# **Department of Architecture**

The Department of Architecture is dedicated to a socially responsible, technologically sophisticated, environmentally sensitive, and culturally engaging vision of architecture. It is distinguished in that it includes within one department the many disciplines required for an architecture curriculum; more significantly, it creates the opportunity for each discipline to have specialized advanced degree programs. We incorporate outstanding research and teaching programs in each of the following discipline groups: Architectural Design; Building Technology (BT); Computation; History, Theory, and Criticism (HTC); and Visual Arts. Undergraduates can earn a bachelor of science in architecture studies with a concentration in one of five discipline streams (architectural design; visual arts; building technology; history, theory, and criticism of architecture and art; and computation) and can minor in architecture and history of art and architecture.

The commonly shared attributes of the Department that cut across the discipline groups are our devoted and spirited teaching, the grounding of architecture in both social and material issues, interdisciplinarity, and the remarkable internationalism of faculty, students, teaching, and research. The faculty includes architects, landscape architects, urbanists, building technologists and engineers, historians of art and architecture, artists, and various specialists in areas of architectural research, including computation as it addresses design issues. The Department remained committed to expanding the master's programs.

After two years of intense searches, our faculty has been tremendously strengthened by a series of new appointments and promotions. On the tenured level, Nader Tehrani and Rahul Mehrotra joined our department last year and James Wescoat joined us this year. Tehrani and Mehrotra are both architects. Since coming to MIT, Tehrani has been charged with reshaping the Master of Architecture (MArch) core design program; Mehrotra has become the director of the Master of Science in Architectural Studies (SMArchS) program and a cochair of SMArchS committee; he is spearheading a critical reexamination of the SMArchS program with the mandate of updating the program and curricular needs related to the post-professional degree. After changes in the MArch curriculum, revamping SMArchS, another major program in the Department in terms of enrollment, is the new priority of the ongoing reform. As the new Aga Khan professor, Wescoat is both a landscape architect and scholar and will become another bridge person between the HTC and Architectural Design disciplines.

On the tenure-track level, architect/theorist Ana Miljacki arrived at MIT in the spring of 2008 and is now playing a key role in the MArch core design program, and art historian Kristel Smentek will start in the fall of 2008. We have also appointed architect Sheila Kennedy as a professor of practice. With such remarkable additions to our faculty, we expect to continue to advance our position as one of the world's leading professional schools of architecture. We are also completing a search for a tenure-track position in the Visual Arts Program and conducting a search for a junior architectural design teacher. Meanwhile, John Fernandez (in 2007) and Arindam Dutta (in 2008) were tenured. Alexander D'Hooghe and Lawrence Sass were promoted to the rank of associate professor without tenure.

An increased number of subjects addressed the issue of energy and sustainability, such as the advanced graduate studios taught by Kennedy and Andrew Scott and a theory seminar cotaught by Mark Jarzombek and John Fernandez.

Yung Ho Chang held a series of "green curriculum" meetings with participants from different discipline groups with the intention of making the design curriculum more responsive to climate change.

The Committee on Graduate Students (COGS), chaired by Julian Beinart, met regularly regarding policy matters that crossed or impacted all discipline areas.

The Department made a significant change to its student financial aid system under the leadership of COGS. At the end of their first year, all master's students admitted without financial aid may now compete for a limited number of merit-based half-tuition fellowships for the remainder of their degree program. We continue to provide the opportunity for all continuing master's candidates to apply for a limited number of one-year merit-based full tuition scholarships.

MIT ranked second among US architecture schools' graduate programs in the journal *Design Intelligence*. The ranking was determined through a poll of the country's leading firms and organizations that hire graduates and collectively employ more than 100,000 people, deans and department heads in schools of architecture, and students.

The discussion below is organized by discipline group, followed by individual topics that cross discipline areas.

## **Architectural Design**

#### **Faculty and Staff**

Personnel in Architectural Design were professors Julian Beinart, Yung Ho Chang, Charles Correa (spring), Michael Dennis, Anne Spirn (joint appointment with Department of Urban Studies and Planning [DUSP], on leave, spring), and Jan Wampler; associate professors Mark Goulthorpe, Rahul Mehrotra, Ann Pendleton-Jullian (through October 1, 2007), Andrew Scott, Nader Tehrani, and J. Meejin Yoon; assistant professors Alexander D'Hooghe and Ana Miljacki (effective January 1, 2008); senior lecturers Fernando Domeyko (fall; retirement effective December 31, 2007) and Shun Kanda; professor without tenure (retired) William Porter; principal research associate Reinhard Goethert; lecturers Dan Chen, Douglas Dolezal (spring), Philip Freelon (fall), Simi Hoque (fall), Bill Hubbard, Alan Joslin (fall), Sheila Kennedy (spring), Jeannette Kuo (fall), Joel Lamere, Amanda Lawrence (fall), Rebecca Luther (fall), Nondita Correa-Mehrotra, Paul Paturzo (Independent Activities Period [IAP]), Joel Turkel (fall), and Angela Watson (fall, IAP); and technical instructor Christopher Dewart. Kennedy's appointment as professor of the practice was approved and becomes effective July 1, 2008. D'Hooghe was promoted to associate professor without tenure effective July 1, 2008, and awarded the Class of 1922 Career Development Professorship. Chang served as director of the design faculty.

