins and looking at recent high tech buildings. Working in teams, the class will address the challenge of designing a high performance façade consistent with the desires of architects and clients in contemporary practice. In an iterative process, the initial designs will be developed through evaluation and redesign under four topics: energy use, human comfort, amenities and practice. Guest lecturers with expertise in research and practice, field trips, readings and faculty lectures will increase the knowledge base and tools with which to approach the performance evaluation and redesign for improved performance.

The course will have the benefit of collaboration with Steve Selkowitz, Eleanor Lee and other researchers from the Building Technologies Department of Lawrence Berkeley National Labs. Such collaboration offers the course background lectures, access to current research and introduction to lab facilities used in thermal and lighting performance evaluations.
ARCH 249

GREEN STUDIO COMPANION: GENERATIVE TOOLS FOR BIOCLIMATIC DESIGN.

Offered: Fall 2009  
Instructor: Brendon Levitt  
Units: 2  
Days Offered: Mondays 7:00pm – 10:00pm  
Prerequisites: Arch 140 or consent of instructor.

OVERVIEW
This seminar explores the potential of both analytical and phenomenological notions of building performance to shape architectural design. The class will focus on deriving sustainable strategies from an understanding of human perception and response in a quick and generative fashion.
Quantitative analysis using calculations and simulations will alternate with speculative explorations based on responses to theoretical texts, art films, and environmental artists’ work. Both of these “right brain” and “left brain” modes of analysis will inform short design interventions.

The term project will be completed in teams and involve analyzing and redesigning select components of a prominent case study building. The project is divided into four parts: climate, heat, air, and light. Each topic will be analyzed using a quantitative method one week and a qualitative method another week. At the same time, project teams will incrementally redesign components of the case study in order to apply the principles and poetics that they’ve discovered. Weekly presentations, discussions, and critiques will help guide and refine the process. The use of alternate analysis and simulation techniques are strongly encouraged with prior approval of the instructor.

LEARNING OBJECTIVES
- To work with different notions of predictive performance and human perception.
- To learn ways of improving performance and occupant comfort while studying heat, air, and light.

COURSE REQUIREMENTS
Grades will be given based on the term project and in class participation. The term project will consist of 9 parts that are all graded equally (two each for climate, heat, air, and light, plus the final presentation). Because it is a team project, students will evaluate their partners’ contributions for each phase and this may affect their grade, subject to the instructor’s discretion.
ARCH 255

STRUCTURE, CONSTRUCTION AND SPACE

Offered: Spring 2009, Spring 2010
Instructor: Gary Black
Units: 3
Days Offered: Tuesdays 5:00-8:00
Prerequisites: Arch 150 (can be taken concurrently and is open to undergraduates seeking a minor in engineering or upon review of their prior course work)

OVERVIEW

In profound buildings the structural system, the construction materials and the architectural form work in unison to create an integrated work of art. Current practice segregates these three areas by assigning separate and often rigid roles to (i) the engineers, (ii) the contractors, and (iii) the architects. The goal of this class is to blur these traditional boundaries and erase the intellectual cleft through hands-on experience.

Students are given weekly assignments - a case study one week followed by a design problem the next which focuses on the structure construction and spatial aspects of wood, concrete and steel. Each assignment is geared to help students learn how to employ structural issues and construction techniques as powerful design determinates in the pursuit of architectural form, and help them learn how to integrate these three aspects of every building project and maintain a leadership role in the entire design process. A final (4 week long) design problem is given which requires students to integrate the material from the course.

LEARNING OBJECTIVES

- To learn how to use structural theory and structural design principals in the pursuit of architectural form.
- To learn how construction techniques and choice of construction materials impact the architecture and how these can be used to enhance the design.
- To learn how building structures are designed in each of the principal construction materials (wood, concrete and steel).
- To explore “structure” and “envelope” in case study and design problems.
- To learn how buildings are “put together,” as an assembly of building materials each with different and/or similar functions.
- To learn how to consider life safety in the design of buildings.

COURSE REQUIREMENTS

3 case study assignments followed by 3 design problems each one focused on a different building material followed by one design problem requiring students to integrate the structure the construction and the space. Grade is based on case study and design projects. No quizzes, exams or other homework beyond the case studies and design projects will be required.
ARCH 256

Offered: Spring
Instructor: Gary Black
Units: 1-3
Days Offered: Tuesdays 7:00-10:00
Prerequisites: Arch 150 or Equivalent course work

OVERVIEW

The best way to learn how to incorporate structural thinking into a design is to experience doing that in a design project that one cares deeply about. “Structures in the studio” was devised to accomplish this goal. The enrollment is strictly limited to a maximum of TEN students per year to insure adequate time for quality one-on-one teaching. Students with the highest chance of acceptance into the course are either engaged in a design studio that is focused on building designs (not urban planning projects) or a thesis project that looks at buildings or other kinds of structural forms.

Each class begins with a 30 minute discussion about a structural topic that has arisen around one of the student projects. Everyone participates in the discussion and the instructor uses this opportunity to explain higher level structural theory. The class then breaks up and each student returns to their studio desks where they will be met by the instructor and engaged in a one on one dialogue concerning the structural aspects of their particular design project. An assignment geared to help the student solve a pressing problem is typically given during one of these sessions. In this course each student has the opportunity to learn from other students in the class (through the group discussion and class presentation) and has a structural mentor to help them in their design project throughout the semester. Students can take the course for 1-3 units depending on the depth of structural involvement they wish to engage in (see below for requirements).

LEARNING OBJECTIVES

- To learn how to research structural concepts, such as Maxwell least weight frameworks, Lamella structures… and incorporate relevant theories into the design project.
- To learn how to incorporate structural thinking and structural design into the design project.
- To learn which structural systems are more relevant to the particular design project.
- To be aware of life safety issues regarding structural design and how that awareness influences design decisions.
- To become versed in different building materials and structural assemblies and learn how to select the most appropriate for a particular project.
- To learn how to integrate structures into a design project to make the overall design more comprehensive.

COURSE REQUIREMENTS

Course requirements vary depending on the units. For 1 unit the student is required to prepare a schematic structural design which is fundamentally sound. For 2 units the student completes the requirements for 1 unit plus they perform some structural calculations under the instructor’s direction to confirm that the structure is viable, to obtain preliminary sizing information, and to determine with more rigor just how the structure would perform. For 3 units the student completes the requirements for two units plus they perform a computer aided finite element analysis of their structure, sizing some of the members and designing a few key connections.

For ALL students the following is also required

- A written paper at the end of the course chronicling the design process. The paper is essentially a compilation of the early sketches up to the final design with a few descriptive words. The specific requirement is to illustrate how the structure was integrated into the design.
- Bi-weekly assignments given at the end of the individual reviews which are tailored to the direct needs of the student at that point in time. Depending on the number of units this could include researching a structural concept and reporting on it, preparing a structural diagram in plan, section, elevation or model, or performing a SAP analysis for review at the next individual review session.
- One presentation to the class (following the studio mid-review) which focuses on the structural aspects of the project. This is a time to obtain valuable input from colleagues who are struggling with similar issues.
ARCH 260
INTRODUCTION TO CONSTRUCTION/GRADUATE LEVEL

Offered: Fall
Units: 3
Days offered: Tuesdays and Thursdays 12:30 - 2:00
Prerequisites: None

OVERVIEW
This course addresses the methods and materials of construction at an introductory level. While students will not be expert at the end of the semester, the course should give each the confidence to feel comfortable on a construction site or when designing a small building for studio, and a hunger to continue to learn.

LEARNING OBJECTIVES
The course focuses on 4 major territories:

• The performance and use of the most common structural materials, with some discussion of alternative approaches to these materials;
• Materials that make up the skin, or envelope, of the building (interior and exterior finishes in the walls and roof, internal materials that enhance building performance, windows and doors);
• Professional context for practice: e.g., codes, accessibility concerns, and legal norms;
• The relationships between architects and other members of the construction community, and factors that influence these relationships, such as budgets.

In the first half of the semester, these topics will be designed to look at the norms of construction in single-family detached housing (heavy timber, wood studs and light gauge steel framing, and the use of steel beams or columns in conjunction with a wood frame), that is practices which are generally guided by prescriptive codes. The second half of the term will be directed at the use of materials common in small commercial and institutional structures, steel frame and concrete systems, applying the principles discussed earlier; these are guided by performance codes.

COURSE REQUIREMENTS

• Two weekly lectures, using images of construction sites and completed buildings
• Three tests (15% each) during the semester.
• Short assignments (5% each) and a longer final report (35% of course grade) based on observations of an existing construction site or alternatives that are already built.
ARCH 264  
OFF-SITE FABRICATION

Offered: Fall 2004, Fall 2005, Fall 2008  
Instructor: Dana Buntrock  
Units: 3  
Days offered: Wednesdays or Fridays 9:00 – 12:00  
Prerequisites: Arch 160, Arch 260 or Consent of Instructor

OVERVIEW AND LEARNING OBJECTIVES

This seminar takes a closer look at the implications of off-site fabrication in architectural production.  

There are many arguments for exploiting manufacturing and fabrication opportunities off-site.  By working in a consistent, protected environment, worker efficiency and safety are increased, and constructions using different skills are easier to coordinate.  Construction periods can also be shortened, as work is done simultaneously rather than sequentially.  Completion dates may even be more predictable with off-site construction.  Additionally, semi-repetitive production may mean that semi-skilled labor can be used, resulting in significant cost savings.  Alternatively, off-site fabrication can allow for increased refinement, because controlled conditions allow for tighter tolerances and the process allows for trial assembly, testing and modification in a way not usually possible on site.  Finally, those who advocate an "act local" approach note that local production can enhance the diversity of architecture and contribute to regional economies.  However, it is also possible to use off-site fabrication to create a monotonous sameness.

In North America, off-site fabrication tends to be seen as most useful in highly complex buildings (such as skyscrapers), buildings with difficult construction conditions (tight urban sites, hostile climates or building sites with insufficient local labor), and as a way to achieve significant cost savings in highly repetitive buildings (many franchises use off-site production, including Marriott, McDonalds, and Amoco).  The fact that off-site fabrication can be exploited to create cheap, monotonous landscapes has made its exploitation unpopular with North American intellectuals, but this prevents us from developing a rich understanding of the successes achieved by architects.

This course moves through three steps: in the initial weeks, we look at precedents for off-site fabrication in architecture and construction, establishing an intellectual framework for subsequent work.  Following this, we look more closely at some common opportunities for off-site fabrication today.  Finally, students will present their own research on local fabrication opportunities.  This research includes a detailed report on fabrication opportunities, based on interviews with architects and fabricators.

During the course of the semester, readings and visits to fabricators allow sufficient opportunity for everyone to develop a clear sense of the way off-site fabrication fits into architectural production.  Students are not expected to have practice or construction experience for this class, although those who do will have an advantage.  By the end of the semester, they have developed an understanding of the various ways that off-site fabrication fits within design and construction systems, from approaches that cheapen design to those that result in refined architectural output.

COURSE REQUIREMENTS

The course has four major points I think important to evaluate: observing fabrication, understanding why and how fabrication fits into architecture, thoughtful research, and sharing your insights with others.  Three field trip-related assignments at 10% each and a final research paper in four stages: proposal, draft, oral presentation and final.
ARCH 265

JAPANESE CRAFT AND CONSTRUCTION

Offered: Spring 2005, Spring 2009  
Instructor: Dana Buntrock  
Units: 3  
Days offered: Fridays 9:00 – 12:00  
Prerequisite: Arch 150, Arch 160, Arch 260 or Consent of Instructor

OVERVIEW AND LEARNING OBJECTIVES

This class uses close study of a building under development or recently constructed by a Japanese architect to introduce ideas about the intersection of culture, technological innovation, and available resources. The class has been taught four times, and in all cases students have come away with a deeper understanding not only of Japanese architecture, but also of professional practice and construction technology. In my mind, there are two mechanisms which can lead to successfully achieving satisfaction in the class (in addition to those often found in seminars, such as readings, library-based research, and discussion): first, the trip to Japan allows students to experience architecture and engage in discussions with leading practitioners at a level which is not often found in an academic context; and second, students engage in primary research and reach original conclusions, rather than simply relying on secondary sources of material.

Students work in a group, preparing a final report and presentation on a specific feature of a project. Before we go, they collect background information and prepare questions; while in Japan, they collect further documentation and interview the architect, architect’s staff, and appropriate members of the design and construction team; following our visit, they prepare and present a report of findings.


COURSE REQUIREMENTS

Class meets one day a week for three hours in a combination of lectures and discussion, then travels to Japan as a group over Spring Break. Each group visits construction sites, architects’ offices, and engineers; in 2003 and 2005, the class also visited Takenaka Komuten’s research facility in Chiba Prefecture.
ARCH 269

SPECIAL TOPICS IN CONSTRUCTION AND MATERIALS
NO MONEY DOWN, AND THE WATER’S FINE: URBAN WATER SEMINAR

Offered: Fall 2009
Instructor: Mark Anderson
Units: 3
Time: Wednesdays 9:00 – 12:00
Prerequisites: None

OVERVIEW

The business of architecture often attempts to justify its role in the economy by describing itself as a profession of efficient problem solvers. Although few clients believe this and actually bet their money on it, the concept still warps the profession in many ways. This is a complicated issue related to many questions of how to work as an architect in positive and meaningful ways. Designing our lives and working methods as creative architects is a much more complicated project than meets the eye. The real and perceived business role of the architect working within the construction economy is a background issue that haunts all architecture projects. We will not solve any of those questions in this seminar, but we will fight back against our powerlessness: we will build the biggest possible construction without spending a nickel, asking nobody for permission. According to popular economic theory, this will not do one good thing to help the economy—but we’re not buying that either.

EPRF

I have a plan. But since we are asking nobody’s permission, it also follows that you should feel free to deviate from my plan, or to throw it out altogether in favor of some more radical plan of your own making that is even more powerful and theatrical than every possibility that I am imagining. In either case our plan must be bold, spectacular and effective. I would also like to stipulate that—fairly or unfairly—nobody gets hurt.

This is what I am thinking: EnormousPlasticRainFlower. We shall build an enormous plastic rain flower that will capture and purify drinking water from the sky. It will look ridiculous of course, and significantly so. Beautiful and grotesque, our flower will further serve as a wide-spreading public umbrella tree drawing people to gather under its shelter, protected from the sky’s harshness even while succored by its fruit. Like a flower blossoming from cow dung, this machine-flower of human sustenance will blossom from the fertile waste of excessive human consumption. Our flower will be constructed purely of plastic water bottles, sugared beverage containers, and other scrap plastic constructions, stitched together with screw-top cap bolts and structurally layered as translucent, crystalline pistils and petals funneling sunlight and rain drops into cored plastic stems of tuberous filtration drawing downward into threaded, clinging roots spitting small fountains of sweet rainwater sucked freely by passersby delighted by the novelty of drinking water cut free from intercontinental transport, commerce and cash. That’s it, simple and pure—one material, multi-purpose, full with questions and possibilities. How tall can this reach and how far can it spread? What will it look like and where might it grow? Did I mention that this is a seriously purposeful study in structure, construction and materials—EPRFTM, and all of that?

Join the conversation at http://enormousplasticrainflower.blogspot.com
ARCH 281  METHODS OF INQUIRY IN ARCHITECTURAL RESEARCH

Offered: Fall
Instructor: Nezar Alsayyad / Gail Brager
Units: 4
Time: Wednesdays 9:30 – 12:30
Prerequisites: M.S. or Ph.D standing or Consent of Instructor

OVERVIEW & LEARNING OBJECTIVES
This introductory course is required of all entering Ph.D. and M.Sc. students in all areas of the program. The course will train students in pre-dissertation and pre-thesis research strategies by exposing them to a variety of methods of inquiry, including the nature of scholarly research, the nature of evidence, critical reading, and content analysis. We will give considerable attention to the process of writing, presenting, and illustrating scholarship in the various disciplines of architecture.

COURSE REQUIREMENTS
This is principally a seminar course with the faculty as discussion leaders. The course requires intensive weekly meetings and 4-7 readings per week which serve as the basis for class discussions. The last 2-3 weeks will be devoted to student presentations of research topics. Note that readings and homework assignments are due on the week noted. The homework assignments are based directly on the reading material, and so students are encouraged to complete the reading early in the period in which it’s assigned.
ARCH 300  SEMINAR IN THE TEACHING OF ARCHITECTURE

Offered: Fall / Spring  
Instructor: Dana Buntrock  
Units: 2  
Days offered: Fridays 9:00 – 12:00 (Sp. ’08) / Tuesdays 6:00 – 9:00 (Fall ’09)  
Required of all first-time Graduate Student Instructors; the preferred option for College of Environmental Design GSIs, though alternatives exist across the campus.

OVERVIEW AND LEARNING OBJECTIVES
This class is designed to address the needs of new Graduate Student Instructors working in a variety of settings: studios, seminars, lectures, etc. Students in the class come from across the campus, although the majority of them are in the College of Environmental Design, which offers this class in one of its three departments each semester. The class offers practical understanding of the academic organization, simple pedagogical techniques and strategies, and deeper discussion of individual agency in the classroom. Early on, the nature of support for classroom instruction is highlighted. Topics in the first two-thirds of the class also address how to manage the first day of class, prevent plagiarism, encourage active learning and engagement, handle student homework in an ethically-appropriate manner and grading practices. The class also discusses the challenges of our diverse community, covering issues such as mental health and disability support in the classroom, the unique needs of first-generation college students, and ethnic, economic, racial, or gender issues.

Towards the end of the semester, class discussion also addresses the challenges of professional development in academe and the models available for educators, including the implications of working as an adjunct. Students consider the differences between a teaching portfolio and a professional portfolio and look at how positions are advertised at professional institutions.

COURSE REQUIREMENTS
Readings for the class are almost entirely on-line, and many are from sources aimed at professional development for professors, including the Chronicle of Higher Education, InsideHigherEd.com, and Tomorrow’s Professor. A few longer readings are from the Journal of Architectural Education. In addition, students choose a book and write a reflective report on its implications; one of these essays from 2008 was published in the Journal of Architectural Education in 2009.
4.4 FACULTY AND STAFF RESUMES

Supplemental information to the APR must include a maximum two-page résumé for each faculty member teaching in the accredited degree program.

Some faculty have joint appointments with other departments on campus. This chart lists all “permanent” faculty in the Department, and indicates their commitments to our department and elsewhere on the campus.

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4.4.1 TENURED AND TENURE-TRACK FACULTY / RÉSUMÉS

The following are abbreviated *curricula vitae* for the faculty. Several of the faculty have résumés exceeding twenty pages; longer ones are available on request to the individual. We would encourage you to speak directly to any of the faculty while visiting Berkeley, should there be specific concerns or questions not addressed here.

*Résumés for Continuing Lecturers follow.*
NEZAR ALSAYYAD, PH. D

Professor, Department of Architecture & Department of City & Regional Planning, University of California, Berkeley
Chair, Center for Middle Eastern Studies, University of California, Berkeley, 1995 – present

REGISTERED ARCHITECT, EGYPT

Principal, XXA: The Office of Xcross-Xultural Architecture, 1977 – present

EDUCATION

B.Arch., Architectural Engineering / Graduate Diploma in Town Planning, Cairo University, Cairo, Egypt, 1979
M.S., Architecture, Massachusetts Institute of Technology, 1981
Ph.D., Architecture & Urban History, University of California, Berkeley, 1988

ACADEMIC APPOINTMENTS

Professor / Associate Professor / Assistant Professor, Depts. of Architecture & City and Regional Planning, UC Berkeley, 1989-present
Associate Dean for International Programs, CED, UC Berkeley, 2003-2009
Director & Co-Founder, International Association for the Study of Traditional Environments (IASTE), 1987-present
Assistant Professor, College of Environmental Design, University of Petroleum & Minerals, Dhahran, Saudi Arabia, 1982-1984

SELECTED GRANTS, HONORS AND AWARDS

Distinguished Teaching Award, University of California, Berkeley, 2008
• U.S. Department of Education, Title VI Grants, CMES, UC Berkeley, 1996 - 2010
• Beit Al-Quran Medal for contributions to the study of Arab history, Bahrain, 1995
• Social Science Research Council (SSRC), 1994 - 1995
• National Endowment for the Arts (NEA), Design Arts Program (with Jean-Paul Bourdier), 1991 - 1992
• Pioneer America Society, Williamsburg, Virginia: Fred Kniffen Award for Best Book in Material Culture for *Dwellings, Settlements and Tradition* (with Jean-Paul Bourdier) 1990

• Graham Foundation for Advanced Studies in the Arts, Chicago: Grant to establish IASTE (with Jean-Paul Bourdier), 1988 - 1999

**FILMS**

• *Virtual Cairo: An Urban Design History*. Written, produced and directed by Nezar AlSayyad, IASTE Productions, 1998

• *At Home with Mother Earth*. Written and Produced by Nezar AlSayyad, Morteza Rezvani, and David Weisman; directed by Morteza Rezvani and David Weisman. Narrated by Eartha Kitt. IASTE/Feat of Clay Productions, 1994

**BOOKS AND SELECTED PUBLICATIONS**

• *Cinematic Urbanism* (London & New York: Routledge, 2006)


• *Muslim Europe or Euro-Islam*, co-edited with Manuel Castells (Lanham and London: Lexington Books, 2002). Translated into Arabic, Spanish, and Turkish.

• *Hybrid Urbanism* (New York and Westport: Greenwood/Praeger, 2001)

• *Consuming Tradition, Manufacturing Heritage* (London & New York: Routledge, 2001)
MARK S.T. ANDERSON, AIA
Associate Professor, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, CALIFORNIA, WASHINGTON, HAWAI’I
Principal, Anderson Anderson Architecture, San Francisco & Seattle.

EDUCATION
M.Arch. Magna Cum Laude, Graduate School of Design, Harvard University, 1986
B.A., History and Asian Studies, Magna Cum Laude, Pacific Lutheran University, 1982

ACADEMIC APPOINTMENTS
Associate Professor / Assistant Professor, Dept. of Architecture, UC Berkeley, 2001-present
Associate Professor, University of Hawaii, Manoa, 1997-2001

SELECTED HONORS AND AWARDS
• Three Progressive Architecture Honor awards
• Over thirty regional and national design awards from the American Institute of Architects
• Faculty Design Award, Association of Collegiate Schools of Architecture, 2006
• Finalist, Community Category (Alluvial SpongeComb), Royal Danish Index Award, 2009
• Finalist and Honorable Mention, Zumtobel Award for Sustainability and Humanity, 2007
• Nominated for Royal Institute of British Architects Book Award, 2007
• Invited Exhibition, Venice Biennale 2006
• Numerous international awards and competition prizes for speculative and built design work
SELECTED BOOKS AND PUBLICATIONS

- “Anderson Anderson Architecture,” Taiwan Architect, (50 page focus), May 2009
- Prefab Prototypes; Site-Specific Design for Off-Site Fabrication, with Peter Anderson (Princeton Architectural Press, 2006)

SELECTED EXHIBITIONS

- SpongeComb, Venice Biennale (2006), Architecture + Design Museum, Los Angeles (2008),

IN BRIEF

Mark Anderson is a principal of Anderson Anderson Architecture in San Francisco. In partnership with his brother, Peter Anderson, he has designed and constructed numerous building projects in the United States and Asia and directed research projects and public art installations in the U.S., Europe and Asia. He lectures frequently on his design work and teaches design studios and seminars on creative design and fabrication technology. His design courses particularly focus on construction system prototyping, and infrastructure system design applied to sustainable environmental issues in urban areas.

Anderson’s design work focuses on emerging sustainable construction technology applied to unique sites and cultural conditions. His architectural work has received numerous international, national and regional competition prizes and design awards, including three Progressive Architecture Honor Awards and many awards from the American Institute of Architects. His drawings and design models have been widely exhibited internationally and has appeared in numerous books and professional publications in the United States, Asia and Europe. Mark is a National Peer fellow of the Federal Design Excellence Commission.
CHARLES C. BENTON
Professor, Department of Architecture, University of California, Berkeley

EDUCATION
M.Arch, Advanced Studies, Building Science, Massachusetts Institute of Technology, 1979
B.Arch, Architecture, Tulane University, 1974

ACADEMIC APPOINTMENTS
Professor / Associate Professor / Assistant Professor, Department of Architecture, University of California, Berkeley, 1985-present


Faculty Research Associate, Lawrence Berkeley Laboratory, Applied Science Division, 1985-2007

Assistant Professor, College of Architecture, Georgia Institute of Technology, 1980-1985

SELECTED GRANTS, HONORS AND AWARDS

SELECTED PROFESSIONAL AND CREATIVE WORK
- Pacific Energy Center, the Pacific Gas & Electric Company, Consultant, 1990-1999
- The Vital Signs Curriculum Materials Project, the Energy Foundation (3 grants), the Pacific Gas & Electric Company (3), U.S. Department of Energy (2), the Nathan Cummings Foundation (1), the Education Foundation of America (1), Fluke Corporation (1), 1992–2000, Principal Investigator
- A Study of Occupant Comfort in Support of PG&E’s Advanced Customer Technology Test Program (ACT2)
  - Phase II, the Pacific Gas & Electric Company, Research & Development, 1993-1996, Principal Investigator
SELECTED PUBLICATIONS


SELECTED PHOTOGRAPHIC EXHIBITS

- “Observing,” the Exploratorium, San Francisco, California, 2009
- “Colors & Textures.” A.Muse Gallery, San Francisco, California, 2008

IN BRIEF

Benton’s contributions in Building Science involve both teaching and research; he also leads a longstanding post-occupancy case study program. In addition, Benton harbors a passion for Kite Aerial Photography (KAP). His images documenting area salt ponds have been included in recent exhibits at the Cooper Hewitt Museum, the Exploratorium, Coyote Point Museum, and elsewhere. These aerial images have also been used by over 100 non-profit agencies for scientific / environmental research purposes and for outreach.
R. GARY BLACK, P.E., LEED AP, ASSOC. AIA

Associate Professor, Department of Architecture, University of California, Berkeley

REGISTERED ENGINEER, CALIFORNIA, OREGON, MINNESOTA

President, Integrated Structures, Inc. in Berkeley, California.

EDUCATION

M.Arch, University of California, Berkeley, 1986

M.S., Structural Engineering/Structural Mechanics, University of California, Berkeley, 1978

B.S., Civil Engineering, Phi Beta Kappa, University of California, Berkeley, 1976

B.S., Biology, Magna cum Laude, University of South Florida, Tampa, Florida, 1972

ACADEMIC AND PROFESSIONAL EXPERIENCE

Associate Professor / Assistant Professor, Dept. of Architecture, University of California, Berkeley, 1987 – present.

Associate Member, American Institute of Architects

Inventor, three US patents for energy efficient, seismic and fire resistant building systems

AWARDS

Concrete Construction Award, Project with General Contract Value under $6.0 million (Saint Andrew Christian)
American Concrete Institute, Kansas Chapter, 2007

Bronze Citation, American School and University Educational Interiors Showcase, 2001

Distinguished Teaching Award, Association of Collegiate Schools of Architecture, 1994
SELECTED PUBLISHED WORK

- Author of over twenty scholarly papers
- Regular presenter of papers at conferences and conventions, including the Campus on the Mail series at the Smithsonian
- Author of numerous articles on teaching - “His extensive development of a computer-assisted teaching module [is] worthy of the highest praise.” (Paul Naeker, Cambridge, MA.). “Illustrations of student work are as inspiring as they are beautiful.” (Irv Engel, Washington University).
- The Mary Rose Museum, with Christopher Alexander and Miyoko Tsutsui (Oxford University Press, 1994)

MAJOR PROJECTS

- Eishin University, Tokyo, Japan
- American Baptist College Seminary, Berkeley, CA
- Mary Rose Museum, Portsmouth, England
- San Francisco-Oakland Bay Bridge replacement proposal, Oakland, CA
- Galatea Winery, Arroyo Grande, CA
- 90 other building projects, including schools, churches, apartment buildings, wineries, affordable housing, custom residences, offices, restaurants.

PATENTS

“Spar Membrane Structure.” Uses baled straw, rebar and shotcrete, stacking a straw bale core in a running bond. This core provides insulation and formwork. Hourglass-shaped spars inserted pass through the core and pneumatically-applied concrete membranes sandwich the strawbale core. These membranes are tied in tension and resist shear via the spars, and their spacing prevent the thin membranes from buckling under vertical loads.

“Hydronically Insulated Panel” roof system. Energy efficient precast roof panels with clear spans of 80 feet. The panels use internal tubing and to siphon solar heat away from the building and deposit that heat where it can be used, reducing the building’s energy usage and qualifying for federal tax rebates.
PETER BOSSELMANN

Professor of Architecture & Urban Design, Departments of City and Regional Planning, Architecture & Landscape Architecture, University of California, Berkeley
Beatrix Farrand Chair of Landscape Architecture and Environmental Planning, 2002-2006

REGISTERED ARCHITECT, STATE OF BADEN WUERTENBERG, GERMANY

EDUCATION
Dipl. Ing. Arch. Karlsruhe, Germany 1972

SELECTED BOOKS AND PUBLICATIONS

• Urban Transformation: Understanding City Design (Island Press, 2008)
• “The Nature of Change” Territorio (Rome) 2007
• “Authenticity, Simulation and Entitlement” Urbanistica (Rome) 2005
• Representation of Places (Berkeley: University of California Press, 1998)
• “Boulevard Livability Study,” with Elizabeth Macdonald, Places vol. 11, no. 2 (1997)
SELECTED AWARDS

- Urban Design Honor Award (Rincon Hill Plan), AIA San Francisco, 2006, with the San Francisco Planning Department

IN BRIEF

Peter Bosselmann works nationally and internationally on urban design and planning projects. He established urban simulation laboratories in Milan, New York City, and in Tokyo, modeled after the Berkeley laboratory that has been under his direction since 1983. His publications appeared in a wide range of academic and professional journals. Bosselmann has produced numerous educational films about urban design issues in San Francisco and New York City, memorable ones include Times Square narrated by Jason Robards, and New York’s Upper East Side, narrated by Paul Newman.

He lectures frequently to audiences in Europe, Japan, China, Australia, and North America on his research in urban form and climate, traffic in neighborhoods, and on urban design representation. In 2006–7 he was awarded a one-year Visiting Professorship at the Politecnico Di Milano; in 2000 a six-month residency at the Royal Danish Academy of Fine Art, Copenhagen, and in 1992 he held an endowed chair at the Research Center for Advanced Science and Technology, Tokyo University.

He is the recipient of numerous design awards, including, AIA, ASLA, and ACIP awards for his work in San Francisco, an Urban Design Institute Award for his work in Oakland, California, recognition for the Seaton Airport Lands design competition in Ontario, Canada, two Progressive Architecture Awards for urban design research for work in San Francisco and for the Toronto Downtown Plans, an award from the American Planning Association, and an invited exhibition of his work at the Triennale in Milan, Italy.
JEAN-PAUL BOURDIER
Professor, Department of Architecture, University of California, Berkeley

ACADEMIC APPOINTMENTS

Professor / Associate Professor / Assistant Professor, Department of Architecture, University of California, Berkeley, 1982 - present

Professor, ILAUD, Sienna, Italy, 1986

Visiting Professor, MIT, 1981

Assistant Professor, University of Oklahoma, 1980 - 1981

Professor, School of Architecture, Dakar, Senegal, 1977 - 1980

Assistant Professor, Georgia Institute of Technology, 1976 - 1977

Co-founder and Editor of Traditional Dwellings and Settlements Review, 1989 - 2002


AWARDS

• Guggenheim, 1992
• American Council of Learned Societies, 1991
• President’s Humanities Fellowship (UCB), 1990
• Getty Foundation, 1990
• Graham Foundation for the Arts, 1990, 1987, 1986
• NEH (National Endowment for the Humanities), 1984
• Photography awards 15 first prizes (1999 to 2002)
EXHIBITIONS

- “L’Autre marche: Large-scale multimedia installation” in collaboration with Trinh T. Minh Ha, Musée du Qua Branly, Paris, France. 2006 - 2009
- Nearly one hundred additional exhibitions.

PRODUCTION DESIGN & ART DIRECTION OF FILMS DIRECTED BY TRINH MINH-HA

- Night Passage, 118 min. Digital Video (Jean-Paul Bourdier, co-director and co-producer) 2003
- The Fourth Dimension, 87 min. Digital Video (Jean-Paul Bourdier, co-producer) 2001
- A Tale of Love, 108 min. (Jean-Paul Bourdier, co-director) Toronto & Berlin Film Festivals, 1995
- Surname Viet Given Name Nam, 108 mins. (First Prize, Film as Art, SECA, San Francisco MOMA; First Prize Blue Ribbon, American Film and Video Festival) 1989
- Naked Spaces - Living Is Round, 135 min. (Golden Athena Award, Athens International Film Festival; Blue Ribbon, 1987 American Film Festival, New York; 1987 Biennale, Whitney Museum of American Arts) 1985

BOOKS AND SELECTED PUBLICATIONS

- Bodyscapes, with introduction and DVD by Trinh T. Minh (San Rafael: Earth Aware Editions, 2007)
GAIL BRAGER, PH.D.

Professor, Department of Architecture, University of California, Berkeley
Interim Chair, Department of Architecture, University of California, Berkeley, 2009-2010
Associate Director, Center for the Built Environment, 1997 – present

EDUCATION
Ph.D., Mechanical Engineering, University of California, Berkeley, 1984
M.S., Mechanical Engineering, University of California, Berkeley, 1982
B.S., Mechanical and Environmental Engineering, UC Santa Barbara, 1980

ACADEMIC APPOINTMENTS
Professor / Associate Professor / Assistant Professor, Department of Architecture, University of California, Berkeley, 1984 - present

SELECTED AWARDS AND HONORS
• Fellow, ASHRAE, 2001
• Distinguished Service Award, ASHRAE, 2000
• Presidential Young Investigator Award, National Science Foundation, 1987 - 1995
• Ralph G. Nevins Award, ASHRAE, 1989
SUMMARY OF RESEARCH GRANTS AND PUBLICATIONS

- Principal Investigator (or co-P.I.) for over 20 research projects totaling over $1.5 million
- Author of over 50 scholarly publications
- Associate Director of the Center for the Built Environment, an NSF Industry / University Collaborative Research Center, with approximately 40 industry partners, and variable funding of $400,000-600,000 per year. CBE’s mission is to improve the design and operation of buildings, with an emphasis on evaluating and improving building environmental quality, testing new technologies for increasing workplace productivity, and reducing the energy used by buildings and their environmental control systems
- Research interests: Sustainable building design and operation, thermal comfort and adaptation, natural ventilation in commercial buildings, mixed-mode building design and control strategies, energy use in buildings, climate-responsive building design, task-ambient ventilation systems, indoor environmental quality, worker health, comfort and productivity

SELECTED PROFESSIONAL SERVICE

- Chair, Research Committee, U.S. Green Building Council, 2006 - 2009
- Vice-Chair, Standard 55, American Society of Heating, Refrigerating, and Air-Conditioning Engineers, 2001 - 2005
- Chair, Technical Committee 2.1 - Physiology and Human Environment, American Society of Heating, Refrigerating, and Air-Conditioning Engineers, 1993 - 1995
- President, Golden Gate Chapter of ASHRAE, 1994 - 1995
- Other officer positions, Golden Gate Chapter of ASHRAE, 1989 - 1996
- Chair, Society of Building Science Educators (SBSE), 1989 - 1991
- Other officer positions, Society of Building Science Educators (SBSE), 1986 – 1993
DANA BUNTSROCK
Associate Professor, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, ALASKA

EDUCATION
M.Arch with High Distinction, University of Michigan, Ann Arbor, 1988
M.U.P., University of Michigan, Ann Arbor, 1988
B.Arch., Tulane University, 1981

ACADEMIC APPOINTMENTS
Associate Professor / Assistant Professor, Dept. of Architecture, UC Berkeley, 2000 - present
Assistant Professor / Adjunct Assistant Professor, Department of Architecture, University of Illinois, Chicago, 1994-2000
Visiting Academic, The University of Adelaide, Adelaide, South Australia, Spring, 1994
Visiting Assistant Professor, Carnegie Mellon University, 1989-1991

PROFESSIONAL EXPERIENCE
Dai’ichi Kobo (Professor Ter’ichi Takahashi, principal) Tokyo, Japan, 1992 - 1993
Minch Ritter Forrest Architects, Juneau, Alaska, 1984 - 1986
Quadra Consultants, Juneau, Alaska, 1982 - 1984
SELECTED GRANTS, HONORS AND AWARDS

• Fulbright Research Fellowship (Japan), at the Institute for Industrial Science (Fujimori Lab), University of Tokyo, 2006-2007
• Faculty Award for Outstanding Mentorship of Graduate Student Instructors, University of California, Berkeley, 2005
• National Science Foundation/Japan Society for the Promotion of Science. University of Tokyo, Institute for Industrial Science (Fujimori Lab), Post-doctoral Fellowship, 1998
• Graham Foundation, $10,000 subvention to Spon Press for my book, *Japanese Architecture as a Collaborative Process*

BOOKS AND SELECTED PUBLICATIONS

• “The Amazing Mr. Ito” in *Toyo Ito* (London: Phaidon, 2009)
• “Architecture: Experience and Abstraction” in *Kengo Kuma*. (Seoul, Korea: C3, 2007)
• “After his triumph in Sendai, Toyo Ito charted a new course, which is now becoming visible” *Architectural Record*, January 2008
• “Making Small Buildings Large” (a piece on ritual in the work of Terunobu Fujimori), *10+1*, no. 44, October 2006, p. 142-154, in Japanese
GREG CASTILLO, PH.D.
Associate Professor, Department of Architecture, University of California, Berkeley

EDUCATION
Ph.D., History of Architecture, University of California, Berkeley, 2000
M.Arch, University of California, Berkeley, 1995
M.A., Communications Management, University of Southern California, 1978
B.F.A., Photography, Rochester Institute of Technology, 1975

ACADEMIC APPOINTMENTS
Associate Professor, Dept. of Architecture, University of California, Berkeley, 2009 - present
Research Associate, United States Studies Centre, University of Sydney, 2009 - present
Senior Lecturer, Faculty of Architecture, University of Sydney, 2007 - 2009
Assistant Professor / Lecturer, School of Architecture, University of Miami, 2000-2006

SELECTED AWARDS AND HONORS
• Fulbright Fellowship, German Fulbright Fund (Summer Seminar on German Visual Culture), 2004
• Association of Collegiate Schools of Architecture “Best Scholarly Article Award,” 2004
• Getty Research Institute Postdoctoral Grant, 2002-2003
• Association of Collegiate Schools of Architecture Service Award, 2003
• Visiting Scholar Appointment, Canadian Centre for Architecture, 2002
• Short-term Residency, Kennan Institute for Advanced Russian Studies, 1998
• Deutscher Akademischer Austauschdienst Research Fellowship: 1996/1997
BOOKS AND SELECTED PUBLICATIONS

• *Cold War on the Home Front: The Soft Power of Midcentury Design* (Minneapolis, University of Minnesota Press, forthcoming, 2010)


RAVEEVARN CHOKSOMBATCHAI, ASSOC. AIA

Associate Professor, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, THAILAND

Principal, VeeV, San Francisco

EDUCATION

M.Arch with high commendation, Harvard University Graduate School of Design, 1987
M.Landscape Architecture, Harvard University Graduate School of Design, 1986
B.Arch., Chulalongkorn University, Bangkok, Thailand, 1983

ACADEMIC APPOINTMENTS

Associate Professor / Assistant Professor, Dept. of Architecture, UC Berkeley, 1995 – present
Visiting Professor in Architecture, University of Southern California, Spring Semester, 2009
Visiting Professor, Chulalongkorn University, Bangkok, Thailand, 2008
Visiting Professor in Architecture, Lawrence Technology, School of Architecture, 2006
Michael Owen Jones Visiting lectureship University of Virginia, Charlottesville, 2004
Visiting Professor, Southern California Institute of Architecture, Los Angeles, 2003

SELECTED GRANTS, HONORS AND AWARDS

• Architecture and Design Exhibition at the Seoul Design Olympiad, Seoul, South Korea 2009
• Named one of the 2008 “Ten to Watch” Designers by California Home + Design, 2008
• AIA Honor Award in Interior Architecture, AIA San Francisco Chapter, 2007
• Design Citation Award in Unbuilt Architecture, AIA San Francisco Chapter, 2007
• Finalist, Tsunami Memorial and Museum International Design Competition, 2006
• Finalist, AIDS Memorial International Competition 2005
• National Design Award nomination in the Environmental Design category, 2002
• The 49th Annual Progressive Architecture Award, 2002

SELECTED EXHIBITIONS

• AIASF Design Awards Exhibition, AIA, San Francisco, 2007
• Tsunami Memorial & Museum, Bangkok Government Building, Bangkok, Thailand, 2006
• “Folded Plate” & “Ice Plate” at San Francisco Museum of Modern Art, 2006
• Altered Practice, AIA San Francisco Gallery, 2005
• Body Design Show, San Francisco Museum of Modern Art, 2003
• One Woman Show, The Association of Siamese Architects, Bangkok, 2002
• The 49th Annual P/A Award Show, Max Protetch Gallery, New York, 2002
• Pacific Rim Architects, Tokyo Design Center, Tokyo, Japan, 2000
• Liquescence, Cooper-Hewitt National Design Museum, Smithsonian Institute, 2000

BOOKS AND PUBLICATIONS

• “Territory: The National AIDS Memorial,” AD SPECIAL ISSUE, David Gissen, ed. 2010
• Conversations With Young Architects, (Li-zenn Publishing, Bangkok, Thailand, 2008)
• “Modern Origami-like Touches Bring Life to a Drab Studio,” by Zahid Sardar, San Francisco Chronicle, 2007
• “Memorial Memory,” Art4d, issue # 123, February 2006 (text in Thai and English)
• “Handle With Care,” Architecture, September 2006, p. 32.
• “Beyond Quantities,” Emergent Memory, AIDS Memorial Competition catalog, 2005
RENEE Y. CHOW

Associate Professor, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, NCARB CERTIFIED; REGISTRATIONS: MASSACHUSETTS, CALIFORNIA
Partner, Studio URBIS in Berkeley, California

EDUCATION
M.Arch, Massachusetts Institute of Technology, 1980
B.S. in Art and Design, Massachusetts Institute of Technology, 1977

ACADEMIC APPOINTMENTS
Associate Professor / Assistant Professor, Dept. of Architecture, UC Berkeley, 1993 - present
Assistant Professor / Lecturer / Instructor, Department of Architecture, Massachusetts Institute of Technology, 1980 - 1993

SELECTED GRANTS, HONORS AND DESIGN AWARDS
- AIA Honor Award for Washington Manor Branch Library, AIA San Mateo County, 2008
- Research Grant for “Designing Density” from the Imre Halasz Trust Fund, 2008 - 2010
- Honorable Mention for “New Canal Town in South China.” International Design Competition, Shanghai Qingpu District Government, 2005
- Eva Li Chair in Design Ethics, University of California Berkeley, 2005 to present
- AIA Research and Technology Honor Achievement Award for Suburban Space: The Fabric of Dwelling, AIA California Council, 2003
- Second Place for “Housing as a Fabric: Paradigm Shifts,” Concepts Competition: Housing Solutions for our Communities, AIA Monterey Bay Chapter, 2002 and 2003
SELECTED BOOKS, EXHIBITIONS AND PUBLICATIONS

• “Five Strategies for City Building,” Refabricating City. Hong Kong Shenzhen Bi-City Biennale of Urbanism/Architecture, Hong Kong Central Police Compound, HK Institute of Architects, et al, January to March 2008
• “Ossified Dwelling: or Why Contemporary Suburban Housing Can’t Change,” Places vol. 17, no. 2 (Summer 2005) p. 54-57

IN BRIEF

Professor Chow lectures and writes about the forms of traditional and contemporary urbanism. Her field-based studies were first developed in the suburbs of the United States and have expanded internationally, with her current research, writing and creative design focused on Chinese cities. Chow juxtaposes the concepts of fields with figures as a lens with which to both critique and design the architecture of cities.
MARY CATHERINE COMERIO
Professor, Department of Architecture, University of California, Berkeley

EDUCATION
M.Arch., Washington University, St. Louis, 1977
M.S.W., Washington University, St. Louis, 1977
B.A. Washington University, St. Louis, 1973

ACADEMIC APPOINTMENTS
Professor / Associate Professor / Assistant Professor, Department of Architecture, University of California, Berkeley, 1978-present; Chair, Department of Architecture, University of California, Berkeley, 2006 - 2009
Vice Chair, Department of Architecture, 1993-2002

SELECTED GRANTS, HONORS AND AWARDS
• Co-P.I., NEESR Grand Challenge, five year, $4-million research grant from the National Science Foundation on Reducing Collapse Risk in Vulnerable Concrete Buildings 2007)
• Top U. S. Seismic Projects of the 20th Century: The UC Berkeley Disaster Resistant University Program, Applied Technology Council & Engineering News Record, 2006
• Erskine Fellow, University of Canterbury, New Zealand, 2003
• Team Leader of Building Systems Research in the Pacific Earthquake Engineering Research Center (10 year multi-million dollar research funding, 1997-2007)
SELECTED PROFESSIONAL AND CREATIVE WORK

- Associate Editor, *Earthquake Spectra*, a core journal listed in the science citation index
- Consultant for Applied Technology Council on Performance Based Design Guidelines

BOOKS AND SELECTED PUBLICATIONS

GALEN CRANZ, PH.D.
Professor, Department of Architecture, University of California, Berkeley

EDUCATION
Ph.D., Sociology, University of Chicago, 1971
M.A., Sociology, University of Chicago, 1969
B.A., Sociology, Reed College, 1966
Exchange student, Keele University, England, 1964-1965
Certified Teacher of the Alexander Technique, NYC, 1990
Department of Film and Television, Tisch School of the Arts, New York University (1982-83) supported with a Kellogg National Fellowship (1981-1984)

ACADEMIC APPOINTMENTS
Professor / Associate Professor / Assistant Professor, Department of Architecture, University of California, Berkeley, 1975-present
Assistant Professor, in Architecture and Urban Planning, Princeton University, 1971-1975
Visiting Adjunct Assistant Professor, Department of Engineering, Columbia University, 1973
Visiting Assistant Professor, Dept. of Sociology, Illinois Institute of Technology, 1970-1971
Acting Executive Director, Metropolitan Study Center, IIT, 1969-1970
Instructor, Sociology, Columbia College (Chicago), 1969
SELECTED AWARDS AND HONORS

- Achievement Award, Environmental Design Research Association, 2004
- Kellogg National Fellowship for interdisciplinary leadership, 1981-1984

SELECTED DESIGN PRIZES

- First Prize, National Endowment for the Arts, Cityscape Design Competition for St. Paul, Minnesota, Head designer and team leader, $10,000, 1985
- First Place, International Competition for Design of Parc de La Villette, Paris, Team Member with Bernard Tschumi, 1983
- Seventh Place, Design of Spectacle Island, one of Boston’s Inner Harbor Islands, Team member along with Susanna Torre, Mary Miss et al, 1983

RECENT GRANTS


BOOKS


IN BRIEF

Hundreds of Scholarly Articles, Radio and Television Appearances, Public Lectures on seating and body conscious design, parks, sustainability, housing for the elderly, post-occupancy evaluation Consultant in Somatics, Ergonomics, and Body-conscious Design.
MARGARET CRAWFORD, PH.D.
Professor, Department of Architecture, University of California, Berkeley

EDUCATION
A.M., Harvard University, 2000
Ph.D., Urban Planning Program, Graduate School of Architecture and Urban Planning, University of California, Los Angeles, 1990
Graduate Diploma with Honors, Architectural Association Graduate School, London, 1980
B.A., University of California, Berkeley, 1979

ACADEMIC APPOINTMENTS
Professor, Department of Architecture, University of California, Berkeley, 2009-present
Professor, Graduate School of Design, Harvard University, 2000-2009
Visiting Professor, Dipartimento di Urbanistica e Pianificazione del Territorio, Facolta di Architettura, Universita degli Studi di Firenze, May, 2009
Chair, History, Theory, and Humanities Program, Southern California Institute of Architecture, Los Angeles, CA., 1985-1999
Visiting Professor, Art History Department, University of California, Santa Barbara, Spring 1997

SELECTED GRANTS, HONORS AND AWARDS
• Guggenheim Fellowship, for book project “Rethinking Urban Space,” 2007-2008
• Fulbright Senior Research Fellowship for Hong Kong, “Malls and Markets,” 2007
• Asia Center, Harvard University, for research on urban development in Nansha, Pearl River Delta, China, 2006
• Real Estate Academic Initiative, Harvard University, support for research for book, Public Space from the Bottom Up, 2006
• Milton Grant, Harvard Medical School, 2001
• James Marsden Fitch Foundation Fellowship, 1998
• Fellow, Graham Foundation for Advanced Studies in the Visual Art, 1997
BOOKS AND SELECTED PUBLICATIONS

- *Nansha Coastal City: Landscape and Urbanism in the Pearl River Delta*, co-editor with Alan Berger (Cambridge: Graduate School of Design Harvard University, 2006)
C. GREIG CRYSLER, PHD
Associate Professor, Department of Architecture, University of California, Berkeley
Associate Dean, Undergraduate Studies, College of Environmental Design, 2007 – present

EDUCATION
Ph.D., Graduate Program in the History and Theory of Art and Architecture, State University of New York at Binghamton, year
A.A. Diploma, RIBA Part 2, Architectural Association School of Architecture, London, year
B.E.S., School of Architecture, University of Waterloo, Waterloo, Canada year

ACADEMIC AND PROFESSIONAL EXPERIENCE
Associate Professor / Assistant Professor, Dept. of Architecture, UC Berkeley, 1999 - present
Adjunct Assistant Professor, Dept. of Architecture, University of Illinois at Chicago, 1997 - 1999
Editor of a/r/c (architecture/research/criticism) journal, 1990 - 1995
Inter-Arts Residency, Banff Center for the Arts, Banff Alberta, Canada, 1986 - 1987

SELECTED AWARDS AND HONORS
- Faculty Research Grant, University of California, Berkeley, 2007
- Everyday Hero Award, University of California, Berkeley, 2006
- Annette Kolodny Environmental Studies Prize, American Studies Association, 2003
- Junior Faculty Research Grant, University of California, Berkeley, 2002
- Graham Foundation Project Grant, 2000
SELECTED PUBLICATIONS


SELECTED UNIVERSITY AND PUBLIC SERVICE

- Program Director, Arcus Endowment, CED, UC Berkeley, 2000 - present
- Council of Undergraduate Deans, 2007 - present
- Ph.D. Committee, Department of Architecture, UC Berkeley, 2000 - present
- Chair, CED Undergraduate Affairs Committee, 2009 - 2010
- Acting Director, Berkeley Center for Globalization and Information Technology, UC Berkeley, 2001 – 2002
RENÉ DAVIDS, FAIA

Professor of Architecture & Urban Design, Department of Architecture, UC Berkeley

REGISTERED ARCHITECT, CALIFORNIA, COLEGIO ARCHITECTOS DE CHILE

Partner, Davids Killory, Berkeley

EDUCATION


Escuela de Bellas Artes, Universidad de Chile, Santiago de Chile, 1974

B.Arch, Universidad de Chile, Santiago de Chile 1972

ACADEMIC APPOINTMENTS

Professor / Associate Professor / Assistant Professor, Department of Architecture, University of California, Berkeley, 1995 – present.

Tutor at the Architectural Association, London U.K.,

Visiting Professor at the Universidad de Chile, Pontificia Universidad Católica de Chile, Universidad Iberoamericana, México, Royal College of London, Glasgow School of Art, University of New Mexico, University of Arizona, and the University of Illinois in Chicago

Visiting critic at Cornell University, Harvard University and others

SELECTED ARCHITECTURE AWARDS

• Citation, Unbuilt Architecture (Plug-in Pavilion), AIA San Francisco, 2009
  with Taylor Medlin (M.Arch ‘10 / Opt. 2)
• Elevated to the College of Fellows, American Institute of Architects, 2008
• First Prize, Central Glass International Architectural Design Competition, 2008
• Idea of Merit Award, Octavia Boulevard International Competition, 2005
• President’s Award, Metal Construction Association, 2004
Regional winner (*Red House*), National Contractor of the Year Award, Coty, 2003
Grand Remmie (*Red House*), National Association of the Remodeling Industry (NARI), San Francisco Bay Area Chapter, 2002
Honor Award (*Sunrise Place*), American Institute of Architects (National), 1995
Federal Design Achievement Award, (*Daybreak Grove and Sunrise Place*), National Endowment for the Arts, 1995
Honor Award (*Daybreak Grove*), American Institute of Architects (National), 1994
Design Award, Association of Collegiate Schools of Architecture, 1994
Citation for Urban Excellence (*Daybreak Grove*), ACSA/AIA, Committee for Education, 1994
Progressive Architecture Award (*Sunrise Place*), 1992
*IX Bienal Panamericana de Arquitectura Mención de Honor, Sunrise Place and Daybreak Grove* 1994

**RESEARCH GRANTS, HONORS**
- John Simon Guggenheim Memorial Foundation Fellowship, 1999
- Citation, Progressive Architecture Award for Research, 1999
- Graham Foundation Award for AsBuilt, 2003

**BOOKS**

**IN BRIEF**
Research by René Davids and about Davids Killory has been in magazines in Latin America, Japan, Europe and the US. David’s has also lectured in four continents.
NICHOLAS DE MONCHAUX

Assistant Professor of Architecture & Urban Design, Department of Architecture, UC Berkeley

EDUCATION

M. Arch, Princeton, 1999

B.A. with Distinction, in Architecture, Yale, 1995

Academic Appointments

Assistant Professor, Dept. of Architecture, University of California, Berkeley, 2006-present.

Assistant Professor, Department of Architecture & Landscape Architecture, University of Virginia, 2001-2006

SELECTED GRANTS, HONORS AND AWARDS

- Finalist, WPA 2.0 competition, UCLA Citylab, 2009
- Hellman Family Fund Award, University of California, Berkeley, 2009
- Jury Citation, James Stirling Memorial Lectures, Canadian Centre for Architecture, 2008
- Daniel and Florence Guggenheim Fellowship, Smithsonian Institution, 2005-2006
- Han Heun Kim Award, International Union of Architects, 2002
- John Dinkeloo Memorial Fellowship, Van Alen Institute & American Academy in Rome, 2000

SELECTED PROFESSIONAL AND CREATIVE WORK

SELECTED BOOKS AND PUBLICATIONS

- “Nicholas de Monchaux’s Local Code” Architectural Design, Forthcoming
- "Spacesuit and City" Log 13/14, Fall 2008, p. 101-114
- Samples, Scenarios, Catalysts: Towards an Ecology of Strangers, University of Virginia School of Architecture, 2005.