#### **Program Notes**

Design was rethought in many ways in the past year at MIT. We are providing a clearer and more rigorous structure for the MArch program's core studio sequence. With respect to the advanced graduate design studios, efforts were made to directly address the following contemporary issues in architecture:

- **City.** We are acutely aware of architecture's capability to contribute spatially, physically, and functionally to the shared but divergent social and economic life of communities and cities. Urbanism, or the architecture of the city, should fulfill the need for social interaction and identity of inhabitants of places, in particular enhancing their ability to participate in the public realm. We understand the impact of buildings and cities as material and experiential extensions of the land. We thus pay particular attention to the effects of designed environments on natural systems, and vice versa, and to serve these ends we do not draw lines between the fields of architecture, urbanism, and landscape.
- Culture. While the fundamental agenda of architecture is still centered on the organization and experience of space, materials, tectonics, and light, it is crucial to comprehend the cultural diversity created by different localities within the context of globalization. We seek strategies that preserve the legacy of artifacts and customs from the past while addressing the pressures and opportunities of the present. For us, every site is always unique.
- Environment. We are very much concerned with climate change, energy, and conservation of natural resources in general and believe it is possible to design buildings, urban spaces, and cities that are sustainable and that foster healthier lifestyles. In addressing environmental issues, we, as architects and urban designers, must learn to take interdisciplinary collaboration to a higher level.
- Technology. The possibilities for architecture to engage digital technology reach far beyond form making. The computer's data processing capability has enabled us to think effectively about complex problems such as city design and climate change. Technologies in other areas, especially in the material and construction industries, have also been changing not only how we build but how we design and how we live. The integration of technological components in architectural design is therefore of paramount importance.

Opportunities for international travel are a continuing strength of the Department. Destinations included Bratislava (Beinart, John de Monchaux), Thailand and Turkey (Wampler), South Korea (Tehrani), Shanghai (Stanford Anderson), and Mexico City (Hoque and Nondita Correa Mehrotra). Kanda again offered summer opportunities in the 14th MIT Japan Studio and the 4th Veneto Experience in Italy. In addition, students can apply for individual travel grants.

Studios and workshops also traveled to local and regional sites within the United States related to their topics, including New Orleans, LA (Scott); New Bedford, MA (Yoon); Rockport, MA, and Boston's North End (Wampler, Joslin); New York City (Eric Howeler); and Albany, NY (D'Hooghe).

Notable accomplishments in 2007–2008 included the following.

A design faculty retreat in October 2007 served as a major discussion about the MArch curriculum and MIT's position in architectural education in the world.

Tehrani was appointed chair of the MArch curriculum committee and, leading a team of design faculty, embarked on the implementation of a new core design curriculum for the MArch program. The first three MArch semesters now involve an integrated and comprehensive sequence with an emphasis on materiality of architecture and basic design skills.

A new free-hand drawing subject was added to the first year of the MArch curriculum to further develop students' visualization skills.

Another new subject, 4.297 Precedent Analysis, was initiated to teach incoming students how to look at and think about buildings.

The content of the first-year skill subject was further integrated into the design studio.

Goulthorpe organized a lecture series for the design faculty, "Homegrown (with Mustard)," that showcased the work of the architects on our faculty and generated stimulating conversations between faculty and colleagues from other architecture schools who served as invited commentators.

The departmental lecture series addressed the themes of "What City?" in the fall and "Global Practice" in the spring.

To enhance the design culture within the Department, the final studio review schedule was moved to two weeks prior to the final examination week; the move received positive feedback from the faculty and the students in general.

Effective in the 2007–2008 academic year, MArch students can complete a directed thesis within a studio under the recommendation of their thesis preparation professor. A majority of MArch students will still pursue independent theses.

## **Faculty Activities and Achievements**

Architectural Design faculty members who also practice as architects include Beinart, Chang, Correa, Dennis, D'Hooghe, Domeyko, Goulthorpe, Kanda, Mehrotra, Miljacki, Porter, Adèle Naudé Santos, Scott, Tehrani, Wampler, and Yoon. Faculty members lectured widely and served as guest critics and jurors. Chang was named a distinguished alumnus of the University of California, Berkeley. His work was published widely; exhibitions were on view in Hong Kong, Turin, Paris, Barcelona, and London. D'Hooghe exhibited at biennales in Rotterdam (taking third prize with his students) and Hong Kong/Shenzhen; organized a research group, Platform for a Permanent Modernity, to investigate architectural urbanism; and won the 2007 Bemis Housing Award.

Goethert received a substantial grant from the Alumni Class Funds to develop an experimental subject for undergraduates intended to build awareness of the Third World urban explosion, and he conducted a hands-on design-build project in El Salvador with students from both the Department of Architecture and DUSP. Hubbard completed his book *American Boundaries: The Nation, the State, the Rectangular Survey,* to be released by the University of Chicago Press in September. Kennedy's work was represented in the Museum of Modern Art's Design and the Elastic Mind exhibition. Spirn won a Guggenheim Fellowship and her book, *Daring to Look: Dorothea Lange's Photographs and Reports from the Field,* was published by the University of Chicago Press. Miljacki won a 2008 Young Architects Award from New York's Architectural League.