IN BRIEF

Radio and Television Appearances, Public Lectures on ideas of Nature, Technology, and the City

Consultant in Design, Architecture and New Media
ANTHONY DUBOVSKY

Professor, Department of Architecture, University of California, Berkeley

EDUCATION
M.A., Design, University of California, Berkeley, 1970

Uniwersytet Warszawski, Warsaw, Poland, 1968-1969

B.A., Russian literature and history, Reed College, Portland, Oregon, 1967

Colegio Nacional de La Plata, La Plata, Argentina, 1961-1962

HONORS, FELLOWSHIPS AND AWARDS
- CUE Art Foundation Exhibition, New York, 2005 - 2006
- Humanities Research Fellowship, University of California, Berkeley, Painting in Jerusalem
- Adler Award, The Jewish Museum, San Francisco, Prize and Solo Exhibition, 1990
- Stanford University - University of Warsaw Graduate Exchange Program Fellowship, Fine Arts, 1968 - 1969
- American Field Service Foreign Exchange Student, Argentina, 1962

SELECTED ONE-MAN EXHIBITIONS
- CUE Art Foundation (New York), 2005 - 2006
- Evening Train, George Krevsky Gallery (San Francisco), 2001
- Russian Songs, George Krevsky Fine Arts (San Francisco), 1997
- A Painter’s World, Yeshiva University Museum (New York), 1994
- The Land of Polin, Rider College Gallery, Rider College (Lawrenceville, NJ), 1991
- Imagined Memories, First Bi-Annual Adler Award Exhibition, The Jewish Museum (San Francisco), 1991
871 Fine Arts (San Francisco), 1990
Hayden Gallery, Massachusetts Institute of Technology, 1978
Light Gallery (New York), 1978
Galeria Foksal (Warsaw), 1969

SELECTED GROUP EXHIBITIONS
- *Figuratively Speaking*, Heritage Fine Arts, Heritage Bank (San Jose).
- Susan Rush Fine Arts (Sag Harbor)
- Art in Embassies Program, United States Embassy (Tel Aviv), 1992 - 1993
- Ruth Siegel Gallery (New York), 1983
- *Jewish Themes: Northern California Artists*, Judah L. Magnes Museum (Berkeley), 1983
- Stephen Rosenberg Gallery (New York), 1983
- Boston College, 1979
- *Six Painters/Six Attitudes*, Oakland Museum (Oakland, California), 1975

SELECTED PUBLICATIONS & REVIEWS
- Anthony Dubovsky’s work has been reviewed and/or reproduced in publications including *The San Francisco Chronicle, Tikkun, The Surfer’s Journal, Zyzzyva, The New York Times, the Forward, The New York Sun, The New Yorker and Art in America*.
- *Jerusalem: To Know by Living* (El León Literary Arts, 2004)
RICHARD FERNAU, FAIA

Professor, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, CALIFORNIA AND MONTANA

Partner, Fernau & Hartman Architects, Inc., 1981-present

EDUCATION

M. Arch, University of California, Berkeley, 1974

B.A., Philosophy, University of California, Santa Cruz, 1969

Academic and Professional Appointments

Professor / Associate Professor / Assistant Professor, Department of Architecture, University of California, Berkeley, 1981 – present

Steiger Partner Architekten und Planer, Zürich, Switzerland, Research/ Energy Policy, 1976

SELECTED AWARDS AND HONORS

- Sunset - AIA Western Home Merit Award, Montana Urban Homestead, 2007-2008
- Citation for Architecture, Eastside Performing Arts School, AIA East Bay, 2007
- American Woods Council Merit Award, Avis Ranch, 2006
- AIA Housing Committee Award, Avis Ranch, AIA National, 2005
- Merit Award, West Marin House, AIA California Council, 2003
- Citation Award, Mann House, AIA Redwood Empire, 2002
RECENT EXHIBITS

• "The Houses of Martha’s Vineyard" (Teller House), Boston Society of Architects Gallery, Boston, MA, 2006
• "GA Houses Project 2005" (Montana Urban Homestead), GA Gallery, Tokyo, 2005
• "10 Shades of Green" (Westcott/ Lahar House), curated by Peter Buchanan, Architectural League of New York, 2003

RECENTLY FEATURED WORK


IN BRIEF

Richard Fernau is an active practitioner and founding member of Fernau & Hartman. He is an award-winning designer, and has exhibited the work of his firm nationally and internationally. Professor Fernau teaches graduate studios, and his research remains rooted in "circumstantial architecture," an umbrella term which includes interconnected interests in vernacular building, site-specific architecture, critical regionalism, and sustainable design.
HARRISON S. FRAKER, Jr., FAIA
Professor of Architecture & Urban Design, Department of Architecture, UC Berkeley
Dean and William W. Wurster Professor, College of Environmental Design, 1996 – 2008

REGISTERED ARCHITECT, NEW JERSEY

EDUCATION
M.F.A., architecture, Princeton University, 1966
Special Exchange, Cambridge University, England, 1965
B.A., architecture, Princeton University, 1964

TEACHING EXPERIENCE
Professor, Department of Architecture, UC Berkeley, 2008 - present
Dean and Professor, University of California, Berkeley CED, 1996 - 2008
Head and Founding Dean, University of Minnesota, CALA, 1984 - 1995
Assistant Professor / Lecturer, School of Architecture, Princeton University, 1971 - 1978 & 1982 - 1984
Instructor, ACSA Summer Institute on Energy Design, 1983
Visiting Studio Critic, North Carolina State University, 1981
Research Associate Professor, University of Pennsylvania, 1979 -1981
Visiting Associate Professor, Carnegie-Mellon University, 1978 - 1979
SELECTED HONORS

- Honorary Guest Professor, Tongji University, 2007 - present
- Honorary Visiting Professor, where? 2007 - present
- Certificate of Honor, City & County of San Francisco, 2005
- Service Award, Association of Collegiate Schools of Architecture, 2005
- Certificate of Appreciation, U.S. General Services Administration, 2002
- Senior Fellow, Design Futures Council, 2002
- Presidential Citation, AIA California Council, 1999
- Distinguished Service Award, CALA, University of Minnesota, 1995
- 10 other national and local design awards for architectural practice, 1975-1991

SELECTED PUBLICATIONS

- Over 50 publications on design and urban design theory and practice; passive solar, natural cooling and daylighting; teaching pedagogy; and sustainable urban design, 1966 - present

SPONSORED RESEARCH

Principal Investigator for over $20 million of sponsored research, encompassing over 40 major projects, on sustainable urban design, transit-oriented development, affordable housing, passive solar/natural cooling/daylighting, 1974 - present

Technical Consultant, Advisor, and Author for building energy research projects for the following agencies U.S.DOE., U.S.HUD, AIA, ASHRAE, IES, NAHB, EPRI, GRI, LASI, LBL, and PHL, 1976-86

LEADERSHIP POSITIONS

Chaired over 30 national and international academic and professional committees and conferences, given over 200 invited lectures and presentations and served on over a dozen national and local awards juries, 1976-present.
PAUL GROTH, Ph.D.

Professor, Departments of Architecture & Geography, University of California, Berkeley

EDUCATION

Ph.D., Geography (U.S. urban and historical geography), UC Berkeley, 1984

M.A., Geography, University of California, Berkeley, 1978

Courses, non-fiction writing and U.S. history, New School for Social Research, 1974 - 1976

B. Arch., North Dakota State University, 1972

ACADEMIC APPOINTMENTS

Professor, Dept. of Architecture & Dept. of Geography, UC Berkeley, 2003 - present

Associate Professor, UC Berkeley, 1990 - 2003 (Dept of Architecture only, 1994 - 2003)

Assistant Professor, Dept. of Landscape Architecture & Dept. of Architecture, UC Berkeley, 1983 – 1990

Faculty Group & Executive Committee, Program in American Studies, UC Berkeley, 1991 - present

Founding Co-Director, Program in American Studies, UC Berkeley, 1991 - 1993

Assistant to the Dean and Adjunct Faculty, New Jersey School of Architecture, 1973 - 1976

SELECTED GRANTS, HONORS AND AWARDS

• Excellence in Teaching Award, Phi Beta Kappa of Northern California, 2007

• Faculty Award for Outstanding Mentorship of Graduate Student Instructors, University of California, Berkeley, 2006

• Research Fellow, Warren Center for the Study of American History, Harvard University, 2005

• Senior Fellow, Doreen Townsend Center for the Humanities, UC Berkeley, 1999 - 2000

• John Brinckerhoff Jackson Prize, for Living Downtown, best book in cultural geography, 1995

• Abbott Lowell Cummings Prize, for Living Downtown, best book in vernacular architecture, 1995
- National President of the Vernacular Architecture Forum (VAF), 1989 - 1991
- Post-Doctoral Fellowship, National Museum of American History, Smithsonian Institution, 1986
- NEH Museum Research Fellowship, Winterthur Museum, 1985

BOOKS AND SELECTED ARTICLES

- “Bridging the Liberal Arts and Architectural Practice: 15 Processes of Cultural Landscape Formation,” ArchCairo 2007 (Cairo, Egypt: Cairo University, 2007) p. 11-36.
MARIA PAZ GUTIERREZ
Assistant Professor, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, COLEGIO ARCHITECTOS DE CHILE
Principal, Gensler+Gutierrez

EDUCATION
M. Arch., Highest Honor, in Design & Theory, University of Pennsylvania, 2001
Post-professional Studies in Architectural Design, Honors, Universidade de Sao Paulo, Brazil, 1999
Architecture Diploma, Honors, Universidad Finis Terrae, Santiago, Chile, 1997
Architectural studies, Universidade Federal Fluminense, Rio de Janeiro, Brazil, 1991-1992

ACADEMIC APPOINTMENTS
Assistant Professor, Dept. of Architecture, UC Berkeley, 2007 - present
Assistant Professor, Rensselaer Polytechnic Institute, 2005 - 2007
Founding member of Built Ecologies PhD/MSc program at Center for Architectural Sciences, New York, 2005-2007
Fulltime Lecturer, University of Pennsylvania, 2001 - 2005
Part-time Lecturer, Universidad Finis Terrae, Chile, 1997 - 1999

SELECTED AWARDS AND HONORS
- Hellman Faculty Award (promise of research distinction), UC Berkeley, 2009
- Semi-finalist, Philadelphia International Airport Competition (Escalator Walls), 2006
- Best Interior Design Merit Award (Dover DE Bay Health), Interior Design Magazine, 2006
- American Institute of Architects Academic First Prize, 2001
- Arthur Spayd Brooke Bronze Medal, University of Pennsylvania, 2001
SELECTED EXHIBITS AND PUBLICATIONS

- *BirdHousing*, Bird Ecologies, POSTMASTERS, New York, 2006
- *Fence.ing*, Responsive Architectures: 2006 Subtle Technologies Symposium, 2006 Toronto; *Sugar Wall System*, ProjectRowHouse, Houston, TX, Sense(s) Puzzle: Design Competition 2005 Peep Art Show, 2005
- Published in *AA Files Environmental Tectonics*
- Published in *Ecological: Metabolic Opera*, AA Agenda 6, London
- Published in *Responsive Architectures* (Toronto: Riverside Architectural Press, 2006)

RESEARCH


PROFESSIONAL MEMBERSHIPS

LEED accredited professional, USGBC; Member, the National Institute of Building Sciences; Associate Member, American Institute of Architects, member of Association for Computer Aided Design in Architecture (ACADIA).
LISA IWAMOTO
Associate Professor, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, MICHIGAN
Principal, IwamotoScott Architecture, San Francisco.

EDUCATION
M. Arch. with Distinction, Harvard University Graduate School of Design, Cambridge, MA, 1993
B.S., Civil Engineering, University of Colorado, Boulder, CO, 1985

ACADEMIC APPOINTMENTS
Associate Professor, Dept. of Architecture, University of California, Berkeley, 2007 - present
Assistant Professor, Dept. of Architecture, University of California, Berkeley, 2002 - 2007
Visiting Critic, Harvard Graduate School of Design, Harvard University, 2005
Assistant Professor of Practice / Lecturer, Taubman College of Architecture and Urban Planning, University of Michigan, 1997 - 2001
Muschenheim Fellow, Taubman College of Architecture and Urban Planning, University of Michigan, 1996 - 1997

SELECTED HONORS AND AWARDS
- Research+Design Award, Vousoir Cloud, Architect Magazine, 2009
- Wood Design Honor Award, Vousoir Cloud, Canadian Wood Council & Wood Design and Building, 2008
- Grand Prize, History Channel City of the Future: San Francisco 2108 design competition, 2008
- Next Generation Design Awards, Metropolis Magazine, IN-OUT Curtain, 2006
- Faculty Design Award (IN-OUT Curtain), Association of Collegiate Schools of Architecture, 2006
- Progressive Architecture Citation, 2:1 House, 52nd Annual P/A Awards, 2005
- Emerging Talent Design Award, American Institute of Architects California Council, 2003
- Young Architects Award, Material Process, New York Urban League, 2002
- First Place, Flemington Jewish Community Center, National Endowment for the Arts, 2001
- Five Design Awards, American Institute of Architects, San Francisco, 2002 - 2007

SELECTED GRANTS
- P.I., Urban Mapping of Athens, Greece, Rotch Foundation Traveling Studio Grant ($19,969) 2002

BOOKS AND PUBLICATIONS
- Ten peer reviewed articles or conference papers in Journal of Architectural Education; Association of the Collegiate Schools of Architecture conference proceedings; Association for Computer Aided Design in Architecture.
YEHUDA E. KALAY, Ph.D.

Professor, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, ISRAEL

EDUCATION
Ph.D., architecture, (computer-aided design) Carnegie Mellon University, 1982
M.S., architecture, Technion—Israel Institute of Technology, 1978
B.Arch., in architecture and town planning, Technion—Israel Institute of Technology, 1976

ACADEMIC APPOINTMENTS
Professor / Associate Professor, Department of Architecture, University of California, Berkeley, 1992 – present / Director, Center for New Media, University of California, Berkeley, 2004 - 2007
Lady Davis Visiting Professor, Faculty of Architecture & Town Planning, Technion - Israel Institute of Technology, 2002
Visiting Professor, Faculty of Architecture and Building Science, The University of Rome ‘La Sapienza,’ 2002
Professor / Associate Professor, Department of Architecture, School of Architecture and Planning, State University of New York at Buffalo, 1982 - 1992
Adjunct Professor / Adjunct Associate Professor, Department of Computer Science, State University of New York at Buffalo, 1987 - 1992
PROFESSIONAL APPOINTMENTS

Member, Quality Assessment Committee, Israeli Council for Higher Education (CHE), to review all Architecture programs in Israel, 2008 - 2009

Editor-in-Chief (Architecture), Automation in Construction, 1995 – 2007

President, Association for Computer Aided Design in Architecture (ACADIA), 1985 – 1986

SELECTED GRANTS

- Co-P.I., “UC-Light: Center for Ubiquitous Communication by Light,” sponsored by the University of California Multicampus Research Programs and Initiatives ($3.58-million), 2010 - 2014

SELECTED BOOKS

- New Heritage: Cultural Heritage and New Media, co-editor with Thomas Kvan, Janice Affleck (London: Routledge, 2007)

IN BRIEF

Kalay’s research focuses on digital and collaborative design. He has been Principal Investigator or co-P.I. of over 30 sponsored research projects, totaling more than $6.3 million.

He has published over 100 scholarly papers (over 70 peer-reviewed) and eight books. He has organized and chaired numerous international conferences, and lectured in 15 countries, including 24 cities in the U.S. and Canada (many of which as keynote or invited speaker).
RAYMOND LIFCHEZ
Professor, Department of Architecture, University of California, Berkeley
Director, education abroad program, 2005-2008

SELECTED CREATIVE WORK

- Library Exhibition cases, College of Environmental Design, 2007
  - Two cases, 17 feet long and 8+ feet high.
- Curator, Environmental Design: a New Modernism, 2009

SELECTED AWARDS AND RELATED PUBLICATIONS

- University of California Berkeley Citation, 2008
- *Architectural Design Collaborative Award*, for The Berkeley Prize, American Institute of Architects, 2009. The Berkeley Prize is an international, internet-based competition based on the premise that “architecture is a social art.” Since its founding in 1996-98, approximately 1,500 students in 26 countries have participated. The award, to be presented at the 2009 AIA National Convention and Design Exposition in San Francisco, recognizes and encourages distinguished achievements of those who have had a beneficial influence on or advanced the architectural profession.
- “Competing to Learn: The Berkeley Prize and the Social Art of Architecture” with Benjamin Clavan, *Places, a Forum of Environmental Design*, vol. 17, no. 1 (Spring 2005) p. 64-71
COMMITTEES

University: Judith Lee Stronach Baccalaureate Prize. An annual award since 2006

College: Judith Lee Stronach Summer Scholarships. An annual award since 2003

Department: Search Committee, 2008 – 2009
RONALD RAEL
Assistant Professor, Department of Architecture, University of California, Berkeley

Principal, Rael San Fratello Architects, Oakland, California

EDUCATION
M.Arch, Graduate School of Architecture, Planning and Preservation, Columbia University, 1998
B.Envd, College of Architecture and Planning, University of Colorado, 1994

ACADEMIC APPOINTMENTS
Assistant Professor, Dept. of Architecture, University of California, Berkeley, 2008 - present
Assistant Professor, College of Architecture, The University of Arizona, Spring 2008
Director & Professor in Residence, Charles E. Daniel Center for Building Research and Urban Studies, Genova, Italy, 2006 - 2007
Assistant Professor, School of Architecture, Clemson University, 2002 - 2005
Visiting Design Faculty, Southern California Institute of Architecture, 2002 - 2005
Visiting Senior Instructor / Senior Instructor, College of Architecture and Planning, University of Colorado, Boulder / Denver, 1999 - 2001
Teaching Assistant, Graduate School of Architecture, Planning and Preservation, Columbia University, 1997
SELECTED GRANTS, HONORS AND AWARDS

- Second Place, Architectum Miami Pier-Museum International Academic Competition.
- Graham Foundation for Advanced Studies in the Fine Arts, $10,000 for research, 2000
- First Place (Hay House), SECCA Home/House Competition 2003
- First Place, Deborah J. Norden Competition, Architectural League of New York, 2000

SELECTED PROFESSIONAL AND CREATIVE WORK

- El Santuario de los Pobladores, Conejos, Colorado, 2009
- Box House, Marfa, Texas, 2008
- Prada Marfa, Valentine, Texas, 2004
- Praxis: Journal of Writing + Building Issues 0-11

BOOKS AND SELECTED PUBLICATIONS


IN BRIEF

Rael’s research examines the convergence of digital, industrial, and non-industrial approaches to making architecture.
ANDREW M. SHANKEN, PH.D.
Assistant Professor, Department of Architecture, University of California, Berkeley

EDUCATION
Ph.D., History of Art, Princeton University, 1999
M.A., History of Art, Princeton University, 1996
B.A., Phi Beta Kappa, Growth and Structure of Cities/History, Haverford College, 1990

ACADEMIC APPOINTMENTS
Assistant Professor, Dept. of Architecture, University of California, Berkeley, 2004 - present
Assistant Professor, Art Department, Oberlin College, 2000 - 2004
Visiting Professor, History of Art, University of Pennsylvania, 1999 - 2000
Visiting Professor, Growth and Structure of Cities, Bryn Mawr College, Spring 2000

SELECTED GRANTS, HONORS, AND AWARDS
- Postdoctoral Fellowship, The Getty Foundation, 2003
- Arthur Kingsley Porter Prize, College Art Association, 2003
- Postdoctoral Fellowship, Institute for Advanced Study, Princeton University, 2003
- Visiting Scholar Fellowship (changed to an affiliation on request), Canadian Centre for Architecture, 2003
- Chester Dale Fellow, Center for the Advanced Study of Visual Arts (CASVA), the National Gallery of Art, 1998
- Pre-Doctoral Fellowship, Smithsonian Institution, 1997
SELECTED PROFESSIONAL AND CREATIVE WORK

- Just Jerusalem, design of Jerusalem in 2050, MIT-sponsored competition, co-designer with Hillary Mushkin
- National AIDS Memorial Competition, 2005 Finalist. Historical consultant to Raveevarn Choksombatchai
- Tsunami Memorial International Competition, sponsored by the nation of Thailand, Finalist, 2006 Historical consultant for Raveevarn Choksombatchai

BOOKS AND SELECTED PUBLICATIONS

- “Confederates on the Fairway: A Civil War Themed Subdivision in Rural Ohio, Landscape (September 2007)
- “Between Brotherhood and Bureaucracy: Joseph Hudnut, Louis I. Kahn and the American Society of Planners and Architects.” Planning Perspectives vol. 20, no. 2 (April, 2005) p. 147-175

IN BRIEF

Dozens of professional talks, invited lectures, and conference talks
JILL STONER

Associate Professor, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, CALIFORNIA

EDUCATION

M.Arch, University of Pennsylvania, 1980
B. A., Comparative Literature, New College, Florida, 1975

SELECTED DESIGN AWARDS

• WINNER (one of three) “Imagining Recovery,” an international competition sponsored by Columbia University, 2009
• AIA Merit Award (East Oakland School of the Arts), AIA San Francisco, 2007
• WINNER, San Francisco Portola Branch Library Design Competition, 2003; building completed 2009
• WINNER one of five, unranked, “Dead Malls” Los Angeles Forum for Architecture and Urban Design Competition, 2003
• Citation (Lowell Alternative High School), AIA San Francisco, 1998
• Finalist, East River National Design Competition, 1998
• Award (104 Terrace Avenue), American Wood Council, 1995
• Merit Award (104 Terrace Avenue), AIA San Francisco, 1994

SELECTED BUILT PROJECTS

• San Francisco Public Library Portola Branch, 2009
• East Oakland School of the Arts, 2007
• Oakland Public Library Children’s Room Renovation, 2003
• Lowell Alternative High School San Francisco, addition 1998
• Iroquois Residence, San Francisco (with Herman and Coliver Architects) 1996
• Rooftop Alternative Middle School, San Francisco (with Chester Bowles, AIA) 1995
MUSEUM EXHIBITIONS

- Drawings in the permanent collection, San Francisco Museum of Modern Art.
- Rubashov’s House, Berkeley Art Museum 1992
- Igitur’s House, Pennsylvania State University 1981

SELECTED PUBLICATIONS

- “Rain in the City,” in Alan Marcus and Deitrich Neumann, eds. Visualizing the City; (London: Routledge, 2007)

INVITED LECTURES

University of Arkansas, University of Washington; Cal Poly San Luis Obispo; New England; University of California, Berkeley; Tulane University; Rhode Island School of Design; University of Manchester; Auburn University; The Poet’s House New York; Roger Williams University

SERVICE

- Chair of Graduate Advisors, Department of Architecture, 2008 – present
M. SUSAN UBBELOHDE, LEED AP

Professor, Department of Architecture, University of California, Berkeley

Principal, Loios + Ubbelohde, Alameda

EDUCATION

M. Arch., University of Oregon, 1981
B.S. Architecture, University of Michigan, 1979
A.B. Urban Studies, Oberlin College, 1975

ACADEMIC APPOINTMENTS

Professor, Department of Architecture, University of California, Berkeley, 1994 - present
Associate Professor and Founding Faculty, University of California, San Diego, 1992 - 1993
Associate Professor / Assistant Professor, School of Architecture, University of Minnesota, 1985 - 1991
Assistant Professor, School of Architecture, Florida A&M University, 1983 - 1985
Assistant Professor, School of Architecture, Tulane University, 1981 - 1983

RECENT HONORS AND AWARDS

(for more, see Section 3.7.9)

• AIA COTE Top Ten Award (Chartwell School, Seaside CA) with EHDD Architects, 2009
• LEED Platinum Certification, 2008 | Design Honor Award for Energy + Sustainability, AIA San Francisco, 2007
• Next LA Honor Award, AIA Los Angeles (Art Center College of Design Student Housing), Pasadena CA) with Daly Genik Architects, 2008
• Sustainable Design Commercial Honor Award, AIA New York City Chapter, 2008 | Award of Excellence for Design, AIA New York State Chapter, 2007 | Merit Award, AIA San Francisco, 2007 (Apple Store Fifth Avenue, New York, NY with Bohlin Cywinski Jackson Architects)
RECENT PROFESSIONAL WORK

- Niles-Pereira Gallery, San Francisco CA: daylight performance for art gallery with borrowed and beamed daylighting for Ogrydziak/Prillinger Architects, 2009
- The Brower Center, Berkeley CA: Sustainability, daylighting, for 50,000 sf of office and public space, Solomon E.T.C., 2009.

SELECTED PUBLICATIONS

4.4.2 CONTINUING LECTURER / ADJUNCT RÉSUMÉS

The following are abbreviated *curricula vitae* for the Continuing Lecturers and Adjuncts.
MARVIN BUCHANAN, FAIA
Continuing Lecturer, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, CALIFORNIA
Principal, Buchanan Associates, Oakland, California.

EDUCATION
M. Arch., Yale University, 1966
B. Arch., University of California, Berkeley, 1965

ACADEMIC APPOINTMENTS
Continuing Lecturer / Lecturer, Department of Architecture, University of California, Berkeley, 2004 - present
Lecturer in Architecture, University of Texas in Austin, 1968
Lecturer in Architecture, Yale University, 1967

SELECTED HONORS AND AWARDS
- American Planning Association Planning Implementation Award, 1997; American Planning Association Advocacy Award, San Jose Housing Initiative Study, 1992
- American Wood Council Honor Award, 1993; Merit Award, 1991
- AIA California Council Community Design Award, 1979; AIA California Council Merit Award, 1993
• State of California’s Energy Efficient Office and Housing Competition, Merit Award, 1977; State of California, Governor’s Award, 1966.
• Joint American Academy in Rome & National Endowment for the Arts Mid-Career Fellowship, 1976
• Fellow, American Academy in Rome, 1976
• Progressive Architecture First Award, 1970; P/A Citations, 1962, 1965

PROFESSIONAL AND CREATIVE WORK
Principal, Lyndon/Buchanan Associates, 1978-2005. Over 100 designs built: planning and urban design projects, campus and educational facilities, development plans, affordable housing, laboratories and production facilities, public spaces, special facilities, and residences.

PUBLICATIONS
GERARD "RODDY" CREDON
Continuing Lecturer, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, CALIFORNIA, FLORIDA, NEW JERSEY, PENNSYLVANIA, ARIZONA, NEVADA, HAWAI'I
Principal, Allied Architecture + Design, San Francisco

EDUCATION
M.Arch, Graduate School of Design, Harvard University, 1988
B.Arch, School of Architecture, Tulane University, 1984

ACADEMIC APPOINTMENTS
Continuing Lecturer, Department of Architecture, University of California Berkeley, 1992 - present
Visiting Instructor, California College of the Arts, 1995 - 1999
Teaching Fellow / Teaching Assistant, Harvard College & Graduate School of Design, Harvard University, 1987 - 1988
Visiting Critic: Southern California Institute of Architecture; Graduate School of Design, Harvard University; Taubman College of Architecture and Urban Planning, University of Michigan; School of Architecture, University of California Los Angeles; School of Architecture, Rice University; School of Architecture and Landscape Architecture, University of British Columbia; School of Architecture, Tulane University.

SUPPORTING ACTIVITIES
Arcus Endowment Advisory Board and Award Committee, University of California Berkeley, College of Environmental Design, 2001 - present
The Berkeley Prize Committee, University of California Berkeley, College of Environmental Design, 2003-present
National Conference on the Beginning Design Student, Peer Abstract Review for the topic "Intersections: Design Education and Other Fields of Inquiry", 2005
AIA/ACSA Practice Education Institute, Steering Committee Member for the annual conference entitled “Politics, Practice and Education,” 1998


San Francisco Board of Supervisors Central Freeway Task Force, Appointed Board Member, 1995 - 1997


IN BRIEF


COMMUNITY SERVICE

Pro-Bono Professional Services provided to the Larkin Street Youth Center, Haight Ashbury Free Clinic, San Francisco Gay and Lesbian Film Festival.
JANET DELANEY, MFA
Continuing Lecturer, Department of Architecture, University of California, Berkeley

EDUCATION

M.F.A., Photography, San Francisco Art Institute, 1981
B.A., Fine Art with an emphasis in photography, San Francisco State University, 1975

SELECTED ACADEMIC APPOINTMENTS

- Continuing Lecturer, Dept. of Architecture, University of California, Berkeley, 1999 - 2009
- Lecturer, California State University East Bay, 1997 - 2001
- Lecturer, San Francisco Art Institute, 1991 - 1997
- Lecturer, Santa Clara University, 1986 - 89 and 1995
- Lecturer, College of San Mateo, 1980 - 1991

SELECTED GRANTS, HONORS AND AWARDS

- National Endowment for the Arts Fellowship, 1979, 1982 & 1986
- James D Phelan Award in Photography, 1979
- Photography Fellowship, Houston Center for Photography, 2001

SELECTED EXHIBITIONS

- Between Chaos and Grace, Southwestern College (San Diego), 2008
- Focused, Photographic Center Northwest (Seattle), 2005
- Picturing Domestic Space, SF Camerawork Gallery (San Francisco), 2002
- Discoveries Show, Los Angeles County Art Museum, 2002
- Blue Sky Gallery (Portland), 1999
- San Francisco Art Commission Gallery, 1998
Women Artist’s Series, Rutgers University, 1996
The Situated Image, University of California San Diego, 1987
Feminist Photographic, Hunter College, 1986
Social Issues, Banff Center, School of Fine Arts, Canada, 1984
Nicaragua Media Project, New Museum (New York), 1984
Nova Scotia College of Art & Design, Canada, 1983
California Photographers, Plymouth Art Center, Plymouth, England, 1979

BOOKS AND PUBLICATIONS INCLUDING DELANEY’S PHOTOGRAPHY
San Francisco Observed, by Ruth Silverman (San Francisco: Chronicle Books, 1986)

PUBLIC COLLECTIONS
Harry Ransom Humanities Research Center, University of Texas, Austin
Musée de la Photographie à Charleroi, Charleroi, Belgium
Bancroft Library, University of California, Berkeley
CHARLIE HUIZENGA
Associate Adjunct Professor, Department of Architecture, University of California, Berkeley

EDUCATION
M.S., Mechanical Engineering, University of California, Berkeley, 1983
B.A., Engineering Sciences, Dartmouth College, 1981

ACADEMIC APPOINTMENTS
Associate Adjunct Professor / Lecturer / Research Specialist, Dept. of Architecture, University of California, Berkeley, 1992 - present
Lecturer, Department of Architecture, University of Minnesota, 1989 - 1992

SELECTED AWARDS AND HONORS
- Ralph G. Nevins Physiology and Human Environment Award, American Society of Heating Refrigerating and Air-Conditioning Engineers, 2007
- California Clean Tech Open Energy Efficiency Prize, Adura Technologies, 2006
- Frederick Mann Award for Disciplinary Service, College of Architecture and Landscape Architecture, University of Minnesota, 1991

SELECTED GRANTS
- Virtual Thermal Comfort Engineering, Delphi Automotive, 2001 - 2009
- Occupant Indoor Environmental Quality Survey for the U.S. General Services Administration, Center for the Built Environment, UC Berkeley, 1999 - 2009
IN BRIEF

Dozens of scholarly articles and presentations on thermal comfort, energy efficient building operation, wireless measurement and control, high performance windows, post-occupancy evaluation.