Tehrani was a 2007 United States Artists Target Fellow. Also, he won a Cooper Hewitt National Design Award and an American Institute of Architects (AIA) Housing Award for his Macallen Building Project. His work was exhibited at the Hong Kong/ Shenzhen Biennale, at Peking Fine Arts in Beijing, and at the Institute of Contemporary Art, Boston. Yoon won numerous awards, including the Athena Rhode Island School of Design/Target Emerging Designer Award, the Association of Collegiate Schools of Architecture (ACSA) Faculty Design Award, an *Architectural Record* Design Vanguard award, Boston Society of Architects Honor Awards (for two projects), and a *Residential Architect* magazine Merit Award. She received a grant from the Graham Foundation for the Arts for a design publication titled "Unsolicited Small Projects for the Big Dig." Her work was exhibited at the National Art Center, Tokyo; Somerset House, London; the Institute of Contemporary Art, Boston; and the Contemporary Arts Museum, Houston.

### **Admissions**

Students in our professional MArch degree program are admitted at two levels: Level 1 for those whose undergraduate background is in another area of study, and Level 2 for those who come from undergraduate programs in architecture and thus receive one year of advanced standing in our 3.5-year graduate program. Results for Level 1 were 206 applications, 47 admitted, 24 targeted, and 19 enrolled. Results for Level 2 were 163 applications, 27 admitted, 10 targeted, and 4 enrolled. Results for SMArchS were 130 applications, 49 admitted, 25 targeted, and 25 enrolled. Analysis of the admissions process for 2008–2009 showed that 2007–2008 had been an unusually low-yield year.

# **Building Technology**

## **Faculty and Staff**

Personnel in BT were professors Leon Glicksman and Leslie Norford; associate professors John Fernandez, John Ochsendorf (on leave), and Andrew Scott; assistant professor Marilyne Andersen; and lecturers Patrick McCafferty (spring) and Carl Rosenberg (spring). Andersen was selected to hold the Mitsui career development chair for three years beginning July 1, 2008. Glicksman served as director of the group. Norford continued to serve as associate head of the Department.

### **Program Notes**

BT's teaching continued to support the education of professional architects, graduate students in building technology and engineering disciplines, and MIT undergraduates. The group's major activities in research focused on advanced technologies for sustainable buildings and development of design tools for architects. BT faculty are involved in the Institute's Energy Initiative in various capacities. The program as a whole is involved in the Institute's major initiatives in Portugal, Abu Dhabi, and Singapore. The BT lecture series featured Jelena Srebric, Dan Arons, Matt Franks, and Detlef Westphalen. Srebric and Arons are former BT students who have distinguished careers in academia (Srebric) and practice (Arons).

## **Faculty Activities and Achievements**

Andersen taught a 2008 IAP studio competition sponsored by Velux and published journal articles on the HelioDome, LightSolve, and D-LITE projects. She received a Junior Faculty Ignition Grant from the MIT Energy Initiative for HelioDome and D-LITE. Glicksman continued as a member of the Energy Council of the MIT Energy Initiative. He was cochair of the MIT Campus Energy Task Force (also known as "Walk the Talk"), which seeks to reduce energy use and carbon creation and includes behavioral change initiatives, an energy savings study of chemistry lab fume hoods, and demonstration projects involving infrastructure renewal. He was the recipient of this year's American Society of Heating, Refrigerating and Air-Conditioning Engineers Distinguished Service Award. With Fernandez and as part of the MIT-Portugal Program, he continued research into urban and building energy efficiency. Fernandez cotaught 4.001J/11.004J CityScope, the innovative undergraduate subject now in its second year, with J. Philip Thompson of DUSP. Fernandez also accepted the role of manager of the Department's preparations for reaccreditation of the MArch program by the National Architectural Accrediting Board.

Glicksman and Norford carried out research on the Abu Dhabi Masdar project to develop energy-efficient air conditioning systems and design tools as well as to plan a monitoring program for the initial phase of construction. Norford worked on the MIT-Singapore Program and studied the heat island influence of a built-up environment. He was the School of Architecture and Planning's representative on the provost's Race Initiative Committee. Ochsendorf completed a one-year study leave in Italy as the first engineer to be awarded the Rome Prize in the 113-year history of the American Academy in Rome.

## History, Theory, and Criticism

## **Faculty and Staff**

Personnel in HTC were professors Stanford Anderson, Mark Jarzombek, Caroline Jones, and Nasser Rabbat (on leave); associate professors Arindam Dutta and David Friedman; visiting associate professors Nebahat Avcioglu (fall) and Michael Orwicz (fall); and lecturers Christy Anderson (spring), Irvin Schick (fall), and Nada Shabout (spring). Dutta was promoted to associate professor with tenure effective July 1, 2008. Jones served as director of the group. Jarzombek completed the first of a two-year appointment as associate dean; he focused on consolidating the school's arts offerings and their integration into the larger MIT academic community and assisting in the development of

a strategy for the school's diversity efforts. A search for an open rank position in the Aga Khan Program for Islamic Architecture resulted in the appointment of James Wescoat as Aga Khan professor, and a search for a junior art historian resulted in the appointment of Kristel Smentek as an assistant professor (both effective July 1, 2008).

#### **Program Notes**

As incoming director, Jones aimed to maintain continuity with the directorship of Jarzombek while working with colleagues to begin crafting a five-year plan for HTC. This plan, to be submitted in the fall, will include proposals for development and fundraising to address HTC's goal to remain competitive by attracting the most outstanding students in the face of pressure from peer institutions, including increasing lines for PhD students. For example, raising funds to provide consistent support for summer research and language study emerged as a top priority to keep HTC competitive, and long-term fundraising efforts were successful this spring as a generous gift honoring frequent HTC visiting faculty members Nancy Stieber and Helene Lipstadt established a fund to support scholarly seminars. The plan will review undergraduate degree program requirements for the HTC discipline stream as well as subjects and content serving the wider MIT undergraduate community.