Consultant in Energy Analysis, Thermal Comfort, Software Development.
KEITH DUNCAN PLYMALE, AIA

Continuing Lecturer, Department of Architecture, University of California, Berkeley

REGISTERED ARCHITECT, CALIFORNIA AND KENTUCKY
Principal, Volume21: Office For Architecture, San Francisco, California

EDUCATION
M.S. in architecture and building design, Columbia University, 1988
B. Arch, University of Kentucky, 1986

ACADEMIC APPOINTMENTS
Continuing Lecturer, Dept. of Architecture, University of California, Berkeley, 2001 - 2010
Adjunct Professor, California College of Arts and Crafts, 2002 - 2009
Associate Professor / Assistant Professor, College of Architecture, University of Kentucky, 1989 – 2001;
Director, Undergraduate Program, School of Architecture
Director, College of Architecture, University of Kentucky, 1998 - 2000
Visiting Assistant Professor, Department of Architecture, The Ohio State University, 1991

PROFESSIONAL EXPERIENCE
MWA (Michael Willis Architects), San Francisco, Oakland & Portland, 2000 - 2002
Plymale Studio, Lexington, Kentucky & Venice, Italy, 1992 - 1997
Atelier Wylde-Oubrerie, Columbus, Ohio & Lexington, Kentucky, 1988 - 1992
Bickel Gibson Architects, Louisville, Kentucky, 1986 - 1987
Studio di Leonardo Ricci, Architetto, University of Kentucky, Lexington, 1984
Thompson Airport Consultants, Hawthorne, New York, 1984
HONORS AND DISTINCTIONS

- Building Information Modeling Research Grant, Autodesk Inc., 2008
- Honor Award: The Miller House, Atelier Wylde-Oubrerie, AIA Kentucky / Indiana Region, 2000
- Outstanding Teacher of the Year, AIAS University of Kentucky Chapter, 1992 & 1993
- Alpha Rho Chi Medal for Merit, Service and Scholarship, University of Kentucky, 1986
- James L. Cogar Traveling Fellowship, 1986

ARCHITECTURAL CRITIC & JURY MEMBER

- Parsons Institute, New York, New York
- Drury College, Springfield, Missouri
- College of DuPage, Chicago, Illinois
- The School of the Art Institute of Chicago, Chicago, Illinois
- Boston Studio, Boston, Massachusetts
- Ural State Academy of Architecture and Art, Ekaterinburg, Russia
- Georgia Institute of Technology, Atlanta, Georgia
- University of Florida, Gainesville, Florida
- The Zenobio Institute for Architecture and Urban Studies, Venice, Italy
- New York Institute of Technology, Old Westbury, NY
- University of Pennsylvania, Philadelphia, Pennsylvania

PROFESSIONAL ORGANIZATIONS

The Architectural League of New York
Society for Phenomenology and Existential Philosophy
CHARLES M. SALTER, P.E.

Continuing Lecturer, Department of Architecture, University of California, Berkeley

PROFESSIONAL ENGINEER, CALIFORNIA AND NEVADA

Principal, Charles M. Salter Associates, Inc.

EDUCATION

M.B.A., Finance, Boston College, 1972
B.S. Art and Design, architecture with a minor in city planning, MIT, 1969
B.S.C.E., Structural Engineering with a minor in economics, Tufts University, 1965

ACADEMIC APPOINTMENTS

Continuing Lecturer, Dept. of Architecture UC Berkeley, 1973 - present
Adjunct Professor, California College of Arts & Crafts, 1998 - 2001

SELECTED HONORS

• Fellow of the Society, Acoustical Society of America, 2006
  Received “for contributions to the teaching of architectural acoustics and to its practical applications.”

• Allied Professions Honor Award, American Institute of Architects, California Council, 1998
  Received “in recognition of unique dedication and focused drive to enhance, support and significantly contribute to the advancement of architectural practice. The extensive knowledge displayed as an acoustical consultant, author and educator creates an invaluable balance that bridges the language among various disciplines. The three decades as an innovator, practitioner and mentor, has been instrumental in increasing awareness of crucial acoustical considerations in architectural design. The level of personal commitment coupled with industrious contributions, merit the highest admiration from the profession of architecture.”
BOOK


TEACHING AND RESEARCH SPECIALIZATIONS

Architectural acoustics, sound isolation, mechanical noise and vibration control, and environmental acoustics.

IN BRIEF

For more than 40 years, Mr. Salter has conducted a wide range of consulting work in the areas of architectural acoustics, noise control engineering, and environmental noise impact.
STEVEN SHARAFIAN, ESQ., J.D

Continuing Lecturer, Department of Architecture, University of California, Berkeley
Partner, Long & Levit LLP

EDUCATION
J.D., Law, University of Santa Clara, 1986
B.A. in architecture, University of California, Berkeley, 1983

ACADEMIC APPOINTMENTS
Continuing Lecturer, Department of Architecture, University of California, Berkeley, 1989 - present.

SELECTED GRANTS, HONORS AND AWARDS
- Special Achievement Award, American Institute of Architecture, San Francisco Chapter, 2009. The chapter called Sharafian “A wise friend and thoughtful counsel to dozens of architecture firms and AIA SF, his wisdom has helped shape the architecture profession in our City.” (http://www.aiasf.org/Programs/Awards_Program/Design_Awards/202.htm)

SELECTED PROFESSIONAL AND CREATIVE WORK
- Admitted to the United States District Court, North District of California.

SELECTED PUBLICATIONS AND PRESENTATIONS
IN BRIEF

Hundreds of presentations, articles, appearances, lectures on legal and loss prevention issues affecting design professionals.
JOSEPH SLUSKY
Continuing Lecturer, Department of Architecture, University of California, Berkeley

EDUCATION
M.Arch, University of California, Berkeley, 1969
Lund University, Lund, Sweden, Education Abroad, 1968
B.Arch, University of California, Berkeley, 1966

ACADEMIC APPOINTMENTS
Lecturer, San Francisco State University, 1978 - 1980

SELECTED AWARDS AND COMMISSIONS
US Embassy in Mexico City Grant, Antologia Escltorica exhibit, Museo del Pueblo de Guanajuato, 2008
Bayer Corporation Sculpture Commission, Bayer South Properties Plaza, Berkeley, 2001
City of Berkeley Sculpture Commission, Berkeley Marina Plaza, Berkeley, 1980
Eisner Prize, Department of Art, University of California, Berkeley, 1966

SELECTED SOLO EXHIBITIONS OF SCULPTURES AND DRAWINGS
Sculpture and Drawings, Galerie Johannesstrasse (Erfurt, Germany), 1996
Sculpture and Drawings, Smith Anderson Gallery (Palo Alto), 1992
New Sculpture, Dorothy Weiss Gallery (San Francisco), 1988
Richmond Art Center (Richmond), 1976
Mills College Art Gallery (Oakland), 1976
DeSaisset Art Gallery, University of Santa Clara, 1974

SELECTED BOOKS AND PUBLICATIONS

San Francisco Civic Art Collection: Guided Tour to Public Art, City and County of San Francisco (San Francisco
Art Commission, 1988)
The Art of the San Francisco Bay Area, 1945 - 1989, by Thomas Albright (Berkeley: University of California
Press, 1985)

IN BRIEF

Over 150 critical articles and reviews of exhibitions dating from 1969 to 2009
Participated in 26 solo exhibitions and over 175 group exhibitions dating from 1964 to 2009
4.5 VISITING TEAM REPORT FROM THE PREVIOUS VISITS

This section contains both the 2003 Visiting Team Report and the 2007 Focus Evaluation Team Report.

February 25, 2004

Robert M. Berdahl, Chancellor
University of California at Berkeley
Office of the President
Berkeley, CA 94720

Dear Chancellor Berdahl:

At the February 2004 meeting of the National Architectural Accrediting Board (NAAB), the board reviewed the Visiting Team Report for the University of California at Berkeley Department of Architecture.

The board noted the concern of the visiting team regarding several critical areas. As a result, the professional architecture program:

Master of Architecture (2 years)
Master of Architecture (3 years)

were formally granted a three-year terms of accreditation. The accreditation terms are effective January 1, 2004. The programs are scheduled for their next accreditation visit in 2007.

Accreditation is subject to the submission of Annual Reports. Annual Reports are due by June 1 and must include a response to each condition identified as not met in the Visiting Team Report, a brief summary of changes that have been made or may be made in the accredited program, and the two-page statistical report. Programs are strongly urged to also include in their Annual Reports a response to the causes of concern cited in their last Visiting Team Report. If an acceptable Annual Report is not submitted to the NAAB by the time of its fall board meeting, the NAAB may consider advancing the schedule for the program's next accreditation sequence. A complete description of the Annual Report process can be found on pages 41-42 of the 1998 Conditions and Procedures. (Changes to the process are included in the 2002 Addendum to the 1998 Conditions and Procedures.)

NAAB encourages public dissemination of information about each school contained in both the school's Architecture Program Report and the Visiting Team Report. If the Visiting Team Report is made public, then it is to be published in its entirety.

The visiting team has asked me to express its appreciation for your gracious hospitality.

Very truly yours,

Joseph P. Gliatta, Jr., FAIA
President

Enc. Visiting Team Report

cc: M. Mike Martin, Ph.D., Chair
Rodner, B. Wight, AIA, Team Chair
Visiting Team Members
University of California at Berkeley
Department of Architecture

Visiting Team Report

Master of Architecture (2 years)
Master of Architecture (3 years)

The National Architectural Accrediting Board
October 8, 2003

The National Architectural Accrediting Board (NAAB), established in 1946, is the sole agency authorized to accredit U.S. professional degree programs in architecture. Because most state registration boards in the United States require any applicant for licensure to have graduated from a NAAB-accredited program, obtaining such a degree is an essential aspect of preparing for the professional practice of architecture.
1. Summary of Team Findings

1. Team Comments

- Students have access to an impressive array of educational opportunities, which includes the research interest of the faculty and the ability to structure their own educational path.
- The newly renovated Wurster Hall has clearly re-energized the program and the college and it has elevated the quality of the programs resources such as studios, the shop and the library. The promise of future public space improvements will further enhance the physical environment.
- The Team recognizes that students have direct access to the rich research and professional environments of the region.
- The College's highly regarded library continues to be a valued resource, and with the new enhancements to its physical environment it is also a special place for students and faculty to be and to gather.
- The Team would also like to acknowledge the diversity of the student body. Their varied backgrounds and degrees coupled with the plethora of degree programs and disciplines offered in the college make this a special learning environment.
- The team was impressed with the balance between the deeply committed senior faculty and the recent hires in the teaching, research and service to the college and university community.

2. Progress Since the Previous Site Visit

No conditions or criteria were marked as unmet in the 1998 Visiting Team Report

3. Conditions Well Met

1.5 Architecture and Society
2.0 Information Resources
12.3 Research Skills
12.4 Critical Thinking Skills
12.9 Use of Priorities
12.10 Western Traditions
12.11 Non-Western Traditions
12.13 Environmental Conservation
12.20 Building Envelope Systems
12.26 The Context of Architecture

4. Conditions Not Met

12.14 Accessibility
12.19 Life-Safety Systems
12.21 Building Service Systems
12.22 Building Systems Integration
12.24 Building Code Compliance
12.29 Comprehensive Design
5. Causes of Concern

- There is without a doubt a great richness in the opportunities that students have to build their own curriculum based on a wide range of course offerings and research topics offered by the faculty; however this opportunity would benefit from more structure to assure compliance with the NAAB Performance Criteria.

- The College of Environmental Design and the Campus Facilities Department continue to miss the chance to benefit from a closer relationship during a very active campus redevelopment program.

- While students are exposed to the different disciplines within the college through course offerings and research of the faculty, the team did not see evidence that program was taking advantage of a formal relationship between itself and the other two departments in the college.

- There does not seem to be in place the necessary Information Technology support in the studio or to support the newly acquired digital equipment for the shop or to support the future strategic vision of the program.

- Based on the evidence presented in the Team Room there is an inconsistency in meeting the NAAB requirement for the comprehensive design.
II. Compliance with the Conditions for Accreditation

1. Program Response to the NAAB Perspectives

Programs must respond to the relevant interests of the five constituencies that make up the NAAB: education (ACSA), members of the practicing profession (AIA), students (AIAS), registration board members (NCARB), and public members.

1.1 Architecture Education and the Academic Context

The program must demonstrate that it both benefits from and contributes to its institutional context.

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The Department of Architecture exists within the College of Environmental Design, which also houses the Department of Landscape Architecture and Environmental Planning and the Department of City and Regional Planning. The university is a rich educational environment of the highest intellectual quality for professional architectural education. This context provides significant opportunities for students and faculty members to engage in interdisciplinary studies and research. Students in the undergraduate and graduate program are encouraged to take courses in other departments of the university.

Faculty members and administrators are active in a variety of activities throughout the university. They serve on numerous academic and standing operational committees.

1.2 Architecture Education and Students

The program must demonstrate that it provides support and encouragement for students to assume leadership roles during their school years and later in the profession, and that it provides an interpersonal milieu that embraces cultural differences.

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The school supports and encourages teaching assistant positions for students which foster and develop leadership skills. The program’s flexible curriculum demands students take an active role and “ownership” in, their present education and future professional careers. Several courses are designed to expose students to these necessary skills including courses on internship, case studies that include professional opportunities, the Friedman Professor of Practice and professional practice.

Considering that few graduate students are members of the American Institute of Architecture Students, there is no apparent organization for these students to develop professional and leadership skills.

There is a strong sense of community among students. The student body is not only culturally diverse but the wide range of their educational backgrounds provides the opportunity for them to learn from each other. Studio dialog is active and students frequently work on collaborative projects.
1.3 Architecture Education and Registration

The program must demonstrate that it provides students with a sound preparation for the transition to internship and licensure.

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The visiting team found broad understanding of the transition from the academy to internship and licensure.

1.4 Architecture Education and the Profession

The program must demonstrate how it prepares students to practice and assume new roles within a context of increasing cultural diversity, changing client and regulatory demands, and an expanding knowledge base.

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The program demonstrates a significant engagement with the professional community through its use of adjunct and visiting instructors. Several programs are provided to both bring the profession to the school and to bring the students to the profession throughout the Bay Area. The program gives the student insight to the various roles played by architects through its diverse educational paths with strong emphasis on research. The students are made aware of their social obligations and professional ethics. The strength of the program is in its diversity. This diversity along with counseling gives the student exposure to the broad spectrum of opportunities with the profession.

1.5 Architecture Education and Society

The program must demonstrate that it not only equips students with an informed understanding of social and environmental problems but that it also develops their capacity to help address these problems with sound architecture and urban design decisions.

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This program clearly and consistently demonstrates a profound awareness of social and environmental issues and seeks sound and lasting architectural and urban design processes and solutions, which address these issues. The curriculum reflects the awareness of the administration and faculty, but nowhere is this understanding made clearer than in the student work. The independent thesis projects in particular show a uniform and comprehensive commitment to architecture as a social and environmental art. This criterion is well met.
2. Program Self-Assessment

The program must provide an assessment of the degree to which it is fulfilling its mission and achieving its strategic plan.

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The Program's strategic plan articulates numerous meritorious and lofty goals within three major components: "The Nature of Architecture and its Context", "Design Education as Multi-faceted Critical Exploration", and "Leadership through Excellence. Measurement of the strategic plan's success is largely by informal assessment of student quality and success, as well as respect of other institutions and the profession for program and its graduates.

3. Public Information

The program must provide clear, complete and accurate information to the public by including in its catalog and promotional literature the exact language found in appendix A-2, which explains the parameters of an accredited professional degree program.

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4. Social Equity

The program must provide all faculty, students, and staff—irrespective of race, ethnicity, creed, national origin, gender, age, physical ability, or sexual orientation—with equitable access to a caring and supportive educational environment in which to learn, teach, and work.

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While this condition is met, the team was disappointed with the lack of adequate representation of African Americans within the student and faculty populations. The program should consider strengthening its links to the university's community outreach programs, mentoring programs with its alumni and marketing itself more effectively within the African American communities.

5. Human Resources

The program must demonstrate that it provides adequate human resources for a professional degree program in architecture, including a sufficient faculty complement, an administrative head with enough time for effective administration, administrative and technical support staff, and faculty support staff.

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While this condition is met, the team expressed concern regarding cutbacks in shop staff and the need for increasing the information technology staff to support increased college demands and equipment purchases.
6. Human Resource Development

Programs must have a clear policy outlining both individual and collective opportunities for faculty and student growth within and outside the program.

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7. Physical Resources

The program must provide physical resources that are appropriate for a professional degree program in architecture, including design studio spaces for the exclusive use of each full-time student; lecture and seminar spaces that accommodate both didactic and interactive learning; office space for the exclusive use of each full-time faculty member; and related instructional support space.

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The extensive renovation of Wurster Hall addressed most of the program needs. The current construction on the exterior plaza and the proposals exhibited by the faculty for the renovation of several public and exhibition spaces will enhance interaction with the university community.

8. Information Resources

The architecture librarian and, if appropriate, the staff member in charge of visual resources or other non-book collections must prepare a self-assessment demonstrating the adequacy of the architecture library.

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The Environmental Design Library continues to be a valued resource. This criterion is met.

9. Financial Resources

Programs must have access to institutional support and financial resources comparable to those made available to the other relevant professional programs within the institution.

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The team shares the program's concern regarding the impact of potential cutbacks due to the present California budget crisis. University leadership offered assurance that cutbacks are expected to be limited to minor support services. However, the program is currently in need of additional support in the areas of technical services for shop and computing.
The visiting team was impressed with the level of support available from the nearly $15 million Architecture Department endowment.

10. Administrative Structure

The program must be a part of, or be, an institution accredited by a recognized accrediting agency for higher education. The program must have a degree of autonomy that is both comparable to that afforded to the other relevant professional programs in the institution and sufficient to assure conformance with all the conditions for accreditation.

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New leadership and a new management system have been introduced this fall and it appears, as though it will provide additional opportunities to manage the program and student progress.

The present system of rotating Department Head is perceived by students as “lack of direction and vision” and by the faculty as not contributing to an individual’s service to the university. The University should address the student and faculty perceptions of Architecture Department Head.

11. Professional Degrees and Curriculum

The NAAB only accredits professional programs offering the Bachelor of Architecture and the Master of Architecture degrees. The curricular requirements for awarding these degrees must include three components—general studies, professional studios, and electives—which respond to the needs of the institution, the architecture profession, and the students respectively.

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12. Student Performance Criteria

The program must ensure that all its graduates possess the skills and knowledge defined by the performance criteria set out below, which constitute the minimum requirements for meeting the demands of an internship leading to registration for practice.

12.1 Verbal and Writing Skills

Ability to speak and write effectively on subject matter contained in the professional curriculum

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12.2 Graphic Skills

Ability to employ appropriate representational media, including computer technology, to convey essential formal elements at each stage of the programming and design process

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The students consistently demonstrate excellent use of a variety of representation techniques including college, computer modeling and process models. The college's facilities and equipment provide students the chance to experiment with model-making materials.

However, student projects are consistently missing the necessary labeling including scales, north arrows, room labels and project titles needed to properly orient, understand and evaluate the success of a project.

12.3 Research Skills

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<th>Ability to employ basic methods of data collection and analysis to inform all aspects of the programming and design process</th>
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This criterion is well met. Research skills are well met by all students throughout the curriculum. However, Arch 209C - Final Project Preparation Seminar and available elective research projects are particularly effective.

12.4 Critical Thinking Skills

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<th>Ability to make a comprehensive analysis and evaluation of a building, building complex, or urban space</th>
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This criterion is well met. The inherent nature of Berkeley and the students who elect to attend the school collectively contribute to enhanced critical thinking skills.

12.5 Fundamental Design Skills

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<th>Ability to apply basic organizational, spatial, structural, and constructional principles to the conception and development of interior and exterior spaces, building elements, and components</th>
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12.6 Collaborative Skills

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<th>Ability to identify and assume divergent roles that maximize individual talents, and to cooperate with other students when working as members of a design team and in other settings</th>
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The visiting team was disappointed to not see more evidence of collaboration within the College of Environmental Design and the university at large.

12.7 Human Behavior

Awareness of the theories and methods of inquiry that seek to clarify the relationships between human behavior and the physical environment

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12.8 Human Diversity

Awareness of the diversity of needs, values, behavioral norms, and social and spatial patterns that characterize different cultures, and the implications of this diversity for the societal roles and responsibilities of architects

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12.9 Use of Precedents

Ability to provide a coherent rationale for the programmatic and formal precedents employed in the conceptualization and development of architecture and urban design projects

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This criterion is well met. Studio projects often analyze and diagram precedents for use in conceptualizing ideas and representing process in final presentations. Arch 201 – Core Studies in Architectural Design is exemplary.

12.10 Western Traditions

Understanding of the Western architectural canons and traditions in architecture, landscape, and urban design, as well as the climatic, technological, socioeconomic, and other cultural factors that have shaped and sustained them

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This criterion is well met.
12.11 Non-Western Traditions

Awareness of the parallel and divergent canons and traditions of architecture and urban design in the non-Western world

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This criterion is well met.

12.12 National and Regional Traditions

Understanding of the national traditions and the local regional heritage in architecture, landscape, and urban design, including vernacular traditions

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12.13 Environmental Conservation

Understanding of the basic principles of ecology and architects' responsibilities with respect to environmental and resource conservation in architecture and urban design

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This criterion is well met.

12.14 Accessibility

Ability to design both site and building to accommodate individuals with varying physical abilities

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The visiting team was not able to find consistent evidence to demonstrate each student has the ability or understanding to accommodate individuals with varying physical abilities.

12.15 Site Conditions

Ability to respond to natural and built site characteristics in the development of a program and design of a project

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### 12.16 Formal Ordering Systems

Understanding of the fundamentals of visual perception and the principles and systems of order that inform two- and three-dimensional design, architectural composition, and urban design

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### 12.17 Structural Systems

Understanding of the principles of structural behavior in withstanding gravity and lateral forces, and the evolution, range, and appropriate applications of contemporary structural systems

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While this criterion was met, many of the projects displayed implausible structural conditions which would have benefited from earlier faculty intervention.

### 12.18 Environmental Systems

Understanding of the basic principles that inform the design of environmental systems, including acoustics, lighting and climate modification systems, and energy use

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### 12.19 Life-Safety Systems

Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their subsystems

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The visiting team was not able to find consistent evidence to demonstrate each student has the understanding of the basic principles that inform the design and selection of life-safety systems.

### 12.20 Building Envelope Systems

Understanding of the basic principles that inform the design of building envelope systems

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This criterion is well met. In depth opportunities are provided to understand the design principles of building envelope systems in technology, theory and research course work as well as in the design studio.

12.21 Building Service Systems

Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems

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The visiting team was not able to find evidence that all students are provided an opportunity to obtain an understanding of the principles of vertical transportation, plumbing, communication, security, and fire protection systems.

12.22 Building Systems Integration

Ability to assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design

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While course work was able to demonstrate students' understanding and ability regarding structural, environmental and exemplary building envelope systems, the visiting team was not able to find consistent evidence of the students' ability to integrate building service systems into building design.

12.23 Legal Responsibilities

Understanding of architects' legal responsibilities with respect to public health, safety, and welfare; property rights, zoning and subdivision ordinances; building codes; accessibility and other factors affecting building design, construction, and architecture practice

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12.24 Building Code Compliance

Understanding of the codes, regulations, and standards applicable to a given site and building design, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, means of egress, fire protection, and structure

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The visiting team was not able to find consistent evidence of student understanding of building code compliance.

12.26 Building Materials and Assemblies

Understanding of the principles, conventions, standards, applications, and restrictions pertaining to the manufacture and use of construction materials, components, and assemblies

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12.28 Building Economics and Cost Control

Understanding of the fundamentals of development financing, building economics, and construction cost control within the framework of a design project

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12.27 Detailed Design Development

Ability to assess, select, configure, and detail as an integral part of the design appropriate combinations of building materials, components, and assemblies to satisfy the requirements of building programs.

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12.28 Technical Documentation

Ability to make technically precise descriptions and documentation of a proposed design for purposes of review and construction

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12.29 Comprehensive Design

Ability to produce an architecture project informed by a comprehensive program, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to the program’s design criteria

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University of California at Berkeley
Visiting Team Report
October 4-6, 2003

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The nature of the Berkeley architecture program provides faculty and students rich opportunities to investigate and explore rich and individual interests in research, theory and design. Flexibility to pursue individual interests is reinforced by a combination of vertical studios and the opportunity to investigate a theoretical thesis topic. The visiting team was not able to find consistent evidence that all students have the ability to produce a comprehensive architecture design project.

12.30 Program Preparation

Ability to assemble a comprehensive program for an architecture project, including an assessment of client and user needs, a critical review of appropriate precedents, an inventory of space and equipment requirements, an analysis of site conditions, a review of the relevant laws and standards and an assessment of their implications for the project, and a definition of site selection and design assessment criteria

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12.31 The Local Context of Architectural Practice

Understanding of the evolving legal context within which architects practice, and of the laws pertaining to professional registration, professional service contracts, and the formation of design firms and related legal entities

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Although this criterion is met, the team feels it important to stress that the program needs to make the students fully aware of the unique registration practices of California and the ability to reciprocate with the states.

12.32 Practice Organization and Management

Awareness of the basic principles of office organization, business planning, marketing, negotiation, financial management, and leadership, as they apply to the practice of architecture

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12.33 Contracts and Documentation

Awareness of the different methods of project delivery, the corresponding forms of service contracts, and the types of documentation required to render competent and responsible professional service

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University of California at Berkeley
Visiting Team Report
October 4-8, 2003

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12.34 Professional Internship
Understanding of the role of internship in professional development, and the reciprocal
rights and responsibilities of interns and employers

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12.35 Architects' Leadership Roles
Awareness of architects' leadership roles in project execution from inception, design, and
design development to contract administration, including the selection and coordination of
allied disciplines, post-occupancy evaluation, and facility management

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12.36 The Context of Architecture
Understanding of the shifts which occur—and have occurred—in the social, political,
technological, ecological, and economic factors that shape the practice of architecture

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This criterion is inherently well met within the social, political, technological and ecological
context of the Berkeley environment.

12.37 Ethics and Professional Judgment
Understanding of the ethical issues involved in the formation of professional judgments in
architecture design and practice

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III. Appendices

Appendix A: Program Information

1. History and Description of the Institution

   The following text is taken from the 2002 University of California at Berkeley Architecture Program Report:

   The University of California is a state-chartered and largely state-supported institution. Its chief administrative officer is President Richard C. Atkinson who is directly responsible to the Regents for the conduct of the university's academic, business, and fiscal operations.

   Berkeley is the oldest and the largest of the nine campuses of the University of California system. Chief administrative officer of the Berkeley campus is Chancellor Robert Berdahl. Berkeley, known for its strong commitment to academic and professional excellence, offers through its fourteen colleges and schools a full range of programs in the usual academic and professional disciplines, many of which are rated among the best in the nation, and some among the best in the world.

2. Institutional Mission

   The following text is taken from the 2002 University of California at Berkeley Architecture Program Report:

   The Office of the Chancellor has established the following priorities as part of the institutional mission. These priorities were published in the 2001-2002 Fiscal Year Chancellor's Budget Report dated November 30, 2002.

   • To sustain academic and faculty preeminence so that intellectual and scholarly leadership can flourish in every field.

   • To protect and enhance the research environment so that we continue to carry out research that addresses society's most pressing issues and problems.

   • To advance student learning by integrating benefits of technology, curriculum innovation, interdisciplinary collaboration, and research opportunities.

   • To support an inclusive campus community by enhancing access and opportunity for students, faculty and staff, and creating a safe, humane, caring place.

   • To improve organizational effectiveness across campus by streamlining processes, providing needed professional development, and striving for continual improvement so that we can maximize our core teaching and research efforts.

3. Program History

   The following text is taken from the 2002 University of California at Berkeley Architecture Program Report:

   Limited instruction in architecture began in Berkeley in 1884 under the direction of Bernard Maybeck. In 1903, John Galen Howard, then supervising architect of the campus, established an atelier next to his office. In 1913, this atelier was moved to a new
building, and the School of Architecture was formally established, later becoming a
department in the College of Letters and Science. In 1953, in recognition of architecture's
professional status, the College of Architecture was founded under the direction of
William Wurster.

In 1950, then-President Sproul had requested a review of the Department of City and
Regional Planning, suggesting its possible consolidation with other departments. In 1952,
a review committee, chaired by Professor T. J. Kent, Jr., with support from Professor
Wurster, recommended that the university establish "a new College of Planning and
Design." A second committee, including Professor H. L. Vaughan of Landscape
Architecture, Professor Francis Violich of Landscape Architecture and City and Regional
Planning, and Professor Vernon Demars of Architecture, explored the feasibility of this
recommendation. In 1957, a formal proposal for a "College of Environmental Design" was
made to the university. The proposal was accepted in April 1959, with Architecture
becoming a department of the College of Environmental Design in the fall of that year. In
1965 the college and the department moved to its new building, William and Catherine
Bauer Wurster Hall.

Also in 1964, the department chose to phase out the five-year Bachelor of Architecture
degree program and to replace it with a Master of Architecture degree program as its
professional program. This program is divided into three options: Option 1, one year, for
students with a previous professional degree in architecture; Option II, two years, for
students with an A.B. degree with a major in architecture (4 + 2 Program); and Option
111, three years, for students with degrees in fields other than architecture (degree + 3
program). Options 11 and 111 have been accredited by NAAB continuously since they
were established.

In 2000, an extensive renovation of Wurster Hall began and is now complete. The project
of reoccupying Wurster is ongoing and it is a period of excitement and renewal for our
students and faculty. Over the next several years we will be continuing improvements
throughout Wurster Hall.

4. Program Mission

The following text is taken from the 2002 University of California at Berkeley Architecture
Program Report:

As part of our ongoing commitment to maintaining a relevant program mission, in 1996,
the faculty of the Department of Architecture established the following premises for our
educational program:

I. WE CARE ABOUT THE PRUDENT DESIGN AND USE OF BUILT AND
   NATURAL RESOURCES

   Therefore, we should:

   • Offer positive visions of the relationship between building decisions and
     health of the planet
   • View issues of environmental response and resource conservation as
     inspirations for design rather than as constraints
   • Learn about the consequences of design decisions by investigating
     performance of existing buildings
II. WE TRANSMIT AND EXTEND THE IMAGINATIVE HERITAGE EMBODIED IN ARCHITECTURE

Therefore we should.

- Develop concepts of excellence by challenging and confirming or extending existing standards
- Encourage a large inclusive view of architecture, provide for detailed, vivid examination and criticism
- Explore implicit value assumptions, and place work in context of heritage
- Show relation of work to precedents and demonstrate extensions of heritage

III. WE ASSESS THE OPERATIONAL PERFORMANCE OF BUILDING ELEMENTS AND TECHNIQUES AND EXPLORE THEIR EXPRESSION POTENTIAL

Therefore we should

- Understand a wide range of physical performance attributes (environmental, structural, space use, occupant response)
- Consider how selection of physical elements and the way they are shaped can be recognized as traces of thought.
- Create model conditions to study, teach, explore, and analyze processes of construction
- Encourage integration of thought and emotion in rendering judgments
- Establish a study spectrum that ranges across theory, criticism and practice
- Account for capacities to change

IV. WE FOREGROUND THE ACTIONS AND PRESENCE OF PEOPLE

Therefore, we should

- Create places that foreground people
- Recognize that design is a collaborative act and that the creation of our built environment is a broad, multidisciplinary endeavor
- Articulate the structure of everyday actions
- Study present uses and changes in building
- Care for the concerns of community
- Give place for the voices of those to be involved
- Attend to people within the Department and the College

V. WE UNDERSTAND THAT INDIVIDUAL WORKS ARE EACH A PART OF A LARGER WHOLE

Therefore we should:

- Always set projects in context and as context
- Recognize that works change people’s minds
- Study the existing structures of a place (built and natural)
- Project a sense of always being “inside” at all environmental levels

VI. WE ARE FOUNDED ON AND WILL EXTEND OUR DIVERSITY
Therefore we should:

- Support actions that lead to a diverse composition of student body and faculty, while maintaining and expanding intellectual diversity (i.e., fields of study, points of view.)
- Provide opportunities for continuing exchange with many different intellectual communities and communities of need.
- Nourish critical thought by providing ample opportunities for thoughtful dialogue among faculty; between faculty/students; between professional students/Ph.D., M.S. students; and with the profession.
- Educate for a variety of roles and teach many modes of action.
- Maintain loose boundaries on investigation and curricular requirements.
- Examine diversity of cultures by providing a training ground for an expansive view of history, the social and cultural factors underlying architecture, and methods of construction, assessment and design.

5. Program Strategic Plan

The following text is taken from the 2002 University of California at Berkeley Architecture Program Report:

Every three to five years, the faculty determine goals within the framework established by our program mission. In 1998, the Department of Architecture adopted the following goals as part of our strategic plan:

A. The Nature of Architecture and its Context

1. Support multiple forms of investigation and discourse regarding the nature of architecture and the ways in which it relates to society and its inhabitants.
2. Advance programs of research within the Department that contribute to understanding the built environment, its evolution and change and the social, cultural, technological and ecological processes that can shape thinking about environmental design. Strengthen the presence of research and doctoral education.
3. Establish programs and sources of communication that link professional experience, the issues raised in contemporary practice, problems faced by communities, and the prospects offered by academic exploration and examination.
4. Give renewed attention to the courses and structure of our undergraduate offerings, their objectives, scope, availability, enrollment, etc. Expand their role in the College and the University, and their role in general citizen education regarding architecture and the design of urban places. Make the study of our built environment, the changes affecting it: the values embedded in it and the opportunities it affords into a recognized part of general education.

B. Design Education as Multi-Faceted Critical Exploration

1. Provide excellent design education where the making of forms and spaces is grounded in imaginative, critical consideration of urban, social, environmental, aesthetic and construction issues; where the conception of design is centrally concerned with how architecture becomes part of a
larger setting and takes account of the multiple ways in which it enters into people's lives.

2. Create opportunities for professional students to encounter and learn from many different people and settings; diverse faculty, staff, visitors, internships, site visits, construction experience, internships, technological exploration, research and teaching assistantships, community service, and student initiatives.

3. Make available to our students a wide array of means for representing and studying environmental form and the ways in which it may be experiences and thought about by inhabitants. Make certain that they have access to computer technology that will be instrumental in enabling their ability to conceive and rigorously examine forms and spaces, and that students who intend to become architects have the opportunity to develop the skills and tools necessary to enter the profession in an effective way.

4. Be certain that our professional graduates have an understanding of basic building science and have had preliminary experience with the processes of building; with how to designate and place building construction materials and to make appropriate use of technological resources.

C. Leadership Through Excellence

1. Become a vital source of critical stimulus in architecture, through our teaching, research, internal discussions and outreach activities.

2. Make the Department of Architecture an intellectually stimulating, personally satisfying and productive working environment for faculty and students.

3. Foster the development of a professional culture of articulate and rigorous examination and argument.

4. Promote discussion and exploration of the ethical issues involved in the making of places, buildings, and research constructs and academic programs. Ensure that students are aware of the value contexts in which they work. Bring members of the Department together with faculty and programs in other departments and centers; augment contacts with professional groups and alumni.

5. Reinforce teaching excellence in the programs; give support to faculty initiatives, encourage faculty and student discussion and debate regarding pedagogical issues, provide for mentoring and counsel. Develop new means for measuring the effectiveness of courses, programs and teachers.
Appendix B: The Visiting Team

Team Chair, Representing the ACSA
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Bradley D. Schulz, AIA
KGA Architecture, Inc.
4495 South Polaris
Las Vegas, NV 89103
(702) 367-6900
(702) 367-2043 fax
brad@kgarchitecture.com

Representing the AIAS
JoAnne K. Flebbe
5875 South West 74th Terrace
Apartment North 41
South Miami, FL 33143
(305) 863-2871
joanneflebbe@hotmail.com

Representing the NCARB
Richard A. Moorhead, AIA
Image Group, Inc.
403 Center Ave, Suite 300
Moorhead, MN 56560
(218) 233-2062
(218) 233-2575 fax
RMoorhead@uswest.net

Observers
Michael John McCall, AIA
McCall Design Group
550 Kearny Street, Suite 710
San Francisco, CA 94108
(415) 288-8150
(415) 288-8181
mike@mccallidesign.com

Derek Parker, FAIA, RIBA, FACHA
Anshen + Allen
901 Market Street
San Francisco, CA 94103
(415) 862-6500
(415) 862-9523
derek.parker@anshen.com
Appendix C: The Visit Agenda

Saturday, October 4, 2003

Afternoon  Team arrival and check-in  Bancroft Hotel
2:00     Team Chair tours Team Room  170/172 Wurster
6:00     Team introductions  Bancroft Hotel
8:30     Team Orientation  170/172 Wurster
team choice
7:30     Team dinner

Sunday, October 5, 2003

7:00 – 8:00  Team only breakfast  team choice
8:00 – 10:00 APR review and assembly issues and questions  170/172 Wurster
10:00 – 10:30 Program I seed overview of the Team Room  170/172 Wurster
10:30 – 12:00 Initial review of student work  Faculty Club
12:00 – 1:30 Team lunch with program administrators  170/172 Wurster
1:30 – 3:15 Tour of facilities  Wurster Lobby
3:30 – 4:30 Entrance meeting with faculty  170/172 Wurster
team choice
4:30 – 6:00 Continued review student work
6:00 –  6:00 Team only dinner followed by debriefing session

Monday, October 6, 2003

7:30 – 9:00  Team breakfast with program head  Bancroft Hotel
9:15 – 9:45  Entrance meeting with dean  230 Wurster
10:00 – 10:30 Entrance meeting with provost/vice provost  200 California Hall
10:45 – 12:30 Faculty panel discussion of Design Education and Preparation for the Profession with Renee Chow, Doryln Lyndon, Richard Fernau, Renee Davids, Stanley Seiutowitz, Lisa Iwamoto Mark Anderson, Sam Davis, Anthony Burke, Adele Santos
12:00 – 1:45 Lunch in Team Room and continued review of student work  1000 Wurster
2:00 – 3:00  School-wide entrance meeting with students  170/172 Wurster
3:00 – 4:30  Faculty Panel Discussion of How Students Achieve Technical Understanding with Chris Benton, Dana Buntrock, Gail Brager, Susan Ubbelohde, Gary Block, Ed Arons, Yehuda Kalay
4:30 – 5:30 Continued review of student work  1000 Wurster
5:30 – 7:00  Reception with faculty, administrators, alumni and local practitioners  170/172 Wurster
7:00 –  Team only dinner followed by debriefing session  Wurster Lobby

Tuesday, October 7, 2003

8:30 – 9:30  Breakfast with faculty panel discussing What Makes Our Department Distinctive?  Faculty Club
Doryln Lyndon, J. P. Protzen, Stephen Tobriner, Nezar AlSayyad, Sam Davis, Galen Crazn, Paul Groth
9:30 -12:00  Continued review of student work  170/172 Wurster
12:00 – 1:30  Lunch with student leaders
1:30 – 3:00  Discussion of context for the professional program
            and faculty research activities (undergraduate, MSc,
            PhD, UD programs)
            Nazar Alsawad, Ray Lifchez, Yehuda Kaley, Ed Arens,
            Paul Groth, Peter Bossoliman, Greg Crysler,
            J.P. Protzen, Galen Cranz
3:00 – 6:00  Complete review of student work
6:30 –  7:00  Team only dinner followed by debriefing session
8:00 – 9:30  Team continue to work on draft report

Wednesday, October 8, 2003
7:00 – 7:30  Check out of hotel
7:30 – 8:15  Team breakfast with program head
8:30 – 9:15  Exit meeting with dean
9:30 – 10:00 Exit meeting with provost/vice provost
10:30 – 11:30 School-wide exit meeting w/ faculty and students
IV. Report Signatures

Respectfully Submitted,

[Signatures]

Representing the ACSA
Rodger B. Wright, AIA
Team Chair

Representing the AIA
Bradley D. Schultz, AIA
Team member

Representing the AIAS
JoAnne K. Fiebe
Team member

Representing the NCARB
Richard A. Moorhead, AIA
Team member

Observer
Michael J. McCall, AIA

Observer
Derek Parker, FAIA, RIBA, FACHA
November 5, 2007

Robert C. Dynes
President
University of California at Berkeley
2087 Addison Street
Berkeley, CA 94704

Dear President Dynes:

After reviewing the Annual Report submitted by the University of California at Berkeley Department of Architecture as part of the focused evaluation of its Master of Architecture program, in conjunction with the Evaluation Team Report, the National Architectural Accrediting Board (NAAB) has found that the changes made or planned by the program to remove the identified deficiencies are satisfactory.

The program will be required, however, to continue reporting on these deficiencies as part of its Annual Report to the NAAB, as well as any other deficiencies and causes of concern listed in the most recent Visiting Team Report and any changes made in the program that may change its adherence to the conditions for accreditation.

The next comprehensive visit for the University of California at Berkeley Department of Architecture remains unchanged and is scheduled for 2010.

If you have any questions regarding this matter, please contact the NAAB office.

Very truly yours,

R. Wayne Drummond, FAIA
President

Enc. Visiting Team Report

cc: Mary Comerio, Chair
R. Wayne Drummond, FAIA, Team Chair
Richard A. Mooreshead, AIA
University of California at Berkeley  
Department of Architecture  

Focus Evaluation Team Report  

Master of Architecture (2 years)  
Master of Architecture (3 years)  

The National Architectural Accrediting Board  
October 2, 2007  

The National Architectural Accrediting Board (NAAB), established in 1940, is the sole agency authorized to accredit U.S. professional degree programs in architecture. Because most state registration boards in the United States require any applicant for licensure to have graduated from an NAAB-accredited program, obtaining such a degree is an essential aspect of preparing for the professional practice of architecture.
Table of Contents

I. Summary of Team Findings

1. Team Comments
2. Progress Since the Previous Site Visit

Student Performance Criteria

12.14 Accessibility
12.19 Life Safety Systems
12.21 Building Service Systems
12.22 Building Systems Integration
12.24 Building Code Compliance
12.29 Comprehensive Design

II. Appendices:

A. Program Information
   The Program Information and 2004 VTR are on file with NAAB
B. The Visit Agenda
C. The Visiting Team

IV. Report Signatures
II. Progress Since the Previous Site Visit

Team findings concerning the conditions not met in 2004 are summarized by each condition below. The NAAB Student Performance Criteria is stated along with the previous team comments and those of the Focused Evaluation Team:

12.14 Accessibility

Ability to design both site and building to accommodate individuals with varying physical abilities

The visiting team was not able to find consistent evidence to demonstrate each student has the ability or understanding to accommodate individuals with varying physical abilities.

Focus Evaluation Findings

The ability to design to accommodate individuals with varying physical abilities has been demonstrated in Comprehensive Design Studio 201.

12.19 Life Safety Systems

Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their subsystems

Previous Team Report: The visiting team was not able to find consistent evidence to demonstrate each student has the understanding of the basic principles that inform the design and selection of life-safety systems.

Focus Evaluation Findings

Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their subsystems has been demonstrated in Comprehensive Design Studio 201; as well as in-depth coverage of seismic life-safety issues in Seismic and Construction 293.

12.21 Building Service Systems

Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems

Previous Team Report: The visiting team was not able to find that all students are provided an opportunity to obtain an understanding of the principles of vertical transportation, plumbing, communication, security and fire protection systems.
Focused Evaluation Findings

Berkeley’s introduction of the Comprehensive Design Studio 201 provides a structure for ensuring that all students have the ability to produce a comprehensive design project. Demonstration of this ability is also reinforced in the student thesis projects which are based on a specific building type in contrast to student thesis projects based on social or theoretical design issues. In addition, comprehensive design is elegantly demonstrated in an experimental studio Arch 269bc which provides a collaborative design-build opportunity for construction of projects as diverse a heated outdoor theatre for the college courtyard and an emergency shelter prototype for natural disasters.
4.6 ANNUAL REPORTS

2003-2004 NAAB Statistical Report
Completed by: C. McCarthy

PUBLIC

STUDENT DATA

| Full-Time Students | Part-Time Students | FTE Students | Arch Design Studio Students | Students working part-time | Outside Students Served by Dept. | African-American Students | Native American Students | Asian/Pacific Islander Students | Hispanic Origin Students | Women Students | Foreign Students | Total Degrees Awarded | Grad. Fin. Estab. No. Yrs. | Degrees Awarded Women | Degrees Awarded Afri-Amer | Degrees Awarded Amer. Inc. | Degrees Awarded Asian/Pacific Isl. | Degrees Awarded Hispanics | Min Req. SAT/ACT/GRE Score | Number of Applicants | Number Accepted | Enrollment Target/Goal | Student Studio/Faculty Ratio |
|-------------------|-------------------|-------------|-----------------------------|---------------------------|-------------------------------|---------------------------|-------------------------|--------------------------|-------------------------|------------------|------------------|--------------------------|--------------------------|-----------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| 568               | 0                 | 9           | 187                        | 9                         | 1                              | 1                        | 10                     | 9                        | 3                       | 2                | 3                | 3                        | 3                        | 1                           | 10                     | 7                      | 14                      | 3                        | 3                        | 1                           | 1                        | 3120                    | 77                        | 12                        | 12 to 1                   | 12 to 1                   |

*include Eskimos and Aleuts  
**Includes four-year program component of 4+1 yrs. Barch degree and 4-2 yrs. M Arch degree  
***Non-Professional baccalaureate degree that is not part of an accredited professional program

FACILITY/RESOURCE DATA

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**Private outside $: Gifts, Endowments, Total

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*figures for 02-03; 03-04 figures not yet available*
SCHOOL: University of California, Berkeley
Completed by: C. McCarthy

**FULL-TIME FACULTY SALARIES**

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*29 lecturers, appointments vary from 15% to 100%. Pay rates shown are yearly at 100%

**FACULTY DATA**

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*Include Eskimos and Aleuts

May-04
October 31, 2005

DeLon Howell
Accreditation Manager
National Architectural Accrediting Board, Inc.
1735 New York Avenue, NW
Washington, DC 20006

Dear Mr. Howell,

Attached please find our department’s Annual Report. Our 2005 Annual Report includes:

- Our two-page statistical report
- Response to Identified Conditions
- Brief Summary of Changes

I apologize for the delay in delivery of this report. If you need any further information, please do not hesitate to contact me at the above number.

Respectfully,

[Signature]

W. Mike Martin, PhD, FAIA
Chair, Architecture
### 4. Supplemental

#### STUDENT DATA

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*Include Eskimos and Aleuts
**Includes four-year program complet of 4-1 yrs. B Arch degree and 4-2 yrs. M Arch degree
***Non-Professional bachelor's degree is not part of an accredited professional program

#### FACILITY/RESOURCE DATA

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<tr>
<th>Facility/Resource</th>
<th>Data</th>
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<td>Departmental Library LCNA or 720-729 Collection</td>
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<tr>
<td>Total Architecture Collection in Dept. Library</td>
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<td>Library Library LCNA or 720-729 Collection</td>
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<td>Departmental Library Architecture Slides</td>
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<td>University Library Architecture Slides</td>
<td>361,000,000</td>
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<tr>
<td>Departmental Library Architectural Videos</td>
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<td>Staff in Dept. Library</td>
<td>7.6 plus 1 full-time equivalent</td>
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<td>Number of Computer Stations</td>
<td>953</td>
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<td>Annual budget for Library Resources</td>
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<td>Per Capita Financial Support Received University</td>
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<td>Total Area (Gross Sq. Ft)</td>
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**Private Outside Grants:** Gifts 372,000, Endowments 473,000, Total 845,000
SCHOOL: University of California, Berkeley

Completed by Chris Williams

4. Supplemental

| Professor | 15.5 | 85,300 | 98,400 | 128,000 | 117,000 |
| Associate Professor | 9 | 85,700 | 71,111 | 78,500 | 74,600 |
| Assistant Professor | 4 | 56,000 | 62,100 | 68,900 | 67,300 |
| Instructor | 28 | 37,572 | 41,720 | 56,376 | N/A |

*28 lecturers, appointments vary from 10% to 100%. Pay rates shown are yearly at 100%.

### FACULTY DATA

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<th>Department</th>
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<td>Full-Time Faculty</td>
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<th>African-American Faculty</th>
<th>Native American Faculty</th>
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<table>
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<th>Hispanic-Origin Faculty</th>
<th>Women Faculty</th>
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</tbody>
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*Include Eskimos and Aleuts
Conditions not met:

12.14 Accessibility- Ability to design both site and building to accommodate individuals with varying physical abilities.

“The visiting team was not able to find consistent evidence to demonstrate each student has the ability or understanding to accommodate individuals with varying physical abilities.”

Please see response below.

12.19 Life-Safety Systems- Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their sub-systems.

“The visiting team was not able to find consistent evidence to demonstrate each student has the understanding of the basic principles that inform the design and selection of life-safety systems.”

Please see response below.

12.21 Building Service Systems- Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems.

“The visiting team was not able to find evidence that all students are provided an opportunity to obtain an understanding of the principles of vertical transportation, plumbing, communication, security and fire protection systems.”

Please see response below.

12.22 Building Systems Integration- Ability to assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design.

“While course work was able to demonstrate students’ understanding and ability regarding structural, environmental and exemplary building envelope systems, the visiting team was not able to find consistent evidence of the students’ ability to integrate building service systems into building design.”

Please see response below.

12.24 Building Code Compliance- Understanding of the codes, regulations, and standards applicable to a given site and building design, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, means of egress, fire protection, and structure.

“The visiting team was not able to find consistent evidence of student understanding of building code compliance.”

Please see response below.

12.29 Comprehensive Design- Ability to produce an architecture project informed by a comprehensive program, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to the program’s design criteria.
The nature of the Berkeley architecture program provides faculty and students rich opportunities to investigate and explore rich and individual interests in research, theory and design. Flexibility to pursue individual interests is reinforced by a combination of vertical studios and the opportunity to investigate a theoretical thesis topic. The visiting team was not able to find consistent evidence that all students have the ability to produce a comprehensive architecture design project.”

Please see response below.

While courses in which the content of the six requirements are available, Berkeley has a relatively open course of study that is managed by each student in consultation with a faculty advisor. In the student performance conditions that were not met, the visiting team commented on their not being able to find consistent evidence that all students were mastering the ability or gaining the understanding of the particular criteria. In response to the VTR, our program has instituted two changes: first, we now individually monitor each student’s progress in possessing the required skills and knowledge as established by the NAAB. In each file, every M.Arch student has a checklist (see attached checklist) in which they indicate which course they have taken to fulfill the requirement. The second change, we now have a “comprehensive design studio” offered every semester and required by every student. This course takes three models: First, a studio taught by one or more of our regular faculty. The second model invites a major architectural firm (this fall it is being taught by David MacIver of Esherick Holmsey Dodge and Davis) based on a project in their office that is in design development stage. The guest instructor and a set of the office’s consultants work with the students achieve a comprehensive design including systems, materials, construction, schedule, and costs. The third model, to be implemented in fall 2006, is to place students in major Bay Area firms to connect to a project in the office that will accomplish the goal of a comprehensive studio. This effort will be coordinated by one of our regular faculty. Not only will these instructional strategies address the comprehensive design requirement, but also they should help to reinforce the other criteria that were not met.
Causes of Concern:

"There is without a doubt a great richness in the opportunities that students have to build their own curriculum based on a wide range of course offerings and research topics offered by the faculty, however the opportunity would benefit from more structure to assure compliance with the NAAB Performance Criteria."

We now individually monitor each student’s progress in achieving the required skills and knowledge as established by the NAAB. In each file, every M.Arch student has a checklist in which they will state which course they have taken to fulfill the requirement that will be matched against the course syllabus. Further description of this change follows in “Changes to the Program.”

"The College of Environmental Design and the Campus Facilities Department continue to miss the chance to benefit from a closer relationship during a very active campus redevelopment program.”

Two initiatives have been implemented since the VTR visit. First, the Campus Design Review Committee has provided an opportunity for one M.Arch student to serve as member of the committee to not only participate in the discourse about future projects on the campus, but also to serve as a conduit to the College and Department student population. Second is an increase, primarily because of the interest of specific faculty members --Dana Buntrock and Mark Anderson -- to use the new campus facilities as laboratories in our construction and design build oriented courses. We will continue efforts to establish further connections.

"While students are exposed to the different disciplines within the college through course offerings and research of the faculty, the team did not see evidence that program was taking advantage of a formal relationship between itself and the other two departments in the college."

There are two new University initiatives that are based in the College of Environmental Design: Metropolitan Studies and New Media: The New Media program will offer its first courses in Fall 2005. Professor Yehuda Kalay in Architecture directs this program and it is drawing on courses not only from within the college, but across the university. The Metropolitan Studies program, directed by Professor John Landis in City and Regional Planning will make its first offerings in Spring 2006 and again will draw from the College as well as across the campus.

Dean Harrison Fraker taught a joint studio that focused on Beijing. The studio included faculty and students from all three departments. This is now a model to be continued in future academic years.

"There does not seem to be in place the necessary Information Technology support in the studio or to support the newly acquired digital equipment for the shop or to support the future strategic vision of the program.”

Significant progress has been made in this area. A wireless network has been put in place throughout the building with all studio workstations now having network capacity. New high-end equipment, cpus’s and input/output devices have been located on all five studio floors for both graduate and undergraduate students. We have established a permanent location for the CNC Lab on the fourth floor that consolidates our laser cutter, 3d printer and router services for all students. All seminar and lecture space now have electronic based projection. A strategic plan is underway to develop a capital campaign to bring electronically controlled shop equipment.

“Based on evidence presented in the Team Room there is an inconsistency in meeting the NAAB requirement for the comprehensive design.”

We now have a “comprehensive design studio” offered every semester and required by every student.
Changes to Program:

Course Requirements:
With the visiting team, we reviewed a new proposal for a required course structure. This course requirement structure was put in place in 2004-2005 for all entering students.

Four broad program areas are now defined in our program: “Architectural Design,” “Architectural Methods and Practices,” “Architectural Sciences,” and “Architectural Humanities.” There are sub-areas within each program area, and this is where changes were made. Within Design, the sub-areas are unchanged: “Introduction” and “Advanced”; within Methods & Practices, the sub-areas have changed from “Methods of Design Practice” and “Construction and Materials” to “Professional Practice” and “Theories and Methods”; within Sciences, the sub-areas are “Building Sciences,” “Building Structures,” and “Construction and Materials.” The last area is also unchanged, within Humanities, the sub-areas are “Social and Cultural Processess” and the “History of Architecture and Urbanism.”

Students are now required to take one more sub-area course of 3 units, with the area of professional practice more clearly defined.

NAAB Student Performance Criteria
In response to the VTR, we began testing an individual evaluation of student performance criteria and in the 2005-2006 academic year will put the evaluation into place. This evaluation is described earlier in this report and the form is attached at the end of this report.

Comprehensive Design Studio
In the Fall of 2004, we began offering a comprehensive design studio and will continue to offer one or two of these studios every semester. A variety of models are being explored including a studio led by a faculty member joined by outside consultants and a studio led by a local practitioner and coordinated by a faculty member.

Faculty Search
In Spring of 2005, we initiated search for Assistant Professor of Design with an emphasis on urban context. Candidates will be invited in the Fall and we expect an appointment to be made for Spring of 2006 or Fall of 2006.

Two searches have been authorized for the 2005/2006 academic year -- one in design and building performance and one in design and environmental systems.

Other Faculty news:
Beginning in the Spring of 2004, the Berkeley Mayeck Fellows program was established to bring emergent scholars and professionals to the department. Beginning in the Fall of 2005, we have two new fellows: William O'Brien and Georgina Huljich.