HTC believes that its best recruiting takes place on-site, with prospective applicants meeting students and gaining a sense of the atmosphere of interdisciplinary excitement, collaboration, and collegiality that the program works hard to maintain. HTC continued to support such close collaboration with colleagues in design, with a special focus on the MArch program. For example, HTC doctoral students served as teaching assistants for MArch subjects and the HTC-student-run research in progress conference included many more presentations from design students than in previous years, pairing MIT students with those from the Harvard Graduate School of Design and with faculty commentators from both programs.

HTC hosted a visiting scholar, Jian Tang, from the Dalian University of Technology in China. Though the exchange program with Fondazione Scuola di Studi Avanzati-Venezia, now in its fifth year, usually brings one student to MIT, this year no one from Venice was able to come.

HTC graduated five PhD students and three SMArchS students this year. In the spring 2008 admissions cycle, HTC received 49 PhD applications, admitted 7 students, and enrolled 4 students; the program received 21 SMArchS applications, admitted 6 students, and enrolled 3 students.

A document on the progress of the PhD program was developed, finalized, and distributed in fall 2007 to complement the existing PhD guidelines document and tracking charts previously developed. HTC students continued to achieve unparalleled success in attracting external fellowship support, conservatively estimated at more than \$200,000 collectively. HTC maintains a website at http://architecture.mit.edu/htc/.

### **Program Activities**

The HTC forum lecture series is a student-run program. Speakers in the fall were Jérome Game, Meredith Martin, and James Ackerman; in the spring, the forum hosted Gwendolyn Wright. The student-run HTC film series was suspended for this year. The interdisciplinary graduate student conference "research in progress," sponsored by HTC through an MIT Graduate Student Life Grant, was a two-day event that featured six HTC students among others. The art history lecture series was organized around the theme "Europe and Its Ragged Edges," and it featured lectures by five candidates for the junior art historian faculty position.

## **Faculty Activities and Achievements**

HTC faculty contributed notably to their fields worldwide through lectures at universities and conferences, advisory and external visiting committee memberships, board memberships, interviews, and research and publications, including essays and book chapters, conference proceedings, exhibition catalogs, refereed journals, and the general press. Among these many activities and accomplishments, Anderson was invited to serve the British government as the sole international "Architecture" panel member in the 2008 Research Assessment Exercise established to review all UK academic research in this subject; Dutta contributed the foundational essay for the new journal *Design and Culture*; Jarzombek's *Global Architecture* and Jones' *Sensorium* each went into second printings; Rabbat published books in three different countries and two different languages (see also the Aga Khan Program section below); and Friedman edited a publication on the "Arnolfo's Moment" conference.

#### **Visual Arts**

## **Faculty and Staff**

Personnel listed in the Visual Arts Program (VAP) were professors Joan Jonas and Krzysztof Wodiczko (on leave); associate professors Ute Meta Bauer and Wendy Jacob; lecturers Andrea Frank (photography), Amber Frid-Jimenez (spring), Joseph Gibbons (video), Jae Rhim Lee, and Joe Zane (foundations); visiting professor Antoni Muntadas (spring); and visiting associate professor Regina Moeller (fall). Bauer is also director of VAP. A faculty search identified a finalist who will be reviewed for an appointment as an associate professor without tenure during the 2008 fall term.

#### **Program Notes**

VAP supports the undergraduate education curriculum of the Institute, offering Humanities, Arts, and Social Sciences Distribution (HASS-D) and HASS Elective (HASS-E) subjects and a concentration in visual arts, along with the Department's bachelor of science in art and design and core MArch degree programs. It conducts a master of science in visual studies (SMVisS) degree program that addresses the relation of artistic practice to new media, performance, architecture, urbanism, and related questions of sociopolitical content. Led by associate dean Mark Jarzombek, discussions continued about the fusion of VAP with the Center for Advanced Visual Studies to allow combined research and educational ventures in the visual arts.

### **Enrollment**

While VAP enrollment remained approximately the same in AY2008 as in AY2007 (264 this year, compared to 280 last year), the composition of graduate versus undergraduate students changed notably. Graduate student enrollment increased by 38% and undergraduate enrollment decreased by 29%. The loss of undergraduates was most likely due to students enrolling in subjects in one of the several new and attractive bachelor of arts streams recently added in Comparative Media Studies instead of VAP's offerings. VAP sees a future search for a vibrant junior faculty member as an important opportunity to develop a more specific and architecture-independent BA stream in the visual arts. Within the degree programs offered by VAP, three students are undergraduate majors and eight are concentrators, with seven additional proposed concentrators. Of the 10 SMVisS students this year, two graduated and three others will complete their studies over the summer. VAP decided to admit four new graduate students to begin in September 2008. For the first time, a Presidential Fellowship was awarded to an SMVisS candidate.

### **Curriculum/Transdisciplinary Studies**

VAP does not offer a master of arts or master of fine arts. VAP is the only program in the United States (as far as we know) to offer an SMVisS degree. A VAP education equips students with the ability to approach challenges in diverse scientific fields through the arts. A main focus of VAP subjects is "understanding the problem in its complexity" before "solving the problem." This is a very different curricular approach than that of a traditional MA degree. VAP wishes further to mentor students with the goal of developing research combined with teaching in the field of visual studies and arts. This year VAP revised its graduate curriculum and a thesis tutorial to strengthen the written part of the thesis.