Also, in the Spring of 2004, the Esberick Chair was established to bring an emerging practitioner to teach for a semester whose work integrates design and technology. This Chair was established by the Esberick family in honor of Joe Esberick, former chair and AIA Gold Medalist architect. This Fall’s Esberick Professor is Tom Wiscombe.

And, every year, we continue to invite renowned practitioners as Friedman Professor in Practice. In the Fall of 2004, our Friedman Professors were: Wes Jones, Fred Dust and Tom Wiscombe. In the Spring of 2005, they were: Marcel Spina and Peter Zelinger, Susan Kohatan and Bill McDonald, Eric Bange and Mimi Hood, and Hadrian Predock and John Frane.

Human Resources:
During the Spring and summer of 2005, there has been a major support staff reorganization. The Department has a new MSO, Chair’s Analyst, and an undergraduate student service center. The
computer staff is refocusing its direction to support to a studio based teaching program, moving away from computer lab facilities.

Physical Resources:
During the summer of 2005, the courtyard was completed as a major community space for the College. The furniture and equipment refurbishment on four of the five studio floors is now complete with the last floor scheduled for the summer of 2006.

Department Chair:
As is normal for the Department the Chair rotates every three years. Professor W. Mike Martin’s three year term ends in December 2005. The departmental faculty are in the process of selecting the next chair. They will first assess the availability of a member from the current faculty. If that does not result in a satisfactory candidate then an external search will be made to select the next chair. It is expected that either an internal chair will be appointed in January 2006 or a search will be implemented for an external chair by the end of Fall 2005.
### NAAB Performance Criteria

**Name:**

**Date:**

**Opt.**

**Semester/Year Began Program:**

<table>
<thead>
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<th>Courses that fulfill req.</th>
<th>Instructor</th>
<th>Semester/Year</th>
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<td>2. Graphic Skills</td>
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<td>3. Research Skills</td>
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<td>4. Critical Thinking Skills</td>
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<td>5. Fundamental Design Skills</td>
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<td>6. Collaborative Skills</td>
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<td>7. Human Behavior</td>
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<td>8. Human Diversity</td>
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<td>15. Site conditions</td>
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<td>32. Practice Organization Management</td>
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<td>36. The Context of Architecture</td>
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<td>37. Ethics and Professional Judgment</td>
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2006 Annual Report to the NAAB
September 30, 2006
University of California Berkeley

Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
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<tbody>
<tr>
<td>Two Page Statistical Report</td>
<td>2</td>
</tr>
<tr>
<td>Response to conditions not met causes of concern</td>
<td>4</td>
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<td>Response to causes of concern</td>
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<tr>
<td>Summary of changes to program</td>
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<td>Sample of Student Checklist</td>
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Letter of Action dated February 25, 2004
YTR dated October 8, 2003
Team Visit dated October 4-8, 2003
### 2006 NAAB STATISTICAL REPORT

**SCHOOL:** University of California, Berkeley  
**Compass by:** Chris Wiesent, Architecture Management Services Officer  
**ACBA REGION:** EC NE SE SW WC (circle one)  
**PUBLIC or PRIVATE** (circle one)  

#### STUDENT DATA

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<tr>
<td>Student/Teacher Ratio</td>
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<td>20/4</td>
<td>20/4</td>
<td>20/4</td>
<td>20/4</td>
<td>20/4</td>
</tr>
</tbody>
</table>

*Includes Asian and Pacific Islanders  
**Includes four-year program component of 4+1 yrs. B-Arch degree and 4+2 yrs. M. Arch degree.  
***Non-Professional: baccalaureate degree that is not part of an accredited professional program.

#### FACILITY/RESOURCE DATA

- **Departmental Library LONA or 720-729 Collection:** 96,250  
- **Total Architecture Collection in Departmental Library:** 205,000  
- **University Library LONA or 720-729 Collection:** 5,111  
- **Total Architecture Collection in University Library:** 100,000 (calculated since 2006)  
- **Departmental Library Architecture Slides:** 275,000 (Architectural Visual Resources Collection (AVRC) also available)  
- **University Library Architecture Slides:** over 75,000 digital images and 20,000 photos  
- **Departmental Library Architecture Videos:** 246  
- **Staff in Dept. Library:** 7.7 + 5.68 FTE student staff  
- **Number of Computer Stations:** 32  
- **Amount Spent on Information Technology:** $214,000  
- **Annual Budget for Library Resources:** $210,000  
- **Per-Capita Financial Support Received from University:** $7,545  
- **Private Outside Monies Received by Source:** $844,000**  
- **Studio Area (Net Sq. Ft.):** 37,673  
- **Total Area (Gross Sq. Ft.):** 94,272

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University of California Berkeley  
2006 Annual Report  
2
## 2006 NAAB Statistical Report

### Full-Time Faculty Salaries

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
<th>Minimum</th>
<th>Average</th>
<th>Maximum</th>
<th>Univ. Avg.</th>
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<tr>
<td>Professor</td>
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<td>$74,200</td>
<td>$100,487</td>
<td>$120,000</td>
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*12.25 FTE lecturers and invited faculty, appointments vary from 13% to 100%. Pay rates shown are 100% FTE.

### Faculty Data

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<td>PT Faculty who are U.S. Licensed Registered Architects (among permanent faculty)</td>
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*Univ Avg Salaries (total compensation) from Faculty Compensation Task Force Report Feb. 2004

### Faculty Breakdown by Race and Gender

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<td>5</td>
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</tr>
</tbody>
</table>

*Include Ekloros and Astus
Conditions not met:

12.14 Accessibility- Ability to design both site and building to accommodate individuals with varying physical abilities.

"The visiting team was not able to find consistent evidence to demonstrate each student has the ability or understanding to accommodate individuals with varying physical abilities."

Please see response below and course descriptions of Arch 120 and comprehensive studio.

12.19 Life-Safety Systems- Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their sub-systems.

"The visiting team was not able to find consistent evidence to demonstrate each student has the understanding of the basic principles that inform the design and selection of life-safety systems."

Please see response below and course descriptions of Arch 160, 253, 269 and comprehensive studio.

12.21 Building Service Systems- Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems.

"The visiting team was not able to find evidence that all students are provided an opportunity to obtain an understanding of the principles of vertical transportation, plumbing, communication, security and fire protection systems."

Please see response below and course descriptions for Arch 140, 249, 269 and comprehensive studio.

12.22 Building Systems Integration- Ability to assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design.

"While coursework was able to demonstrate students’ understanding and ability regarding structural, environmental and exemplary building envelope systems, the visiting team was not able to find consistent evidence of the students’ ability to integrate building service systems into building design."

Please see response below and course descriptions for Arch 140, 249, 269 and comprehensive studio.

12.24 Building Code Compliance- Understanding of the codes, regulations, and standards applicable to a given site and building design, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, means of egress, fire protection, and structure.

"The visiting team was not able to find consistent evidence of student understanding of building code compliance."

Please see response below and course descriptions for Arch 120, 253, 269, and comprehensive studio.

12.29 Comprehensive Design- Ability to produce an architecture project informed by a comprehensive program, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building...
assemblies, as may be appropriate; and to assess the completed project with respect to the program’s design criteria.

“The nature of the Berkeley architecture program provides faculty and students rich opportunities to investigate and explore rich and individual interests in research, theory and design. Flexibility to pursue individual interests is reinforced by a combination of vertical studies and the opportunity to investigate a theoretical thesis topic. The visiting team was not able to find consistent evidence that all students have the ability to produce a comprehensive architecture design project.”

Please see response below and detailed descriptions of the required comprehensive studio, offered each semester.

In our 2005 Report, Chair W. Mike Martin responded to the concern that the above listed student performance conditions were not met by describing two significant changes instituted in our program:

• First, we now individually monitor each student’s progress in possessing the required skills and knowledge as established by the NAAB. In each file, every M.Arch student has a checklist (see attached checklist) in which they indicate which course they have taken to fulfill the requirement.

• Second, we now have a “comprehensive design studio” offered every semester and required by every student. This course is taught by one or more of our regular faculty or by a visiting faculty from a major architectural firm. In each case the instructor involves a set of engineering consultants to work with the students to achieve a comprehensive design including systems, materials, construction, schedule, and costs.

We believe that the monitoring of student course choices in relation to NAAB criteria has been very effective. In 2003, the visiting team commented on their not being able to find consistent evidence that all students were mastering the ability or gaining the understanding of the particular criteria. Attached in Appendix 1 are examples of the student evaluation and check sheet from one class of students, demonstrating how each student has met the NAAB criteria.

If you review this document, you will note that several specific courses stand out as courses regularly taken by graduate students: Our introductory courses, Arch 120 professional practice covers accessibility. Arch 140 Energy and Environmental Management covers building services and building system integration. Arch 160 Construction covers codes and life safety systems. These courses are open to graduate students and many students in the Option 3 program take these introductory courses where there is a special section for graduate students.

In addition, a number of specific graduate classes address the topics outlined above. Arch 229a, Special Topics in the Practice of Design, taught by Richard Parnau addresses many of technical design issues of system integration in professional practice. Arch 253, Seismic Design and Construction, taught by Mary Comerio, dedicates several weeks to building code and life-safety systems issues. Arch 249e, Secret Life of Buildings, taught by Kris Donovan, covers service systems and system integration. Arch 290a, Graduate Seminar in Construction, taught by Dana Bantrock and Mary Comerio in Spring 06, and by Lisa Iwamoto and Mark Anderson in Spring 07, covers access, life-safety, building systems, systems integration, and codes. Appendix 2 contains a number of sample course descriptions.

Please note that the majority of students list this group of classes when they are asked to identify which courses fulfill the NAAB requirements in accessibility, life safety systems, building service systems, building system integration, and codes. In addition, students list the required comprehensive studio, offered each semester as evidence of fulfilling these requirements.

In Spring 2005, the comprehensive studio was taught by Bill DiNapoli, a practitioner and continuing lecturer in the department. In Fall 2005, the studio was taught by David Maglaya of Esherick Holmsey Dodge and Davis based on a project in their office that is in design development stage. In Spring 2006, Prof. Mark Anderson taught the studio and this term (Fall 06) it is being taught by Prof. Susan Ullenhede. Copies of the course materials are attached in Appendix 3 and samples of student work are in Appendix 4.
Causes of Concern:

There is without a doubt a great richness in the opportunities that students have to build their own curriculum based on a wide range of course offerings and research topics offered by the faculty, however the opportunity would benefit from more structure to assure compliance with the NAAB Performance Criteria.”

We now individually monitor each student’s progress in achieving the required skills and knowledge as established by the NAAB. In each file, every M.Arch student has a checklist in which they will state which courses they have taken to fulfill the requirement that will be matched against the course syllabus. See Appendix I.

“The College of Environmental Design and the Campus Facilities Department continue to miss the chance to benefit from a closer relationship during a very active campus redevelopment program.”

Two initiatives have been implemented since the VT visit. First, the Campus Design Review Committee has provided an opportunity for one M.Arch student to serve as member of the committee and to not only participate in the discourse about future projects on the campus, but also to serve as a conduit to the College and Department student population. Second is an increase, primarily because of the interest of specific faculty members –Dana Bantock, Mary Comerio, and Mark Anderson – to use the new campus facilities as laboratories in our construction and design build oriented courses. We will continue efforts to establish further connections. Enclosed with Appendix 4 is a copy of “Bracing Berkeley: A Guide to Seismic Safety on the UC Campus.” This publication is a product of courses taught by Professors Comerio and Tohrin and to use the campus retrofit program as a study lab.

“While students are exposed to the different disciplines within the college through course offerings and research of the faculty, the team did not see evidence that program was taking advantage of a formal relationship between itself and the other two departments in the college.”

There are two new University initiatives that are based in the College of Environmental Design: Metropolitan Studies and New Media: The New Media program will offer its first courses in Fall 2005. Professor Yehuda Kalai in Architecture directs this program and it is drawing on courses not only from within the college, but across the university. The Metropolitan Studies program, directed by Professor John Landis in City and Regional Planning will make its first offerings in Spring 2006 and again will draw from the College as well as across the campus.

Dean Harrison Fraker taught a joint studio that focused on Beijing. The studio included faculty and students from all three departments. This is now a model to be continued in future academic years.

“There does not seem to be in place the necessary Information Technology support in the studio or to support the newly acquired digital equipment for the shop or to support the future strategic vision of the program.”

Significant progress has been made in this area. A wireless network has been put in place throughout the building with all studio workstations now having network capacity. New high-end equipment, CPUs and input/output devices have been located on all five studio floors for both graduate and undergraduate students. We have established a permanent location for the CNC Lab on the fourth floor that consolidates our laser cutter, 3D printer and router services for all students. All seminar and lecture space now have electronic based projection. A strategic plan is underway to develop a capital campaign to bring electronically controlled shop equipment.

“Based on evidence presented in the Team Room there is an inconsistency in meeting the NAAB requirement for the comprehensive design.”

We now have a “comprehensive design studio” offered every semester and required by every student.
Changes to Program:

Course Requirements:
With the visiting team, we reviewed a new proposal for a required course structure. This course requirement structure was put in place in 2004-2005 for all entering students.

Four broad program areas are now defined in our program: "Architectural Design," "Architectural Methods and Practices," "Architectural Sciences," and "Architectural Humanities." There are sub-areas within each program area, and this is where changes were made. Within Design, the sub-areas are unchanged: "Introduction" and "Advanced"; within Methods & Practices, the sub-areas have changed from "Methods of Design Practice" and "Construction and Materials" to "Professional Practice" and "Theories and Methods"; within Sciences, the sub-areas are "Building Sciences," "Building Structures," and "Construction and Materials." The last area is also unchanged, within Humanities, the sub-areas are "Social and Cultural Processes" and the "History of Architecture and Urbanism."

Students are now required to take one more sub-area course of 3 units, with the area of professional practice more clearly defined.

NAAB Student Performance Criteria
In response to the VTR, we began testing an individual evaluation of student performance criteria and in the 2005-2006 academic year will put the evaluation into place. This evaluation is described earlier in this report and the form is attached at the end of this report.

Comprehensive Design Studio
In the Fall of 2004, we began offering a comprehensive design studio and we continue to offer one of these studios every semester. Two models have been used: a studio led by a faculty member joined by outside consultants and a studio led by a local practitioner and coordinated by a faculty member. Course descriptions and examples of student work are attached.

Faculty Search
In Spring of 2005, we initiated search for Assistant Professor of Design with an emphasis on urban context. Assistant Professor Nicholas DeMonchaux was hired and began teaching in Fall 2006. Another search began in Spring 2006 for an Assistant Professor in design and building performance. A short list of candidates has been invited for interviews in Fall 2006. Also in Fall 2006, we are beginning a third search, with the title Design and Process/Practice. This search has been authorized at the Tenure or Non-Tenure level.

Other Faculty news:
In the Spring of 2004, the Berkeley Maybeck Fellows program was established to bring emergent scholars and professionals to the department. In 2005-06, we had two fellows: William O'Driscoll and Georgina Halpich. In 2006-07, we have one fellow: Jeannette Mei Kuo.

In the Spring of 2004, the Estherick Chair was established to bring an emerging practitioner to teach for a semester who's work integrates design and technology. This Chair was established by the Estherick family in honor of Joe Estherick, former chair and AIA Gold Medalist architect. The Fall 2005 Estherick Professor was Tom Wiscomb. The Fall 2006 Estherick Professor is David Erdman.

And, every year, we continue to invite renown practitioners as Friedman Professor in Practice. In the Fall of 2005, our Friedman Professors were: Robert Swaït, Stephen Shortridge, and Michael Malzman. In the Spring of 2006, we had distinguished visitors from Japan. They were: Hitoshi Abe, Mark Dytham and Astrid Klein, Takaharu and Yui Tsuchiya. This Fall 2006, we have a group of Latin American Architects: Angelo Bucci, Rafael Iglesias, and Solano Benitez.

All these visiting professionals have enriched our studio offerings at the graduate level.
Human Resources:
During the Spring and summer of 2005, there was a major support staff reorganization. The Department has a new MSO, Chair’s Analyst, and an undergraduate student service center. The computer staff is refocusing its direction to support a studio based teaching program, moving away from computer lab facilities. An Academic Coordinator has been hired to assist the Chair in managing changes in the curriculum.

Physical Resources:
During the summer of 2005, the courtyard was completed as a major community space for the College. The furniture and equipment on four of the five studio floors is now complete with the last floor scheduled for the summer of 2007.

Department Chair:
As in normal for the Department the Chair rotates every three years. Professor W. Mike Martin completed his term in June 2006, one semester longer than the normal three year term. The department faculty selected Mary Comerio as the next chair, and she took over in July 2006. The start of Prof. Comerio’s term was delayed to allow her to complete major research commitments in the Spring of 2006 and to bring the Chair transition back into conformity with university norms.
June 20, 2007

Ms. Cassandra Pair
Accreditation Manager
National Architectural Accrediting Board
1735 New York Ave. NW
Washington DC 20006

Dear Ms. Pair:

I appreciate your taking the time to talk to me in May about my department’s focused evaluation scheduled for September 30 to October 2, 2007, as well as the necessary material that should be included in our annual report. In my 2006 report, I included extensive samples of course checklists required of each graduate student, course descriptions of key classes that meet areas that were determined to be deficient, course descriptions of our required comprehensive studio, and samples of student work. In my conversations with Wayne Drummond, he pointed out that I did not need to re-send that material, as the Review Team would have access to the copies of that material which I sent in September 2006 and again in January 2007.

Attached is our 2007 Annual Report, which includes:
- Our two-page statistical report
- Updated responses to Identified Conditions
- Brief Summary of Changes
- Attached is a copy of the NAAB response to our 2005 report (the last response we received)

If you need further information, please do not hesitate to contact me.

Sincerely,

Mary Comerio
Professor and Chair
2007 Annual Report to the NAAB
June 19, 2007
University of California Berkeley

Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
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<tbody>
<tr>
<td>Two Page Statistical Report</td>
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<tr>
<td>Response to conditions not met causes of concern</td>
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<td>Response to causes of concern</td>
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<td>Summary of changes to program</td>
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*Include Estimates and Averages

**Includes four-year program component of 4+1 yrs. B.Arch degree and 4+2 yrs. M. Arch degree.

*Non-Professional: bachelor's degree that is not part of an accredited professional program.

### FACILITY/RESOURCE DATA

- **Departmental Library LCNA or 720-729 Collection**: 98,472 vols.
- **Total Architecture Collection in Departmental Library**: 208,730 vols.
- **University Library LCNA or 720-729 Collection**: 10,479 vols.
- **Total Architecture Collection in University Library**: 100,480 vols. (PLUS 75,000 digital images and 20,535 photos)
- **Departmental Library Architecture Slides**: 275,500.
- **University Library Architecture Slides**: 275,500.
- **Departmental Library Architecture Videos**: 256.
- **Staff in Dept. Library**: 2.3 Librarians + 3 paraprof. + 3 student assts
- **Number of Computer Stations**: 17 in library + 32 addl. avail to students
- **Amount Spent on Information Technology**: $314,000.
- **Annual Budget for Library Resources**: $211,000.
- **Per-Capita Financial Support Received from University**: $7,650.
- **Private Outside Movies Received by Source**: 3,044,656.
- **Studio Area (Net Sq. Ft.)**: 37,373.
- **Total Area (Gross Sq. Ft.)**: 44,072.

---

**University of California Berkeley**

2007 Annual Report
**2007 NAAB STATISTICAL REPORT**

**SCHOOL:** UC Berkeley  
**Completed By:** Mary Colore, Chair

**FULL-TIME FACULTY SALARIES**

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<th>Position</th>
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**FACULTY DATA**

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<th>Full-Time Faculty</th>
<th>Part-Time Faculty</th>
<th>Full-time Equivalent (FTE) Faculty</th>
<th>Tenured Faculty</th>
<th>Tenure-Track Positions</th>
<th>FTE Administrative Positions</th>
<th>Faculty Engaged in Service to Comm.</th>
<th>Faculty Engaged in Service to Univ.</th>
<th>FT Faculty who are U.S. Licensed Registered Architects</th>
<th>PT Faculty who are U.S. Licensed Registered Architects</th>
<th>Practicing Architects</th>
<th>FTE Graduate TAs</th>
<th>PT Faculty Avg. Contact Hrs/Wk</th>
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<tr>
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</table>

*Include Eskimos and Aleuts

University of California Berkeley  
2007 Annual Report  
3
Conditions not met: NOTE: UC Berkeley received a response to our 2005 Annual Report, but we did not receive a response to our detailed 2006 report. The response below reference the materials already submitted in 2006. We have not duplicated these materials here.

12.14 Accessibility- Ability to design both site and building to accommodate individuals with varying physical abilities.

“The visiting team was not able to find consistent evidence to demonstrate each student has the ability or understanding to accommodate individuals with varying physical abilities.”

Please see response below, and course descriptions of Arch 120 and comprehensive studio. In 2006-06, comprehensive studio instructors made extensive use of Visiting Scholars and Professional Consultants to supplement lectures in the Comprehensive Studio. For example, Visiting Scholar David Pollock, Lecturer at Helsinki Polytechnic, licensed architect, and access expert gave a series of presentations on accessibility law, ADA, and related design issues.

12.19 Life-Safety Systems- Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their sub-systems.

“The visiting team was not able to find consistent evidence to demonstrate each student has the understanding of the basic principles that inform the design and selection of life-safety systems.”

Please see response below and course descriptions of Arch 160, 253, 269 and comprehensive studio.

12.21 Building Service Systems- Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems.

“The visiting team was not able to find evidence that all students are provided an opportunity to obtain an understanding of the principles of vertical transportation, plumbing, communication, security and fire protection systems.”

Please see response below and course descriptions for Arch 140, 249, 269 and comprehensive studio.

12.22 Building Systems Integration- Ability to assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design.

“White course work was able to demonstrate students’ understanding and ability regarding structural, environmental and exemplary building envelope systems, the visiting team was not able to find consistent evidence of the students’ ability to integrate building service systems into building design.”

Please see response below and course descriptions for Arch 140, 249, 269 and comprehensive studio.

12.24 Building Code Compliance- Understanding of the codes, regulations, and standards applicable to a given site and building design, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, means of egress, fire protection, and structure.

“The visiting team was not able to find consistent evidence of student understanding of building code compliance.”
Please see response below and course descriptions for Arch 120, 253, 269, and comprehensive studio.

12.29 Comprehensive Design- Ability to produce an architecture project informed by a comprehensive program, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to the program’s design criteria.

CRITERIA MET based on 2005 report. We are now offering two Comprehensive Studios per semester, taught by senior faculty with consulting engineers, and by Friedman Visiting Professors who are senior practitioners. In addition, in Fall 2007, we will introduce a seminar taught in parallel to the comprehensive studio to coordinate technical and code information from consultants and to allow students to focus on the materials.

In our 2005 Report, Chair W. Mike Martin responded to the concern that the above listed student performance conditions were not met by describing two significant changes instituted in our program:

- First, we now individually monitor each student’s progress in possessing the required skills and knowledge as established by the NAAB. In each file, every M.Arch student has a checklist (see attached checklist) in which they indicate which course they have taken to fulfill the requirement.
- Second, we now have a “comprehensive design studio” offered every semester and required by every student. This course is taught by one or more of our regular faculty or by a visiting faculty from a major architectural firm. In each case the instructor involves a set of engineering consultants to work with the students to achieve a comprehensive design including systems, materials, construction, schedule, and costs.

We believe that the monitoring of student course choices in relation to NAAB criteria has been very effective. In 2003, the visiting team commented on their not being able to find consistent evidence that all students were mastering the ability or gaining the understanding of the particular criteria. In our 2006 report we included examples of the student evaluation and check-sheet from one class of students, demonstrating how each student has met the NAAB criteria.

If you review those documents, you will note that several specific courses stand out as courses regularly taken by graduate students: Our introductory course, Arch 120 professional practice covers accessibility, Arch 140 Energy and Environmental Management covers building services and building system integration, Arch 160 Construction covers codes and life safety systems. These courses are open to graduate students and many students in the Option 3 program take these introductory courses where there is a special section for graduate students.

In addition, a number of specific graduate classes address the topics outlined above. Arch 229x, Special Topics in the Practice of Design, taught by Richard Fernau addresses many of technical design issues of system integration in professional practice. Arch 253, Seismic Design and Construction, taught by Mary Comerio, dedicates several weeks to building code and life-safety systems issues. Arch 249x, Secret Life of Buildings, taught by Chris Benton, covers service systems and system integration. Arch 269x, Graduate Seminar in Construction, taught by Dana Buntrock and Mary Comerio in Spring 06, and by Lisa Iwanow and Mark Anderson in Spring 07, covers access, life-safety, building systems, systems integration, and codes. Appendix 2 contains a number of sample course descriptions. In the fall of 2007, we plan to add a new graduate seminar that will be taught in parallel to the comprehensive studio and will cover a range of technical building construction and code requirements.

Please note that the majority of students list this group of classes when they are asked to identify which courses fulfill the NAAB requirements in accessibility, life safety systems, building service systems, building system integration, and codes. In addition, students list the required comprehensive studio, offered each semester as evidence of fulfilling these requirements. Our 2006 report included samples of course materials in Appendix 3 and samples of student work in Appendix 4 of that report.
Causes of Concern:

"There is without a doubt a great richness in the opportunities that students have to build their own curriculum based on a wide range of course offerings and research topics offered by the faculty, however the opportunity would benefit from more structure to assure compliance with the NAAB Performance Criteria."

As we reported in 2006, we now individually monitor each student’s progress in achieving the required skills and knowledge as established by the NAAB. In each file, every M.Arch student has a checklist in which they will state which course they have taken to fulfill the requirement that will be matched against the course syllabus.

“The College of Environmental Design and the Campus Facilities Department continue to miss the chance to benefit from a closer relationship during a very active campus redevelopment program.”

As we reported in 2006, two initiatives have been implemented since the VTR visit. First, the Campus Design Review Committee has provided an opportunity for one M. Arch student to serve as member of the committee so not only participate in the discourse about future projects on the campus, but also to serve as a conduit to the College and Department student population. Second is an increase, primarily because of the interest of specific faculty members -- Dana Bantrock, Mary Connerio, and Mark Anderson -- to use the new campus facilities as laboratories in our construction and design build oriented courses. We continue efforts to establish further connections. In 2006, we enclosed a copy of "Bracing Berkeley: A Guide to Seismic Safety on the UC Campus." This publication was a product of courses taught by Professors Connerio and Toth, using the campus retrofit program as a study lab.

"While students are exposed to the different disciplines within the college through course offerings and research of the faculty, the team did not see evidence that program was taking advantage of a formal relationship between itself and the other two departments in the college.”

Two new University initiatives that are based in the College of Environmental Design: Metropolitan Studies and New Media. The New Media program offered its first courses in Fall 2005. Professor Yehuda Kalay in Architecture directs this program and it is drawing on courses not only from within the college, but across the university. The Metropolitan Studies program, directed by faculty in City and Regional Planning made its first offerings in Spring 2006 and again will draw from the College as well as across the campus.

In Spring 2007, Dean Harrison Fraker taught a studio that focused on residential planning in China, and Professors Nezar AlSayyad and Susan Ubbelohde taught a studio on the design of a new “Nano-City” in India. Both of these studies included input from faculty in a number of departments, and students from all three departments in the College. These courses were highly successful and provide a model to be continued in future academic years.

"There does not seem to be in place the necessary Information Technology support in the studio or to support the newly acquired digital equipment for the shop or to support the future strategic vision of the program."

As reported in 2006, significant progress has been made in this area. A wireless network has been put in place throughout the building with all studio workstations now having network capacity. New high-end equipment, CPUs and input/output devices have been located on all five studio floors for both graduate and undergraduate students. We have established a permanent location for the CNC Lab on the fourth floor that consolidates our laser cutter, 3d printer and router services for all students. All seminar and lecture space now have electronic based projection. In 2007, the department submitted an IT funding proposal to the central administration, and we are working with the Dean to develop a capital campaign to bring electronically controlled shop equipment.
Changes to Program:

Course Requirements:
With the visiting team, we reviewed a new proposal for a required course structure. This course requirement structure was put in place in 2004-2005 for all entering students.