New subjects were introduced to support student skills in visual literacy and communication by developing online participatory platforms, and an effort was made to combine topics and input from various MIT research fields and schools into transdisciplinary studies; feedback from both graduate and undergraduate students was positive. New subjects included Art Work-Out: Visual Arts in the Gym (offered jointly as 4.031 Introduction to Visual Arts and 4.341 Introduction to Photo and Related Media), taught by Jacob and Frank in collaboration with MIT's Athletic Center and accompanied by its own successful lecture series with speakers from inside and outside the MIT community, and 4.371 Research as Artisitic Practice: Zones of Emergency: The FEMA Trailer Project, taught by alumna Lee and intended to foster transdisciplinary research and hands-on project work. In April, a Federal Emergency Management Agency (FEMA) trailer arrived at MIT. Plans are under way to enhance the FEMA trailer to create an example for possible future use and to donate it to a community organization at the end of the course and the 2009 IAP. This pilot project calls for multidisciplinary research and seeks proposals on how to make use of the vast number of surplus FEMA trailers used by evacuees in the aftermath of Hurricane Katrina.

Travel was integral to several VAP subjects. Public art students traveled to São Paulo, and there were field trips to Seattle, New York City, sites related to the FEMA trailer project in New Hampshire and Massachusetts, and local museums and exhibitions. It

is important for VAP to find ways to communicate our unique approach to prospective students and to MIT and the larger community.

#### **Outreach**

The biggest arenas for program growth were in creating new visual arts subjects and engaging in outreach to new audiences. The Monday Night@VAP lecture series ("Give Me Shelter" in fall 2007 and "Zones of Emergency" in spring 2008) attracted a substantial number of visitors. Videos of the spring lectures were made available online at <a href="http://www.zonesofemergency.net">http://www.zonesofemergency.net</a>, and were seen by more than 1,400 viewers at the time of this report. In May, SMVisS students presented their work at a two-day public exhibition titled Articulare.

#### **Facilities**

A new lab for audio production was set up in Building N51 to allow students to experiment in sound art. The sound lab, along with essential additional or replacement equipment, was generously funded by the dean. VAP activities were impacted by various construction and renovation projects related to the building in which it is housed.

#### **Collaborative Activities**

This year, we participated in collaborations with other departments and offices (the Office of the Arts; the Artist-in-Residence Program; the Program in Science, Technology, and Society; the Center for International Studies; and the Center for Advanced Visual Studies), as well as Harvard faculty members, in curriculum and lecture series offerings. In the fall, VAP presented a workshop on "The Role and the Potential of the Visual Arts and Artistic Education at MIT" led by Jarzombek and Bauer and initiated by Lori Gross, director of the MIT Arts Initiative.

VAP maintains a web page at http://web.mit.edu/vap.

### **Faculty Activities and Achievements**

VAP faculty contributed to major global arts events (such as international biennales), had major solo exhibitions, and were featured prominently in international art magazines and daily newspapers inside and outside the US. Bauer was nominated as an international advisor for the Third Yokohama Triennial (2008) and as a scientific advisor for the newly established LABoral Center for Art and Industrial Creation in Gijón, Spain. Jacob, with Frank, received an Alumni Funds grant for the proposed introductory studio subject Art Work-Out: Visual Arts in the Gym. Jonas received an honorary doctorate from the San Francisco Art Institute in recognition of her outstanding contributions to contemporary art, culture, and thought. Wodiczko received an honorary doctorate from the Academy of Fine Arts in Poznan, Poland. Zane received the Best Show of an Emerging Artist Award from the Boston chapter of the International Art Critics and Curators Association.

# **Computation**

## **Faculty and Staff**

Personnel in the Computation discipline group were professors Terry Knight, William Mitchell, and George Stiny; associate professor Takehiko Nagakura (on leave, spring); assistant professor Larry Sass; professor without tenure (retired) William Porter; principal research scientist Kent Larson; research scientist Stephen Intille; and lecturers Sotirios Kotsopoulos (spring), Marta Malé-Alemany (spring), Dennis Shelden (spring), and Joel Turkel (fall). Sass was promoted to associate professor without tenure effective July 1, 2008. Nagakura served as director of the group in the fall; Knight served as director in the spring.

## **Program Notes**

The group's research and teaching are focused on areas situated at the intersection of architectural design, computer applications, and computational theory in design representation, synthesis, and construction, with consideration for the broader cultural and societal impacts of digital technologies on built form at all scales. The Computation undergraduate stream was approved for fall 2008. This new concentration exposes students to the many facets of the rapidly changing and increasingly important area of computational design. The objectives are to prepare students to pursue diverse career paths or further education in multiple areas of design and to enable them to take advantage of emerging opportunities in industry and academia. Required subjects encompass three central aspects of design—visualization (2D and 3D modeling, lighting, color, simulation, animation), construction (physical, full-scale fabrication), and synthesis (generative and parametric techniques for designing)—as well as fundamentals of computer programming for design. The Computation lecture series hosted speakers from academia and industry worldwide: Kostas Terzidis, Xiaohua Sun, Stylianos Dritsas, Phil Bernstein, Hanif Kara, William Fawcett, Alise Upitis, Sawako Kaijima, Aaron Sprecher, Charles Eastman, Marc Simmons, and Marta Male-Alemany.

#### **Faculty and Staff Activities and Research**

Knight and Sass received a National Science Foundation grant for "Visual-Physical Design Grammars" to explore the integration of shape grammars for languages of forms with digital fabrication for physical assembly systems. Sass was selected as one of five architects to design and build a house for the forthcoming exhibit at the Museum of Modern Art, Home Delivery: Fabricating the Modern Dwelling.