Four broad program areas are now defined in our program: “Architectural Design,” “Architectural Methods and Practices,” “Architectural Sciences,” and “Architectural Humanities.” There are sub-areas within each program area, and this is where changes were made. Within Design, the sub-areas are unchanged: “Introduction” and “Advanced”; within Methods & Practices, the sub-areas have changed from “Methods of Design Practice” and “Construction and Materials” to “Professional Practice” and “Theories and Methods”; within Sciences, the sub-areas are “Building Sciences,” “Building Structures,” and “Construction and Materials.” The last area is also unchanged, the sub-areas are “Social and Cultural Processes” and the “History of Architecture and Urbanism.”

Students are now required to take one more sub-area course of 3 units, with the area of professional practice more clearly defined.

NAAB Student Performance Criteria
In response to the VTR, we began testing an individual evaluation of student performance criteria and in the 2005-2006 academic year we put the evaluation into place. This evaluation is described and documented in the 2006 report.

Comprehensive Design Studio
In the Fall of 2004, we began offering a comprehensive design studio and we now offer two of these studios every semester.

Faculty Search
In Spring of 2005, we initiated search for Assistant Professor of Design with an emphasis on urban context. Assistant Professor Nicholas de Monchaux was hired and began teaching in Fall 2006. Another search began in Spring 2006 for an Assistant Professor in design and building performance. Assistant Professor Maria Per Geritzch has been hired as of July 1, 2007. In Spring 2007, we began another search, with the title Design and Process/Practice. This search was authorized at the Tenure or Non-Tenure level, and we plan to interview for this position in October 2007.

We have just received authorization for two additional searches in 2007-08: one for an Architectural Historian (Tenured or Non-Tenured), and another for a Digital Design position at the non-tenured level.

Other Faculty news:
In the Spring of 2004, the Berkeley Maybeck Fellows program was established to bring emergent scholars and professionals to the department. In 2005-06, we had two fellows: William O’Brien and Georgina Huljich. In 2006-07, the fellow was Jeannette Mei Kuo. In 2007-08, the fellow will be Max Spinna.

In the Spring of 2004, the Esherick Chair was established to bring an emerging practitioner to teach for a semester who’s work integrates design and technology. This Chair was established by the Esherick family in honor of Joe Esherick, former chair and AIA Gold Medalist architect. The Fall 2005 Esherick Professor was Tom Wiscomb. The Fall 2006 Esherick Professor was David Erdman. In Fall 2007, the Esherick Professor will be Neil Denari.

And, every year, we continue to invite renown practitioners as Friedman Professor in Practice. In the Fall of 2005, our Friedman Professors were: Robert Swatt, Stephen Shortridge, and Michael Maizam. In the Spring of 2006, we had distinguished visitors from Japan. They were: Hitoishi Abe,
Mark Dytham and Astrid Klein, Takaharu and Yui Tezuka. In Fall 2006, we had a group of Latin American Architects: Angelo Bucci, Rafael Iglesias, and Solano Benitez. In 2007, we will have two teams of Friedman Professors: Zoe Pitisinger and Luke Onycterisk of OP Architects in San Francisco will teach a comprehensive studio, and Kong Kiang of Chong Partners will teach with Brett Terpilak of Renzo Piano Building Works in a sustainable design studio.

All these visiting professionals have enriched our studio offerings at the graduate level.

Human Resources:
During the Spring and summer of 2005, there was a major support staff reorganization. The Department has a new MSO, Chair’s Analyst, and an undergraduate student service center. The computer staff is refocusing its direction to support a studio based teaching program, moving away from computer lab facilities. In 2006, an Academic Coordinator was hired to assist the Chair in managing changes in the curriculum.

Physical Resources:
During the summer of 2005, the courtyard was completed as a major community space for the College. The furniture and equipment on four of the five studio floors is now complete with the last floor scheduled for the summer of 2007.

Department Chair:
As is normal for the Department, the Chair rotates every three years. Professor W. Mike Martin completed his term in June 2006. Mary Conero began her term in July 2006.

NAAB

Annual Report Submission
Questionnaire Detail (Edit)

Your last Review Time was 12/5/2008 3:41:36 PM.
You have reviewed 4 times.
You are modifying the Annual Report Submission for University of California, Berkeley. If this is not correct please contact NAAB immediately.


Introduction
Starting in the fall of 2008, the National Architectural Accrediting Board (NAAB) is launching a new online Annual Report Submission (ARS) system with a deadline of November 30, 2008.

Continuing accreditation/candidacy is subject to the submission of Annual Reports. They are then reviewed by the NAAB staff and a response is prepared and sent to the program. Under certain conditions, three-year terms of accreditation may be extended to six-year terms on the basis of the material provided in Annual Reports. Conversely, if an acceptable Annual Report is not submitted to the NAAB by the following January 15 the NAAB may consider advancing the schedule for the program’s next accreditation sequence.

Part I (Annual Statistical Report) captures statistical information on the institution in which an architecture program is located and the degree program. For the purposes of the report, the definitions are taken from the glossary of terms used by the Integrated Postsecondary Education Data System (IPEDS)1. Much of the information requested in Part I must be consistent to the Institutional Characteristics, Completion and 12-Month Enrollment Report submitted to IPEDS in the fall by the institution. Data submitted in this section is for the previous fiscal year. An appropriate representative of the institution’s administration should verify data prepared by architecture programs.

Part II (Narrative Report) is the report in which a program responds to the most recent Visiting Team Report (VTR). The narrative must address Section 1.4 Conditions Not Met and Section 1.5 Causes of Concern of the VTR. Part II also includes a description of changes to the program that may be of interest to subsequent visiting teams or to the NAAB. In addition, this part is linked to other questions in Part I for which a narrative may be required. If a program had zero “not meets” in the most recent VTR or was “cleared of future reporting” in subsequent annual reports, no report is required in Part II.

Submission
Annual Reports are submitted through the NAAB’s Annual Report Submission system during the month of November each year. Programs visited during the previous spring or scheduled to be visited the following spring are required to submit Part I (Annual Statistical Report) only (e.g., for fall 2008, programs visited in spring 2008 or scheduled for spring 2008 only submit their statistical reports — Part I).

NAAB Response
Annual Reports are reviewed by the NAAB staff and an NAAB response is sent to the program, generally in the early spring. The NAAB administrative response to the Annual Report will identify whether additional or continued reporting is required for any of the conditions or causes of concern identified in the most recent VTR. Programs are encouraged to include these administrative responses as supplemental material in subsequent APRs.

The NAAB uses Annual Reports to maintain current information about the programs it accredits and track

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selected information that is relevant to compliance with the NAAB Conditions. Prior to accreditation visits or focused evaluations, visiting teams receive a summary report of program annual statistics that cover the years since the school’s last accreditation visit and an aggregate summary of data received from all accredited programs for the same period.

The statistics collected in this survey will be made available to all participating accredited and candidate schools. In order to maintain confidentiality, information may only be reported in the aggregate.

The NAAB uses the information to support accreditation activities and to provide relevant reports to other collateral organizations like The American Institute of Architects or the National Council of Architectural Registration Boards.

1 IPEDS is the “core postsecondary data collection program for the National Center for Education Statistics. Data are collected from all primary providers of postsecondary education in the U.S. in areas including enrollments, program completions, graduation rates, faculty, staff, finances, institutional prices, and student financial aid.” For more information see http://nces.ed.gov/nces/Part I - Annual Statistical Report

Section A: Institutional Characteristics

This section captures aggregated information about the home institution for each architecture program. Wherever possible, this information should be the same as that reported by the institution to IPEDS in its most recent institutional characteristics. Completion and 12-month enrollment report

(for inclusion on the NAAB website)

Institution: University of California, Berkeley
Academic Department: Department of Architecture
Address 1: College of Environmental Design
Address 2: 232 Wurster Hall
City: Berkeley
State: CA
Zip: 94720-1800
Architecture Program: 510.642.4642
Fax No:

In order to modify your organization information please visit the ACES Guide site.

Public Doctoral/Research Universities - Extensive Western Association of Schools and Colleges (WASC)

5. Who has direct administrative responsibility for the architecture program?

Name: Mary Comerio
Title: Chair
Office Tel. No: 510.642.4642
Fax No: 510.643.5607

Printed for Chris Williams <chriswms@berkeley.edu>

12/5/2008

Email Address archchair@berkeley.edu

6. To whom should inquiries regarding this questionnaire be addressed?
   Name: Mary Cameno
   Title: Chair
   Office Tel. No: 510-642-4942
   Fax No: 510-643-5607
   Email Address: archchair@berkeley.edu

7. Who is the administrator responsible for verifying data (and
   completing IPEDS reports) at your institution?
   Name: Dennis Hengster
   Title: Assistant Vice Chancellor
   Office Tel. No: 510-642-6561
   Fax No: 510-643-8448
   Email Address: hengster@berkeley.edu

(Aggregated for the Institution, these information should be the same as that reported to IPEDS for the last
fiscal year)

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### SECTION B. NAAB-ACCREDITED ARCHITECTURE PROGRAMS

This section captures information about the specific NAAB-accredited degree programs offered by the institution, unless otherwise noted in the instructions.

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No

**If yes, a report is required in PART II – Narrative Report that outlines the plans and planning for the new program.**

No

2. Semesters or Trimester

The program(s) in this section are dependent on your selection in Section B, Question 1:

- M. Arch.: 146

The program(s) in this section are dependent on your selection in Section B, Question 1:

a. Indicate the total number of credit hours taken at your institution to earn each NAAB accredited degree offered by your institution:

- M. Arch. Pre-Professional: 48
- M. Arch. Non Pre-Professional: 75

b. By degree, how many of those credit hours are assigned to general education?

- M. Arch. Pre-Professional: 0
- M. Arch. Non Pre-Professional: 0

c. By degree, what is the average number of credits each full-time student completes per academic term?

- M. Arch. Pre-Professional: 15
- M. Arch. Non Pre-Professional: 15

No

### SECTION C. TUITION, FEES AND FINANCIAL SUPPORT FOR STUDENTS IN NAAB-ACCREDITED PROGRAMS

**B. Arch.**

If this section is not applicable, please enter all zero's (0).

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4. Supplemental


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a. Does the institution offer discounted or differential tuition for a NAAB-accredited degree program? If yes, please explain
   No
b. Is a summer session required for any portion of your accredited degree program(s)?
   No

If yes, what is the additional tuition and fees for the summer program?
   (If no fill this section with 0s)

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Does the institution offer discounted or differential tuition for summer courses for a NAAB-accredited degree program?
   If yes, please explain
   No

What is the average per student expenditure for students enrolled in NAAB accredited degree programs? This is the total amount of goods and services, per student, used to produce the educational services provided by the NAAB-accredited program.

The program(s) in this section are dependent on your selection in Section B, Question 1.

M Arch. Student Exp.
83400

What was the total amount of financial aid (Grants, loans, assistantships, scholarships, fellowships, tuition waivers, tuition discounts, veteran's benefits, employer aid [tuition reimbursement] and other monies other than from relatives/friends) provided to students to meet expenses. This includes Title IV subsidized and unsubsidized loans provided directly to student provided by the institution to students enrolled in each program(s) leading to a NAAB accredited degree during the last fiscal year?

The program(s) in this section are dependent on your selection in Section B, Question 1.

Financial Aid provided to graduate students in NAAB-accredited programs:
Total Graduate Financial Aid for last fiscal year: 266900
Average Graduate Financial Aid per student: 3215

What was the total number of graduate-level students employed on a part-time basis for the primary purpose of assisting in classroom or laboratory instruction or in the conduct of research during the last fiscal year?

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fiscal year within the NAAB-accredited programs offered by your institution? Please include: graduate assistant, teaching assistant, teaching fellow or research assistant in your calculation.

SECTION D: STUDENT CHARACTERISTICS FOR NAAB-ACCRREDITED DEGREE PROGRAMS
(If your institution offers more than one program, please provide the information for each program separately)

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Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include 'S' or '.'. A person can only be counted in one group.

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</table>

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include 'S' or '.'. A person can only be counted in one group.

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<td>3</td>
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</table>

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A person can only be counted in one group.

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<th>Part-Time</th>
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</table>

a. Total number of credits in professional architectural studies taken by full-time students for the last fiscal year: 1992
b. Total number of credits in professional architectural studies taken by part-time students in the last fiscal year: 0

SECTION E. DEGREES AWARDED
(The information requested in this section should be provided by the unit within the institution responsible for submitting the annual Completion Report to the National Center for Education Statistics and IPEDS.)

<table>
<thead>
<tr>
<th></th>
<th>B. Arch.</th>
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<th>D. Arch.</th>
</tr>
</thead>
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<tr>
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</table>

SECTION F. RESOURCES FOR STUDENTS AND LEARNING IN NAAB-ACREDITED PROGRAMS (all forms of media)

| Catalogued Titles on Main campus: | 211266   |
| Catalogued Titles on Other locations: | 70260    |
| Library of Congress NA or Dewey 720-729: | 201244 |
| Library of Congress NA or Dewey 720-729 Catalogued Titles on Main campus: | 10476   |
| Permanent Workstations on Main Campus: | 350     |
| Permanent Workstations at Other locations: | 0       |

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<tr>
<th>Resource Type</th>
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</tr>
<tr>
<td>Computer Facilities (Lab)</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

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Computer Output Facilities (Plotter, Specialized Plotter) Yes
Digital Fabrication Facilities Yes
Wireless Network Yes
Image Collection (Slide Library) Yes
Photo Studio/Darkroom Yes
Lecture Series Yes
Gallery/Exhibits Yes
Other No

If Other Resources, Please describe:

SECTION G. HUMAN RESOURCE SUMMARY (Architecture Program)
Faculty are defined as follows: Persons identified by the institution as such and typically those whose initial assignments are made for the purpose of conducting instruction, research or public service as a principal activity (or activities). They may hold academic rank titles of professor, associate professor, assistant professor, instructor, lecturer or the equivalent of any of those academic ranks. Faculty may also include the chancellors/president, provost, vice provosts, deans, directors or the equivalent, as well as associate deans, assistant deans and executive officers of academic departments (chairpersons, heads or the equivalent) if their principal activity is instruction combined with research and/or public service. The designation as "faculty" is separate from the activities to which they may be currently assigned. For example, a newly appointed president of an institution may also be appointed as a faculty member, graduate, instruction, and research assistants are not included in this category.

Those members of the instructional/research staff who are employed full time and whose major assignment is instruction, including those with release time for research. Includes full-time faculty for whom it is not possible to differentiate between teaching, research, and public service because each of these functions is an integral component of his/her regular assignment:

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include "5" or "." A person can only be counted in one group.

**Professor**

<table>
<thead>
<tr>
<th></th>
<th>Tenured Male</th>
<th>Tenured Female</th>
<th>Tenure-Track Male</th>
<th>Tenure-Track Female</th>
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**Associate Professor**

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<tbody>
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### Assistant Professor

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### Instructor

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</table>

Total credit hours taught by full time faculty: 2352

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include "$" or "." A person can only be counted in one group.

### Professor

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Printed for Chris Williams <chriswms@berkeley.edu> 12/5/2008

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**Associate Professor**

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**Assistant Professor**

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**Instructor**

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</tbody>
</table>

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Total credit hours taught by part-time faculty: 2856

Non-tenure track faculty service in a temporary or auxiliary capacity to teach specific courses on a course-by-course basis. Includes both faculty who are hired to teach an academic degree-credit course and those hired to teach remedial, developmental or ESL course; whether the latter three categories earn college credit is immaterial. Excludes regular part-time faculty, graduate assistants, full-time professional staff who may teach individual courses (such as the dean or academic advisor) and apprentices who teach non-credit courses exclusively.

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include "$" or "." A person can only be counted in one group.

<table>
<thead>
<tr>
<th>Professor</th>
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<table>
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Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include "$" or "." A person can only be counted in one group.

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</tr>
<tr>
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</tr>
<tr>
<td>Post-professional master's in architecture</td>
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<td>Other degrees</td>
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<tr>
<td>Registered in U.S. jurisdiction</td>
<td>7</td>
<td>6</td>
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</tbody>
</table>

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Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include "$" or "." A person can only be counted in one group.

<table>
<thead>
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<td>72180</td>
<td>77600</td>
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<tr>
<td>Instructor</td>
<td>1</td>
<td>55205</td>
<td>55405</td>
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</tr>
</tbody>
</table>

PART II: NARRATIVE REPORT
In addition to Annual Statistical Report (PART I), NAAB-accredited architecture degree programs are required to submit a Narrative Report (PART II).

This report has two sections:

- Describe the architecture program's responses to the most recent Visiting Team Report (VTR).
- The narrative must address Section 1.4 Conditions Not Met and Section 1.5 Causes of Concern of the VTR.
- Report changes to the architecture program since the last Annual Report was submitted.

Please note that a YES answer to Section B, Questions 3 or 4 requires the inclusion of a narrative report.

Annual Report required:
AROID_183_FilesType10_2.doc
Uploaded: 12/3/2008 0:18:16 PM
Size: 31.50 KB
Upload a new Document here

REVIEW AND SUBMIT REPORT
Selecting Review Report (above) will prepare a report regarding the completion and accuracy of your report. If the data submitted in PART I is complete then a preview of the report with any incorrect data clearly labeled will be provided. If any data is missing from the report a list of missing data will be provided.

Printable View

Printed for Chris Williams <chriswms@berkeley.edu> 12/5/2008
December 3, 2008
NAAB Narrative
To Whom It May Concern:

In the Fall Semester of 2007, our department had a focused evaluation, and the letter to President Dynes stated that the Board found we had made changes to the program that removed the “identified deficiencies”. The letter also asked that we continue to report on these areas.

The following list was originally identified as “deficiencies”: 12.14 Accessibility, 12.15 Life-Safety Systems, 12.19 Building Service Systems, 12.22 Building Systems Integration, 12.24 Building Code Compliance, and 12.29 Comprehensive Design. In the focused evaluation we showed how each was addressed in a variety of courses. However, to make it clear that these receive serious consideration, we have created a new graduate course, Arch 260 Construction for Graduates, taught every fall by Prof. Dana Buntrock, in which all these NAAB Criteria are addressed.

We offer three comprehensive studios every fall, and these have become a regular part of the graduate design studio offerings. In addition, we continue to monitor each student’s progress in possessing the required skills and knowledge as established by the NAAB. In each M Arch student file, there is a checklist in which they indicate which course they have taken to fulfill the requirement.

We have added another design faculty member, Ron Rael, this fall, and we have completed three searches: two senior positions in Architectural History and one junior position in digital design. We plan to add the historians in fall 2009, and the digital design person in fall 2010. We are also currently searching for a senior faculty member to serve as department chair, and hope to have that appointment in place in fall 2010.

Please let me know if you have further questions.

Respectfully,

Mary C. Comerio
Mary C. Comerio,
Professor and Chair
**University of California, Berkeley**

**Annual Report Submission for the year 2009**

Report has been submitted 0 times.

**PART I - ANNUAL STATISTICAL REPORT**

**SECTION A. INSTITUTIONAL CHARACTERISTICS**

1. **Program Contact Information**
   (reprinted from ACSA Guide)

   **Institution Name:** University of California, Berkeley  
   **Academic Unit Name:** Department of Architecture  
   **Address:** College of Environmental Design  
   **Architecture Program Tel. No.:** 510-642-4942  
   **Architecture Program E-mail:** arch.ode.berkeley.edu  
   **ACSA Region:** West

   In order to modify your organization information please visit the ACSA Guide site.

2. **Institution Type:** Using the definitions below, please select the appropriate Institution Type that matches that of your institution.

   **Public**

3. **Carnegie Classification**
   a. **Basic Classification:** R1/UH: Research Universities (very high research activity)

4. **Which regional accreditation agency accredits your institution?**

   **Western Association of Schools and Colleges (WASC)**

5. **In which ACSA region is the institution located?**

   **West**

6. **Who has direct administrative responsibility for the architecture program?**

   **Name:** Gail Brager  
   **Title:** Interim Chair

7. **To whom should inquiries regarding this questionnaire to be addressed?**

   **Name:** Gail Brager  
   **Title:** Interim Chair

---

Printed for Chris Williams <chriswms@berkeley.edu> 12/2/2009
9. Institutional Test Scores
   a. SAT
   Critical Reading:
   25th percentile SAT score: 580
   75th percentile SAT score: 710
   Mathematics:
   25th percentile SAT score: 620
   75th percentile SAT score: 750
   Writing:
   25th percentile SAT score: 590
   75th percentile SAT score: 710
   b. ACT
   25th percentile ACT score: 25
   75th percentile ACT score: 31
   c. GRE
   Verbal: N/A
   Quantitative: N/A
   Analytical: N/A

SECTION B. NAAB-ACCREDITED ARCHITECTURE PROGRAMS

1. Degree Programs
   a. Which NAAB accredited / candidate degree programs were offered during the last fiscal year?
      Accredited
      B. Architecture
      M. Architecture
      D. Architecture
      Candidate
      B. Architecture
      M. Architecture
      D. Architecture
   b. Did your institution offer any pre-professional architecture degree programs during the last fiscal year?
      Yes

<table>
<thead>
<tr>
<th>Degree Type</th>
<th>Available?</th>
<th>Full Degree Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Architectural Studies</td>
<td>No</td>
<td>Bachelor of Arts, Architecture</td>
</tr>
<tr>
<td>Bachelor of Arts</td>
<td>Yes</td>
<td>Bachelor of Architecture</td>
</tr>
<tr>
<td>Bachelor of Design</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Environmental Design</td>
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<td></td>
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<tr>
<td>Bachelor of Fine Arts</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Science</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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c. Did your institution offer any post-professional architecture degree programs during the last fiscal year?
No

Full Degree Title

2. Does your institution have plans to initiate any new NAAB-accredited degree programs?
No

3. Does your institution have plans to discontinue any of its NAAB-accredited degree programs?
No

4. What academic year calendar type does your institution have?
Semesters or Trimester

5. Credit Hours for Completion for each program:
The degree programs listed in this section are dependent on your selection in Section B, Question 1a. 
a. Indicate the total number of credit hours taken at your institution to earn each NAAB accredited/candidate degree program offered by your institution.
M. Architecture undergraduate (five years, no baccalaureate degree awarded prior): 120
M. Architecture Pre-Professional (degree designed for candidates that have a pre-professional degree in architecture): 48
M. Architecture Non-Pre-Professional (degree designed for candidates that have an undergraduate degree in a discipline other than architecture): 72

b. By degree, what is the distribution of the credit hours in the following: General Education, Professional, and Electives?
M. Architecture undergraduate (five years, no baccalaureate degree awarded prior)
General Education: 0
Professional: 0
Electives: 0
M. Architecture Pre-Professional (degree designed for candidates that have a pre-professional degree in architecture)
General Education: 0
Professional: 23
Electives: 25
M. Architecture Non-Pre-Professional (degree designed for candidates that have an undergraduate degree in a discipline other than architecture)
General Education: 0
Professional: 60
Electives: 12

6. Average credit hours per student per term by degree program?
M. Architecture undergraduate (five years, no baccalaureate degree awarded prior): 120
M. Architecture Pre-Professional (degree designed for candidates that have a pre-professional degree in architecture): 48

Printed for Chris Williams <chriswms@berkeley.edu> 12/2/2009
SECTION C. TUITION, FEES AND FINANCIAL SUPPORT FOR STUDENTS IN NAAB-ACCREDITED PROGRAMS

1. Tuition is defined as “the amount of money charged to students for instructional services. Tuition may be charged per credit, per term, or per academic year.”

a. What were the tuition and fees for the NAAB-accredited degree program(s) for the last fiscal year:

M. Architecture

If this section is not applicable, please enter all zero’s (0).

<table>
<thead>
<tr>
<th>Tuition</th>
<th>Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time Student</td>
<td></td>
</tr>
<tr>
<td>In-State</td>
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</tr>
<tr>
<td>Out-of-State</td>
<td>15007</td>
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<tr>
<td>Part-Time Student</td>
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</tr>
<tr>
<td>In-State</td>
<td>0</td>
</tr>
<tr>
<td>Out-of-State</td>
<td>0</td>
</tr>
</tbody>
</table>

b. Does the institution offer discounted or differential tuition for a NAAB-accredited degree program?

No

c. Is a summer session required for any portion of your accredited degree program(s)?

No

If yes, what is the additional tuition and fees for the summer program?

<table>
<thead>
<tr>
<th>Tuition</th>
<th>Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time Student</td>
<td></td>
</tr>
<tr>
<td>In-State</td>
<td>0</td>
</tr>
<tr>
<td>Out-of-State</td>
<td>0</td>
</tr>
<tr>
<td>Part-Time Student</td>
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</tr>
<tr>
<td>In-State</td>
<td>0</td>
</tr>
<tr>
<td>Out-of-State</td>
<td>0</td>
</tr>
</tbody>
</table>

d. Does the institution offer discounted or differential tuition for summer courses for a NAAB-accredited degree program?

No

Additional Comments

2. Financial Aid

What was the percent of students financial aid at both the institutional and architecture program levels (Grants, loans, assistantships, scholarships, fellowships, tuition waivers, tuition discounts, veteran’s benefits, employer aid [tuition reimbursement] and other money [other than from relatives/friends) provided to students to meet expenses?

| Percentage of Average amount |
| student by receiving aid types of aid |

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### 4. Supplemental

<table>
<thead>
<tr>
<th>Institution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Grants</td>
<td>30</td>
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<td>State/Local Grants</td>
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<td>Institutional Grants</td>
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<tr>
<td>Student Loans</td>
<td>31</td>
</tr>
</tbody>
</table>

<table>
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<th>Architecture Program</th>
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</tr>
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<tbody>
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<td>State/Local Grants</td>
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<tr>
<td>Institutional Grants</td>
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</tr>
<tr>
<td>Student Loans</td>
<td>54</td>
</tr>
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</table>

### 3. Graduate Assistantships

What was the total number of graduate-level students employed on a part-time basis for the primary purpose of assisting in classroom or laboratory instruction or in the conduct of research during the last fiscal year (Jul 1 – Jun 30) within the NAAB-accredited programs offered by your institution?

a. How many graduate assistantships were awarded during last fiscal year? 55
b. What do graduate assistants receive?

#### Stipend?
- Yes
- Amount: $5,339.00

#### Tuition Remission?
- Yes

If tuition, how much? $931
If credit hours, how many? 0

### SECTION D. STUDENT CHARACTERISTICS FOR NAAB-ACCREDITED DEGREE PROGRAMS

#### 1. Applicant Cycle

**a. Applicants:** Indicate the total number of individuals who fulfilled the institution’s requirements to be considered for admission (including payment or waiving of the application fee, if any) and who had been notified of one of the following actions during the last fiscal year: admission, nonadmission, placement on a waiting list, or application withdrawn by applicant or institution. Programs are requested to complete the more specific numbers by gender and ethnicity if available, but are not required to do so.

| M. Architecture Total Number: | 664 |

<table>
<thead>
<tr>
<th>M. Architecture</th>
</tr>
</thead>
<tbody>
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<td>Male</td>
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</tr>
<tr>
<td>Asian</td>
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<tr>
<td>Native Hawaiian or other Pacific Islander</td>
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<tr>
<td>Black or African American</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
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<td>White</td>
</tr>
<tr>
<td>Two or more races</td>
</tr>
<tr>
<td>Nonresident alien</td>
</tr>
<tr>
<td>Race and ethnicity unknown</td>
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<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

| Pre-Professional Total Number: | |

<table>
<thead>
<tr>
<th>Pre-Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
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<td>Native Hawaiian or other Pacific Islander</td>
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</tr>
<tr>
<td>White</td>
</tr>
<tr>
<td>Two or more races</td>
</tr>
</tbody>
</table>
b. Admissions (students admitted): Indicate the total number of applicants that have been granted an official offer to enroll. Programs are requested to complete the more specific numbers by gender and ethnicity if available, but are not required to do so.

M. Architecture Total Number: 95

<table>
<thead>
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Pre-Professional Total Number: 0

Pre-Professional

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<tr>
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<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

c. Entering Students: (update question from definition below) Indicate the number of individuals who enrolled during the last fiscal year. Exclude readmitted students who were counted as enrolled in a prior year. As this data is available from the institution, programs are required to provide the specific numbers by gender and ethnicity.