### **Undergraduate Program**

Undergraduate officer Leslie Norford, director of the Undergraduate Architectural Design Program Jan Wampler, and administrator for academic programs Renée Caso continued to support and strengthen the undergraduate experience. In response to the changing needs of students, the demands of the profession, and a desire for greater intellectual rigor, curriculum improvements to all four of the existing SB in art and design discipline streams (architectural design, BT, visual arts, and HTC) were proposed and approved by the Committee on Curricula. In addition, professor of design and computation Terry Knight spearheaded a new discipline stream in the area

of computation. To maintain consistency within the undergraduate programs, similar changes were made to the unspecified SB (Course 4-B).

In response to the desire for greater intellectual rigor and independent thinking, all of the degree programs except for architectural design will now require a thesis and a thesis preparation class, increasing the total number of units required for the degree from 183 to 192. In architectural design, theses are optional but encouraged with the addition of a thesis preparation subject. The architectural design stream has added a new studio to the required sequence, 4.112 Integrated Architecture Design Studio, bringing the total number of studios required to six. In addition, a new subject in contemporary architecture—4.205 Analysis of Contemporary Architecture, taught from the design perspective—has been included. The new curriculum will become effective for the class of 2012.

Undergraduates continue to be encouraged to participate in a variety of international experiences offered by the Department. Our first three students were chosen for the architecture design exchange program with Hong Kong University (HKU); Suhni Chung, Shani Cho, and Joanna Rodriguez-Noyola will spend the fall term of their senior year studying architecture design at HKU. Students in 4.001J/11.004J CityScope, led by associate professors John Fernandez and J. Philip Thompson (DUSP), traveled to Peru to address a shortlist of issues critical to the reconstruction of Peruvian cities recently affected by devastating earthquakes. Students from Wampler's 4.170 International Workshop for Undergraduates traveled to Resadiye, Turkey, to redesign a portion of the center of this small town near the Black Sea. Students in 4.116 Advanced Architecture Design Studio, led by lecturers Simi Hoque and Nondita Correa Mehrotra, traveled to Mexico City with seniors in the final design studio. Finally, the 4.180 Veneto Experience undergraduate workshop, led by senior lecturer Shun Kanda, focused on the work of Veneto architect Carlo Scarpa through extensive fieldwork in and around Venice, Italy.

In August, the Department participated in the Freshman Pre-Orientation Program by offering "Discover Architecture," a three-day program of fun exploration for incoming freshmen. The program included a sandcastle competition and clam bake on Crane's Beach in Ipswich, faculty presentations on current research, a tour of newly constructed buildings in Boston, and a tower building competition using recycling materials. Eighteen freshmen participated. The program was led by lecturer and alumna Angela Watson.

The Department sponsored a number of activities for undergraduates or their parents, including Wampler's talk and reception at Family Weekend, an open house for freshmen and prefreshmen, a new-major orientation program, and senior thesis presentations.

The first annual Design/Build Competition, an open competition for undergraduates of all levels to submit a sculpture design to a faculty panel, was held in April. The chosen design will be built by the winning team on the MIT campus.

The student-run, Department-supported undergraduate organization Course 4 Resource Council (4RC), in collaboration with Wampler, initiated a Department graduate to undergraduate mentoring program to help integrate the two groups of students

academically and socially. Shu Wang and Christopher Fematt cochaired 4RC and were undergraduate student representatives on the Architecture Student Council.

Wampler organized "Careers in Architecture," a lecture series featuring Department of Architecture alumni that seeks to introduce interested undergraduates to the diversity of career options in architecture.

A publication highlighting the undergraduate design faculty's insights into teaching design to the undergraduate community was conceived by Wampler and completed during the summer of 2007. *Conversations of Design: Essays by the Undergraduate Architecture Faculty* is a compilation of essays highlighting individual student projects as a means of explaining pedagogical approaches. A second publication of student work and essays was begun, with an anticipated publication date of September 2008. Wampler was nominated for the AIA/ACSA Topaz Medallion for Excellence in Architectural Education.

Faculty members who served as undergraduate advisors, in addition to Norford and Wampler, were Marilyne Andersen, Arindam Dutta, John Fernandez, Andrea Frank, Leon Glicksman, Bill Hubbard, Wendy Jacob, Terry Knight, John Ochsendorf (on leave), Larry Sass, Anne Spirn (on leave, spring), and George Stiny. Fourteen sophomores entered the Department in AY2008, joining 14 juniors and 22 seniors to bring the total number of undergraduate majors to 50.

## **Master of Science in Architecture Studies Program**

The SMArchS program is a two-year postprofessional degree program currently offering specializations in five disciplines: Aga Khan Program for Islamic Architecture; architecture and urbanism; building technology; design and computation; and history, theory and criticism of architecture and art. Rahul Mehrotra was appointed director of the SMArchS program and cochair (with Terry Knight) of the SMArchS committee; the committee's members were Marilyne Andersen, Stanford Anderson, Julian Beinart, Alexander D'Hooghe, Mark Goulthorpe, Takehiko Nagakura, and Cynthia Stewart (ex officio). The program's agenda was set around the quest to make the different discipline groups in the SMArchS program intersect, interact, and engage more meaningfully with each other. The SMArchS committee met as a group and Mehrotra met with faculty individually as well, and the following evolved from these collective discussions:

- The need to reinvent and energize the Faculty Colloquium, the only required course in which SMArchS students from all discipline groups participate.
   This could be a great starting point in creating networks between students as well as faculty from the different discipline groups. Mehrotra will coteach the colloquium with senior faculty member Beinart, with the goal of developing a template that can then be carried forward every year.
- The need to hold regularly scheduled meetings (at least one per term)
  for students from both years. The focused work within discipline groups
  discourages or rather does not easily facilitate interactions between students
  from the different groups. These meetings would be in the form of social events
  as well as academic platforms such as the Faculty Colloquium. The first meeting

with students was held in early March, and the next one is scheduled for the first week of September.