M. Architecture

<table>
<thead>
<tr>
<th>Race and ethnicity</th>
<th>Male Full Time</th>
<th>Part Time</th>
<th>Female Full Time</th>
<th>Part Time</th>
<th>TOTAL Full Time</th>
<th>Part Time</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
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<td>Asian</td>
<td>0</td>
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<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>Native Hawaiian or other Pacific Islander</td>
<td>0</td>
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<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Black or African American</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>Hispanic/Latino</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>53</td>
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<td>95</td>
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<td>4</td>
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</table>

M. Architecture Total Number: 46

Pre-Professional

<table>
<thead>
<tr>
<th>Race and ethnicity</th>
<th>Male Full Time</th>
<th>Part Time</th>
<th>Female Full Time</th>
<th>Part Time</th>
<th>TOTAL Full Time</th>
<th>Part Time</th>
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<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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### 4. Supplemental

#### 2. Total architecture enrollment in NAAB-Accredited program by race/ethnicity

**M. Architecture**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Male</th>
<th>Female</th>
<th>TOTAL</th>
<th>GRAND TOTAL</th>
</tr>
</thead>
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<td>American Indian or Alaska Native</td>
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**M. Architecture Total Number:** 55

**Pre-Professional**

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<th>GRAND TOTAL</th>
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</tbody>
</table>

**Pre-Professional Total Number:** 0

### SECTION E. DEGREES AWARDED

1. What is the total number of NAAB-accredited degrees that were awarded in the last fiscal year?

**M. Architecture**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Male</th>
<th>Female</th>
<th>TOTAL</th>
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<td>Black or African American</td>
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</tr>
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**Pre-Professional**

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</tbody>
</table>

Printed for Chris Williams <chriswms@berkeley.edu> 12/2/2009
2. Time to Completion:

M. Architecture undergraduate (five years, no bachelor’s degree awarded prior)
   a. Time to completion equals the total number of semesters/quarters to complete the degree
   b. Percentage of students that graduate in ‘normal time to completion’

M. Architecture Pre-Professional (degree designed for candidates that have a pre-professional degree in architecture)
   a. Time to completion equals the total number of semesters/quarters to complete the degree
   b. Percentage of students that graduate in ‘normal time to completion’

M. Architecture Non Pre-Professional (degree designed for candidates that have an undergraduate degree in a discipline other than architecture)
   a. Time to completion equals the total number of semesters/quarters to complete the degree
   b. Percentage of students that graduate in ‘normal time to completion’

SECTION F. RESOURCES FOR NAAB-ACCREDITED PROGRAMS

1. Total number of catalogued titles in the architecture library collection
   Main Campus: 205478

2. Total number of catalogues titles that have Library of Congress NA or Dewey 720-729
   Main Campus: 69728

3. What is the total number of permanent workstations (studio desks) that can be assigned to students enrolled in design studios?
   Main Campus: 360

4. Are your students required to have a laptop computer?
   No

5. Please indicate which of the following: labs, shop, and other learning resources available to all students enrolled in NAAB accredited degree program(s)

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<tr>
<td>Computer Facilities (Lab)</td>
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</tr>
<tr>
<td>Computer Output Facilities (Plotters, Specialized plotting)</td>
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</tr>
<tr>
<td>Digital Fabrication Facilities</td>
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<td>Wireless Network</td>
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<td>Image Collection (Slide Library)</td>
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<td>Photo Studio/Darkroom</td>
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<td>Lecture Series</td>
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<td>Gallery/Exhibits</td>
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<td>Other</td>
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If other resources are available, please describe:
Our photo studio and digital photo printing are currently available. Wet darkroom closed 5/2009.

6. Financial Resources
   a. Total revenue from all sources: 2001000
   b. Expenditures

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### 4. Supplemental

**SECTION G. HUMAN RESOURCE SUMMARY (Architecture Program)**

#### 1. Credit Hours Taught

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#### 2. Instructional Faculty

**a. Full-time Instructional Faculty**

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Printed for Chris Williams <chriswms@berkeley.edu> 12/2/2009
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| White | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 3 |
| Two or more races | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
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**Instructor**

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**Part-Time Instructional Faculty**

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**Associate Professor**

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**Assistant Professor**

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Printed for Chris Williams <chriswms@berkeley.edu> 12/2/2009
Supplemental 228

### Instructor

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### Adjunct Faculty

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### Faculty Credentials:

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Printed for Chris Williams <chriswms@berkeley.edu> 12/2/2009
4. Supplemental  229

http://ars.aab.org/arsprint.aspx?print=yes&shdr=0000&ARQld=312

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A person can only be counted in one group.

Printed for Chris Williams <chriswms@berkeley.edu>  12/2/2009
4.7 SCHOOL CATALOG

Printed from the website on the following pages: http://osoc.berkeley.edu/catalog/
Enter “Arch” under “Department Abbreviation”

ARCHITECTURE PROGRAM REPORT —SUPPLEMENTAL
MASTER OF ARCHITECTURE DEGREE

Department Overview

The Department of Architecture at UC Berkeley has a strong tradition of fostering independent design thinking and research. Our award-winning faculty offers rigorous undergraduate and graduate study in a wide range of architectural design disciplines, including urban design, historic preservation, and building systems. The department is known for its innovative and collaborative approach to architectural education, and its commitment to sustainability and social justice.

School Philosophy

Undergraduate Philosophy: Undergraduate study in the College of Environmental Design provides a liberal education among an active community of students, scholars, creative designers, and technologists concerned with the built environment, within the larger environment of a great university. Graduate Philosophy: Graduate programs in architecture aim to educate architects and scholars who contribute to the practice and discipline of architecture and to the development of a technologically sophisticated and humane built environment. The professional program is intended to develop students’ abilities to conceive and accurately describe the appropriate built spaces at several scales, to help them plan processes used to bring buildings to life, and to provide a basis for understanding the consequences that complex buildings and operaions have for inhabitants, society, and the environment.

In both its undergraduate and graduate programs, the department puts special emphasis on the studio element of its academic program, recruiting active architecture professionals to work in consultation with regular faculty in leading the courses.

Program Description

Undergraduate Program: Undergraduate enroll is in a four program leading to the Bachelor of Arts degree with a major in architecture.

The undergraduate program in architecture combines required courses in environmental design and architecture with opportunities for highly varied individual programs. Through its core courses, the program offers a broad introduction to the field of architecture through studio and design coursework in a variety of areas. It provides opportunities to prepare for specialization in the field in the areas of architectural design and representation, architectural technology, and building performance. Architectural history and theory is also included in selected courses.

In all, the program is designed to provide a broad introduction to the field through studio and design coursework in a variety of areas. It provides opportunities to prepare for specialization in the field in the areas of architectural design and representation, architectural technology, and building performance. Architectural history and theory is also included in selected courses.

Adjoint Associate Professor

Catherine Muck (Arts and Architecture, University of California, Berkeley) is a practicing architect and design consultant.

4. Supplemental

231
Architectural Space / 119

4. Supplemental

Ph.D. in Architecture

The Ph.D. program in Architecture is designed to prepare students for careers in academic and professional environments, focusing on research and scholarly contributions. The program is geared towards students who wish to pursue a career in research and teaching in architecture and related fields. The program is offered through the College of Environmental Design, Department of Architecture.

**Program Requirements**

- **Master of Architecture**
  - Core Courses: Architectural History, Theory, and Method
  - Electives: Advanced Design, Technology, and Materials

- **Doctor of Architecture (Ph.D.)**
  - Core Courses: Advanced Design Research, Professional Practice
  - Electives: Specialized courses in architectural history, theory, and methodology

**Program Outcomes**

- **Professional Practice**
  - Students will be able to design and critique architectural spaces and environments.
  - Students will be able to apply theoretical knowledge to practical design problems.

- **Scholarly Research**
  - Students will conduct original research in architectural theory and history.
  - Students will contribute to the scholarly literature through publications and presentations.

**Admission Requirements**

- A bachelor's degree in architecture or a related field is required.
- A competitive GPA (3.0 or higher) in previous architectural studies.
- A portfolio of design work and written statement of purpose.

**Financial Aid**

The program offers various forms of financial aid, including scholarships, loans, and assistantships. Students are encouraged to apply for these opportunities to support their academic pursuits.

**Career Opportunities**

Graduates of the Ph.D. program in Architecture are prepared for careers in academia, research institutions, and professional firms. They may assume roles as professors, researchers, and consultants, contributing to the advancement of architectural knowledge and practice.

---

**Special Activities and Programs**

- **Postgraduate Workshops**
  - The program offers workshops and seminars focused on emerging trends in architecture, technology, and sustainability.
- **Collaborative Projects**
  - Students have the opportunity to collaborate with industry partners on real-world architectural projects.
- **Research Externships**
  - Students may complete externships with leading architectural firms and institutions to gain practical experience.

---

**Faculty and Research Areas**

The faculty consists of distinguished scholars and practitioners with expertise in diverse fields, including architectural history, theory, and design. Research areas range from sustainable design to historical preservation, providing students with a rich learning environment.

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**Graduation Requirements**

- A total of 72 units is required, including 24 units in core courses and 48 units in electives.
- Students must complete a thesis or a project under the guidance of a faculty advisor.

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For more information, please visit the College of Environmental Design, Department of Architecture website or contact the admissions office directly.
120. **Introduction to the Practice of Architecture.** (5) Three hours of lecture per week. Corequisite: ARCH 200, 201. Three hours of studio per week. Two hours of lecture and four hours of studio per week. Five sections are offered. (F) Fall

121. **Architectural Internship.** (5) Twenty-four hours of lecture/seminar and 160 hours of internship per semester. Prerequisites: Consent of instructor. Details about placement, credit, and evaluation of internships. The internship program is designed to provide students with opportunities to learn about professional practice in architecture through structured learning experiences. (SP) Spring

122. **Senior Thesis.** (3) Six to eight hours of lecture per semester. Open to seniors. Prerequisite: Consent of instructor. Thesis proposals are due in the fall semester. (F) Fall

123. **Architecture of Globalization: Contexts of Global Culture.** (3) Three hours of lecture per semester. Prerequisite: Consent of instructor. This course is open to graduate students and upper division undergraduate students. It examines the relationship between architecture and the processes associated with globalization. The course is divided into two parts: an introduction to globalization and a case study of a specific city. (SP) Spring

124. **Advanced Computer-aided Rendering and Animation.** (4) Three hours of lecture and three hours of studio per week. Prerequisites: Consent of instructor. This course is open to students with a background in architecture or related fields. It covers the fundamentals of computer-aided rendering and animation, with a focus on the use of software tools for architectural visualization. (F, SP) Fall

125. **Senior Thesis.** (3) Six to eight hours of lecture per semester. Open to seniors. Prerequisite: Consent of instructor. Thesis proposals are due in the fall semester. (F) Fall

126. **Architectural History, Culture, and Society.** (Upper Division Courses)

127. **Architectural Theory.** (4) Four hours of lecture and two hours of studio per week. Prerequisite: Consent of instructor. This course is open to students with a background in architecture or related fields. It covers the fundamentals of architectural theory, with a focus on the use of software tools for architectural visualization. (F) Fall

128. **Senior Thesis.** (3) Six to eight hours of lecture per semester. Open to seniors. Prerequisite: Consent of instructor. Thesis proposals are due in the fall semester. (F) Fall

129. **Introduction to the Practice of Architecture.** (5) Three hours of lecture and four hours of studio per week. Corequisite: ARCH 200, 201. Three hours of studio per week. Two hours of lecture and four hours of studio per week. Five sections are offered. (F) Fall

122. **Architectural Internship.** (5) Twenty-four hours of lecture/seminar and 160 hours of internship per semester. Prerequisites: Consent of instructor. Details about placement, credit, and evaluation of internships. The internship program is designed to provide students with opportunities to learn about professional practice in architecture through structured learning experiences. (SP) Spring

124. **Senior Thesis.** (3) Six to eight hours of lecture per semester. Open to seniors. Prerequisite: Consent of instructor. Thesis proposals are due in the fall semester. (F) Fall

125. **Senior Thesis.** (3) Six to eight hours of lecture per semester. Open to seniors. Prerequisite: Consent of instructor. Thesis proposals are due in the fall semester. (F) Fall

126. **Architectural History, Culture, and Society.** (Upper Division Courses)

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128. **Senior Thesis.** (3) Six to eight hours of lecture per semester. Open to seniors. Prerequisite: Consent of instructor. Thesis proposals are due in the fall semester. (F) Fall
by the instructor, lectures, panels of guests, and stu-
dent presentations. The seminar—one half-hour session
will focus on projects and fieldwork. This course sat-
tifies the American Culture requirement. (F) Conte'

111. Housing: An International Survey. (3) Three
hours of lecture per week. Introduces different
trends in housing throughout the world. The
seminar will examine a variety of housing themes
ranging from technical and economic approaches
to the current and historical trends in housing.
(S) Staff

130. Introduction to Design Theories and Meth-
ods. (3) Three hours of lecture per week. This
introduction to design theory will explore the
historical progression of architectural movement,
styles, and themes. This seminar will examine
the development of architectural theory from the
prehistoric to the modern period. (F) Franco

190A-190B. An Historical Survey of Architecture and
Urbanism. (4, 4) Four hours of lecture and 15
hours of seminar per week. The first part of this
sequence studies the ancient and medieval periods,
the second part studies the period since 1600.
The aim is to look at architecture and urbanism
in their social and historical context. (F, S) Staff

173A. Modern Architecture. (4) Four to five
hours of lecture per week. Prerequisites: 174/174B and
consent of instructor. (F, S) Students

174A. Architecture in Depression and War. (3)
Three hours of lecture and one hour of seminari
per week. The Great Depression and World War II
are arguably the two most influential events for
the development of the built environment in the
20th century. This seminar examines the social,
political and cultural landscape on which architecture
and urbanism are situated. The seminar will focus on
innovations and radical shifts in the built environ-
ment. This course examines the 1920s and 1930s
and their impact on modernist architecture and urban
planning. The course will consider the work of
architects such as Mies van der Rohe, Le Corbusier,
and Frank Lloyd Wright. The course will also
examine the role of the museum in the promotion
of modern architecture. (S) Staff

175A. In Form or History of Architecture. (1-
4) Course may be repeated for credit. Fifteen
hours of lecture and one hour of seminar per
week. Prerequisites: 174/174B and consent of
instructor. Special topics in Architectural History. For
curricular seminar offerings, see departmental announcement. (F, S) Staff

211. Theory and Methods in the Social and Cul-
tural History of Design. (4) Course may be repeated
for credit. Three hours of seminar per week plus
independent research. Prerequisite: 171 or
consent of instructor. Provides a survey of various
theories which explain and document the rela-
tionships between individuals and the environment.
The course will focus on the development of
methodology and analytical tools appropriate to
social historians. (F) Conte'

212. Body-Concept Design. Shoe, Chairs, Rooms,
and Beyond. (3) Three hours of seminar per
week. This seminar explores the relationship
between humans and their environment. The
course will examine the role that design plays in
shaping the human experience and how design
impacts human behavior. (F) Conte'

221. Cultural Theory and Design. Environmental
Design. (4) Three hours of lecture per week. The
course examines the relationship between culture
and design. The course will focus on the role of
design in shaping human behavior and how design
impacts human experience. (F) Conte'

230. Special Topics in Architectural History. (1-
4) Staff

Course may be repeated for credit as topic varies.
Prerequisites: 211 and 231A through 231D. Selec-
ted topics such as social policy and building
environmants for special populations, birth and
death, escape and horror films, personal and
social values in design, participation design, and
urban parks. For current seminar offerings, see depart-
mental announcement. (F, S) Staff

230A. Design and Housing in the Developing World.
(3) Staff

239. Advanced Design Theories and Methods. (3)
Fifteen hours of lecture per week. Prerequisites:
Theories of design and architectural design and
planning methods. These theoretical foundations
and practical applications. (F, S) Staff

239C. Research Methods for Design. (3) Thirty-
hours of lecture per week. Methods of scien-
tific research and the use of research in design.
Required for doctoral students in the area of Design
Theories and Methods

266B. Seminar in Design Theories and Methods for
Student Projects. (1-4) Course may be repeated
for credit. Three hours of seminar per week. Must
be taken on a satisfactory/unsatisfactory basis. Required
for doctoral students in this study area. (F, S) Staff

276. Urban speculation. Monographs and Man-
cifestos. (3) Three hours of seminar per week.
Provides an overview of contemporary research
and analytical text on architectural studies.
Examinations and analysis of architectural manufa-
cets and strata of architecture from the mid-19th
century to today. The class examines the possibilities
and limitations of presenting discourse in practice as
well as theory. The seminar examines the relationship
between architecture and urbanism and explores
the implications of theories about design.
(F) Conte'

299. Seminar in Design Theories and Methods.
Course may be repeated for credit as topic varies.
Prerequisites: 215A or consent of instructor. (F, S)

299A. Design and Computers. (1-4)

299B. Special Topics in Design Theories and Methods
(1-4) Staff

299C. Methods of Historical Research and Critical
Architecture. (4) Sixty hours of lecture per week.
Prerequisites: 215A or consent of instructor. (F, S)

299D. Design and Computers. (1-4)

475. Special Topics in Architectural History. (1-
4) Staff

299E. Methods of Inquiry in Architectural Research.
(4) Four hours of lecture per week. Prereq-
quisites: M.S. or Ph.D. standing or consent of instruc-
tor. This is the introductory course in methods
of research in architecture. The course is designed
for Ph. D. students in all areas of the program.
The purpose is to train students in pre-research
and pre-analysis skills and to provide a variety of
research methods including the value of schol-
ary research, the nature of evidence, critical reading
as content analysis and writing, presenting and illus-
trating scholarship in the various disciplines of archi-
tecture. (F, S) Staff

Architectural Technologies and Building Performance
Upper Division Courses

140. Introduction to Energy and Environmental
Management. (4) Fifty hours of lecture and 30 hours
of discussion per semester. This course is designed
for students in architecture, and is offered as a
required course for students majoring in archi-
tecture or environmental management. This course
will cover a wide range of issues related to energy
and environmental management. (F) Conte'
4. Supplemental

235

122 / Architecture

emphasizes quantitative design techniques. (SF) Banter, Binger

149. Seminar on the Physical Environment in Buildings. Course may be repeated for credit as topics change. Prerequisites: 140. Special topics such as acoustics, electrical design, lighting, ventilation, air-conditioning systems, heating, and materials. (F) Staff

150. Introduction to Structures. (4) Forty-five hours of lecture and 15 hours of laboratory per semester. Prerequisites: 40, 140A. (F) Staff

151. Design and Computer Analysis of Structures. (3) Four hours of lecture and 6 hours of laboratory per semester. Prerequisites: 140. (F) Staff

152. Seminar in Building Studies. Course may be repeated for credit as topics change. Five hours of lecture per semester. (F) Staff

153. Seminar in Building Design. (3) Forty-five hours of lecture/seminar per semester. Prerequisites: Consent of instructor. (F) Staff

154. Introduction to Construction. (6) Three hours of lecture and 15 hours of laboratory per week. Prerequisites: 140, 140A. Design and analysis of structural systems of buildings with a brief introduction to finite element analytical methods. Advanced structural design concepts explored in a laboratory environment. (SP) Black

155. Seminar in Building Structures. Course may be repeated for credit as topics change. Five hours of lecture/seminar per semester. Prerequisites: Consent of instructor. (F) Staff

156. Special Topics in Building Structures. (1-4) Selected topics such as structural properties and architectural presentation. (F, SP) Staff

157. Special Topics in Building Construction. (1-4) Four hours of lecture/seminar per semester. Prerequisites: 140. Selected topics such as structural design, structural systems, structural analysis, structural materials, structural design and construction techniques. (F, SP) Staff

158. Seminar in Building Design. (3) Four hours of lecture/seminar per semester. Prerequisites: 140. Selected topics such as structural design, structural systems, structural analysis, structural materials, structural design and construction techniques. (F, SP) Staff

159. Special Topics in Building Design. (1-4) One to four hours of lecture/seminar per semester. (F, SP) Staff

Special Studies Courses

Upper Division Courses

181. Special Group Study. (1-4) Course may be repeated for credit. Enrollment is restricted; see the "Introduction to Courses and Credit" section of this catalog. Must be taken on a pass/fail or credit/no credit basis. (F, SP) Staff

182. Supervised Independent Study and Research. (1-4) Course may be repeated for credit. Students are to complete the work under the general direction of the instructor and must be regularly enrolled in a course. (F, SP) Staff

183. Special Group Study. (1-4) May be repeated for credit up to total of 12 units. Sections 1-4-6 may be used in satisfaction of the university's General Education requirements. (F, SP) Staff

184. Individual Study and Research for Master's and Doctoral Students. (1-12) Course may be repeated for credit. Enrollment is restricted; see the "Introduction to Courses and Credit" section of this catalog. Must be taken on a pass/fail or credit/no credit basis. (F, SP) Staff

185. Introduction to the Physical Environment in Buildings. (2) Three hours of lecture per semester. Prerequisites: 140. (F) Staff

186. Off-Site Fabrication. (3) Two hours of lecture and one hour of discussion per week. Prerequisites: 140. (F) Staff

187. Seminar in the Teaching of Architecture. (2) Two hours of seminar per week. Must be taken on a satisfactory/no satisfactory basis. (F) Staff
4. Supplemental

Art and History of Art [123]

Work by students is featured in the exhibits of the Worth Ryder Art Gallery, an adjunct educational facility that is open to the public.

Major Program

Prospective art majors should contact the Art Practice Department regarding their application to the major.

Transfer Students: If you are transferring to Berkeley with no previous college-level art courses, you are subject to the new art major. All new majors must complete Art 8 and 12, and two of the following: 13, 14, 16, and 23AC. You must also complete one upper division studio art honors and three specified courses in History of Art (see below).

Lower Division: Art 8 and 12 (required of all art majors), and two from the following: 10, 14, 16, and 23AC.

Upper Division: Art 117 or 118, and five additional upper division courses in practice of art.

History of Art: A minimum of three courses, one chosen from each of the following three course clusters:

a. Any one lower division History of Art class;

b. Twentieth-Century Art: AA 190 through AA 190 series;

c. One upper division art history course of the student's choosing.

With the consent of the major advisor, a student may be given credit toward the major for up to two art-related courses taken outside the department, e.g., Set Design (Theater, Dance, and Performance Studies), Photography (College of Environmental Design), etc.

Honors Program in the Practice of Art, with an overall GPA of 3.5 or higher who are in their senior year may, with the permission of the regular faculty members, enroll in the honors program. This is an independent study offering, limited to a maximum of two semester units and a maximum of 18 units in total. A final grade is given at the conclusion of the program. Courses count toward the major as they are taken for a letter grade.

Graduate Program

The Department of Art offers a two-year program of study leading to the M.F.A. degree in the practice of art.

The B.A. or B.F.A. in studio art or its equivalent is prerequisite to the M.F.A. degree.

For the M.F.A., students must complete a total of 64 units that include six graduate seminars, one 20th-century art history course, one upper-division course and four studio and independent study courses. Students must also produce a comprehensive body of creative work to be exhibited in the final M.F.A. exhibition.

Further information about this program may be obtained from the Art Office, 345 Knowles Hall.

Lower Division Courses

8. Introduction to Visual Thinking (4) One hour of lecture and six hours of studio per week. Prerequisite: 6A/6X. A first course in the language, processes, and media of visual art. An overview of the basic elements of art and their interrelationships. Taught by a visual art faculty member.

12. The Language of Drawing (4) Three hours of lecture and six hours of studio per week. Prerequisite: 6A/6X. An introduction to drawing as a tool for articulating what the eyes, hand, and mind discover and investigate. (F) Staff.

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4.8 NAAB RESPONSES TO THE ANNUAL REPORTS

2004 – see response to our Visiting Team Report, section 4.5
2005 – below
2006 – we cannot find any record of the NAAB response
2007 – see response to our Focused Evaluation Team Report, section 4.5
2008 – below

NAAB RESPONSE TO THE UNIVERSITY OF CALIFORNIA BERKELEY 2005 ANNUAL REPORT

AR Date: September 30, 2005
VTR Date: October 8, 2003

Section One:
Checklist of required elements

1. Statistical Report X Included □ Not Included
2. Response to deficiencies identified in the most recent VTR X Included □ Not Included
3. Changes in the accredited program X Included □ Not Included

Section Two (A):
Assessment of response to deficiencies

Condition 12.14, Accessibility
☐ Satisfied, no further reporting required† ✓ Further progress needed
Continue reporting on the success of the checklist for students to record their professional education under advisement from faculty.

Condition 12.19, Life-Safety Systems
☐ Satisfied, no further reporting required† ✓ Further progress needed
Continue reporting on the success of the checklist for students to record their professional education under advisement from faculty.

Criterion 12.21, Building Service Systems
☐ Satisfied, no further reporting required† ✓ Further progress needed
Continue reporting on the success of the checklist for students to record their professional education under advisement from faculty.

Criterion 12.22, Building Systems Integration
☐ Satisfied, no further reporting required† ✓ Further progress needed
Continue reporting on the success of the checklist for students to record their professional education under advisement from faculty.

† Although an area may be marked "satisfied, no further reporting required," the next visiting team may include in its report its own assessment of the program's response to the deficiency.
Criterion 12.24, Building Code Compliance

☐ Satisfied, no further reporting required† ☑ Further progress needed

Continue reporting on the success of the checklist for students to record their professional education under advisement from faculty.

Criterion 12.29, Comprehensive Design

☐ Satisfied, no further reporting required† ☑ Further progress needed

Continue reporting on the success of the checklist for students to record their professional education under advisement from faculty. Also continue reporting on the effectiveness of the three models for the new comprehensive design studio.

Section Two (B):
Assessment of response to causes of concern

Student Choices

☐ Satisfied, no further reporting required† ☑ Further progress needed

Continue reporting on efforts to retain the richness of student individually-defined education while meeting the NAAB educational conditions.

Campus Redevelopment

☐ Satisfied, no further reporting required† ☑ Further progress needed

Continue reporting on the success of student involvement in the campus design review committee and other educational opportunities to engage the College in campus planning and construction.

Department Linkages

☐ Satisfied, no further reporting required† ☑ Further progress needed

Continue reporting on initiatives to link educational opportunities across the disciplines within the College such as the joint studio, Metropolitan Studies and New Media.

† Although an area may be marked “satisfied, no further reporting required,” the next visiting team may include in its report its own assessment of the program’s response to the deficiency.
Technology Support

☐ Satisfied, no further reporting required†  ✔ Further progress needed

The annual report identifies a significant number of improvements in the provision of electronic media for students in studios and labs. Continue reporting on the provision of tech support for these and other planned improvements in computing resources.

Comprehensive Design

☒ Satisfied, no further reporting required†  ✔ Further progress needed

See section two, condition 12.29 above.

Section Three:
Changes to the accredited program

The annual report details changes in course requirements, physical resources, faculty, staff and administration.

† Although an area may be marked “satisfied, no further reporting required,” the next visiting team may include in its report its own assessment of the program’s response to the deficiency.
NAAB RESPONSE TO UNIVERSITY OF CALIFORNIA AT BERKELEY
2008 ANNUAL REPORT

Rec'd Date: December 5, 2008
Year of Next Visit: 2010

Section One:
Checklist of required elements
Part I Statistical Report Included
Part II Narrative Report Not Included

Section Two:
Assessment of Narrative Report

DEFICIENCIES
Criterion 12.14: Accessibility
Satisfied per focused evaluation in F2007, no further reporting required. The program is encouraged to
include sufficient details on ARCH260 Construction for Graduates in the APR for the upcoming visit in
2010.

Criterion 12.15: Life-Safety Systems
Satisfied per focused evaluation in F2007, no further reporting required. The program is encouraged to
include sufficient details on ARCH260 Construction for Graduates in the APR for the upcoming visit in
2010.

Criterion 12.18: Building Service Systems
Satisfied per focused evaluation in F2007, no further reporting required. The program is encouraged to
include sufficient details on ARCH260 Construction for Graduates in the APR for the upcoming visit in
2010.

Criterion 12.22: Building Systems Integration
Satisfied per focused evaluation in F2007, no further reporting required. The program is encouraged to
include sufficient details on ARCH260 Construction for Graduates in the APR for the upcoming visit in
2010.

Criterion 12.24: Building Code Compliance
Satisfied per focused evaluation in F2007, no further reporting required. The program is encouraged to
include sufficient details on ARCH260 Construction for Graduates in the APR for the upcoming visit in
2010.

Criterion 12.29: Comprehensive Design
Satisfied per focused evaluation in F2007, no further reporting required. The program is encouraged to
include sufficient details on ARCH260 Construction for Graduates in the APR for the upcoming visit in
2010 as well as the checklist included in each MArch student file.

CAUSES OF CONCERN

CHANGES TO THE ACCREDITED PROGRAM
The program reports no changes.

Although an area may be marked “satisfied, no further reporting required,” the visiting team may include in its report its own
assessment of the program’s response to the deficiency.