- The need to rework the perception of the SMArchS program among students potentially applying to MIT's Department of Architecture. We will study the website and revise the literature on SMArchS to reflect its strengths and uniqueness more sharply. An open house for SMArchS students will be organized twice a year with greater engagement of SMArchS faculty.
- A consensus to reopen discussions about the advanced design stream jointly with the design faculty. This seems to be an opportune moment with a critical mass of new hires in the design faculty to also leverage the strengths of MIT as a design school.

## **Aga Khan Program for Islamic Architecture**

The Aga Khan Program for Islamic Architecture (AKPIA) at MIT, established in 1979, is a leading program in the study of architecture in the Islamic world. Its outreach activities include a lecture series, a travel grant program open to all students in the School of Architecture and Planning, and a visiting postdoctoral program. Faculty and staff, listed in the Department under the History, Theory, and Criticism Program, were Professor Nasser Rabbat (on leave), director of the program; visiting associate professor Nebahat Avcioglu (fall); and lecturers Irving Schick (fall) and Nada Shabout (spring). In 2007–2008, the program numbered six PhD and five SMArchS students. As mentioned, a search for an open rank position in the Aga Khan Program resulted in the appointment of James Wescoat as Aga Khan professor, effective July 1, 2008.

### **Program Activities**

AKPIA admitted two new PhD student and two SMArchS students and graduated two SMArchS students. The program hosted three postdoctoral fellows: Hanaa Mohamed Adly Hassan, Stefan Heidemann, and Nadeem Omar Tarar. The lecture series featured Nebahat Avcioglu, Azra Aksamija, and Mercedes Volait in the fall and Stephen Sheehi, Ursula Biemann, and Nada Shabout in the spring.

#### **Faculty Activities**

While on sabbatical for the academic year, Rabbat was a scholar-in-residence at the American Research Center in Egypt, a research associate at the Institut Française d'Archéologie Orientale in Cairo, and (during the spring) Allianz Guest Professor at Ludwig-Maximilians University in Munich. He published book reviews in the *Journal of the Society of Architectural Historians* and a response to Avcioglu in *Cultural Analysis* 6. He organized or moderated Aga Khan Award for Architecture seminars in Lisbon, Damascus, Bahrain, and Alexandria in addition to lecturing widely.

## **Department of Architecture Enrollments**

As of October 2007, Course 4 counted a total of 274 students: 50 undergraduates, 95 MArch students, 45 SMArchS students, 2 SMBT students, 10 SMVisS students, 39 resident PhD students, 13 nonresident PhD students, 19 Center for Real Estate students,

and 1 special (nondegree) student. In addition to the 274 students counted above, 5 SMArchS dual degree students were registered in the Department of Urban Studies and Planning as their home department in October 2007 and 1 SMBT student was counted in the Engineering Systems Division/Technology and Policy Program.

## **Across the Department**

#### **Computer Resources**

In late spring, the Department's Computer Resource Office merged with its equivalent in DUSP under the direction of Duncan Kincaid, allowing both departments to derive greater benefits from shared resources while continuing to serve their own particular needs.

#### **Lectures**

In the fall, the Architecture Lecture Series was organized around the theme "What City?" Speakers were Lars Lerup, Ackbar Abbas, Hou Hanru, Saskia Sassen, Momoyo Kaijima, Vicente Guallart, Margaret Crawford, Franz Oswald, and Arata Isozaki. In the spring, the theme was "Global Practice." Speakers were Dan Graham, Seung H-Sang, Frank Barkow, and Hailim Suh. As part of the series, Scott Cohen, Yung Ho Chang, Anu Mathur, Nader Tehrani, and Alexander D'Hooghe talked about their international practices in an evening of "Shop Talk." Kengo Kuma presented the 20th Arthur H. Schein Memorial Lecture; Juan Herreros presented the 15th Pietro Belluschi Lecture; and Werner Sobek presented the 2nd Goldstein Architecture, Engineering, and Science Lecture. Lecture series open to the public also were sponsored by the BT, Visual Arts, HTC, Computation, Undergraduate, and Aga Khan programs.

#### **Exhibitions**

The Department supported exhibitions on architecture organized by the MIT Museum for the Wolk Gallery by sharing publicity efforts or offering associated lectures, including "The Beijing Urban Design Studio: 20 Years of International Collaboration" (April–September 2007) and "Between Spaces: A Project by Wendy Jacob." Student and faculty work continued to be featured on the School's PLAZmA screens and on four dedicated PLAZmA screens programmed by the Department.

#### **Publications**

*Thresholds*, a journal edited and produced by students, is noted for developing diverse architectural themes in each issue. The theme for issue number 33 was "Formalism," and the theme for issue number 34 was "Portability." An ad hoc committee (with Chang, Jarzombek, Jones, Miljacki, and Norford as members) began meeting to evaluate the possibility of upgrading *Thresholds*.

#### **Architecture Student Council**

The ASC served as a vehicle for student activity in both academic and social areas. In particular, the council offered invaluable support for fall and spring open houses by contributing to programming efforts, providing tours, and organizing student panel discussions and a lunch with prospective students. It held town hall meetings at the beginning of each term, sponsored a successful T-shirt contest, and arranged for biweekly

or triweekly happy hours offering on-campus opportunities for relaxation and informal get-togethers. 2007–2008 ASC officers were Ian Kaminski-Coughlin, president; Arjun Bhat and Lisa Pauli, vice presidents; Erica Weiss, treasurer; and Pam Ritchot, secretary.

## **Student Awards and Fellowships**

The Department of Architecture honored the accomplishments of the following graduate and undergraduate students:

- Alpha Rho Chi Medal for a graduating student for service, leadership, and promise of professional merit: James Shen
- AIA Certificate of Merit: C. Coryn Kempster and Meghan Webster
- AIA Medal for top-ranking graduating MArch student: Reilly Rabitaille
- Tucker-Voss Award in recognition of promise for the future in the general field of building construction: Tucker Quinn
- Marjorie Pierce/Dean William Emerson Fellowship Award for outstanding academic and design achievement by a Level II woman: Weifeng Victoria Lee
- William Everett Chamberlain Prize for achievement in design: Yuliya Bentcheva
- Outstanding Undergraduate Prize for academic and design excellence: Megan Brown
- Francis Ward Chandler Prize for achievement in architectural design: Shirley Shen
- SMArchS Prize for Thesis: Melissa Lo, Joshua Lobel, Christopher Pechacek
- Undergraduate Faculty Design Award: S. Gavin Ruedisueli
- Sidney B. Karofsky '37 Prize for the outstanding MArch student with one further year of study: Charles Curran
- Rosemary D. Grimshaw Award: Thaddeus Jusczk
- Special Recognition Award for Outstanding Service to the Department: Sarah Dunbar
- Imre Halasz Thesis Prize: Alexandra Telecky

Institute and other awards recognized the following students:

- Phi Beta Kappa: S. Gavin Ruedisueli
- AKPIA Travel Grants: Nancy Demerdash, Simon Schleicher
- Harold and Arlene Schnitzer Prize in the Visual Arts: Caitlin Berrigan (first),
   Mary Hale (second), Sabrina Kleinenhammans (tied for third)
- Glenn Murcutt Workshop: Ethan Lacy
- Boit Manuscript Prize: Renee Reder (Poetry, second prize), Sharon Gochenour (Essay, honorable mention)
- Kohn Pedersen Fox Foundation Traveling Fellowship: Hoi Lung Chan

- Marvin E. Goody Award: Edmund Ming-Yip Kwong (spring 2008)
- Kelley-Douglas Summer '08 Traveling Grant: Samuel Kronick
- Public Service Center Grant: Ji-Hye Ham, Tsitsi Gora
- Public Service Fellowship (IAP 2008): Robert Mohr
- Ragnar and Margaret Naess Award: Lori Ferriss
- Schlossman Research Fellows: Caitlin Berrigan, Kenfield Griffith, Stephanie Tuerk
- Takenaka Internship: Aftab Jalia
- William Emerson Travel Award: Priyanka Shah
- Architecture Exchange Program with the University of Hong Kong: Shani E. Cho, Suhni Chung, Joanna Rodriguez-Noyola
- Renzo Piano Internship: Michelle Petersen
- Fontainebleau Architecture Summer Program Alumni Scholarship: Ji-Hye Ham
- SEED magazine Revolutionary Mind for 2008 Award for Design: Neri Oxman
- Krupp Foundation Fellowship: Azra Aksamija
- Charlotte W. Newcombe Doctoral Dissertation Fellowship, Woodrow Wilson National Fellowship Foundation: Fabiola Lopez-Duran
- Dedalus Foundation Award: Fabiola Lopez-Duran
- Kress Foundation Fellowship in the History of Art: Fabiola Lopez-Duran
- Bourse Chateaubriand in the Humanities, Embassy of France and Ministry of Foreign Affairs: Jennifer Ferng
- Institute for Historical Research Mellon Dissertation Fellowship: Jennifer Ferng
- American Council of Learned Societies Dissertation Fellowship: Pamela Karimi
- Scott Opler Grant for Emerging Professionals: Janna Israel
- Society of Architectural Historians: Mechtild Widrich
- Max Planck Institute for the History of Science: Janna Israel
- Princeton University Society of Fellows: Lucia Allais
- Social Science Research Council International Dissertation Research Fellowship: Winnie Gong
- Social Science Research Council Dissertation Proposal Development Fellowship: Alla Vronskaya
- Council on Library and Information Resources Mellon Dissertation Fellowship in the Humanities in Original Sources: Winnie Wong
- American Association of University Women International Fellowship: Tijana Vujosevic
- Mellon Postdoctoral Fellowship, Columbia University: Zeynep Celik

- Mellon Post-Doctoral Fellowship, Carleton College: Melanie Michailidis
- Canada Graduate Fellowship: Nicola Pezolet
- Travel Grant, Stanford University French Department: Nicola Pezolet
- Victorian Society in America Scholarship: Alla Vronskaya
- W. Danforth Compton Memorial Graduate Fellowship: Rebecca Rahmlow
- Gerda Henkel Foundation PhD Scholarship: Tijana Vujosevic

Yung Ho Chang Department Head Professor of Architecture

More information about the Department of Architecture can be found at http://architecture.mit.edu/.