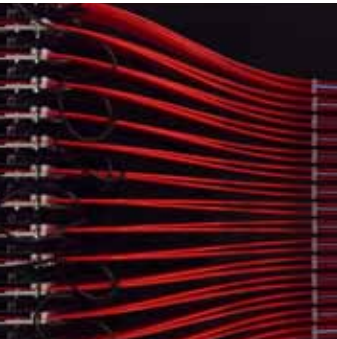


PLAN



DATEBOOK

SUMMER 2014

JUNE 16–18

Beyond Smart Cities. A professional development course for industry and government leaders designed to develop a holistic model for high-performance urban living, based on the concept of 'Compact Urban Cells'.

JUNE 12–JULY 25

A series of two- and three-day courses for real estate practitioners at all levels. All MIT alums receive a 15% discount; all alums of SA+P receive a discount of 25%. (Use code AACRE for the 25% discount when registering; registration deadline is two weeks prior to the course unless otherwise stated and/or the course reaches maximum enrollment.)

JUNE 12–13 *Understanding Real Estate Markets.*

JUNE 16–17 *Mutual Gains Approach to Real Estate Negotiations.*

JUNE 19–20 *Real Estate Finance: Fundamentals.*

JUNE 23–25 *Commercial Real Estate Development.*

JULY 10–11 *Leading with the Right Brain: What does 21st century leadership look like?*

JULY 14–15 *Corporate Real Estate Strategy: Responding to the changing demand for office space.*

JULY 17–18 *Community Relations: Winning community support for land use projects.*

JULY 21–22 *Real Estate Finance: Fundamentals.*

JULY 24–25 *Real Estate Finance: Advanced.*

SAVE THE DATE NOVEMBER 18

Combined Architecture and Planning Connections Event. An opportunity for alumni to learn about the newest initiatives in the school and network with faculty, alumni and current students from architecture, urban studies and planning, and the Center for Real Estate. To ensure timely receipt of information and your invitation, please update your e-mail address at alum.mit.edu.

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(Cover)

Threshold. Mt. Rokko Chapel. Kobe, Japan. July 1990. One of 46 color images featured in 'The Eye Is a Door: Landscape Photographs by Anne Whiston Spirn', on view at the Smith College Museum of Art through August 31. (Photo: Anne Whiston Spirn. All rights reserved.)



At the end of June I will officially end my ten-year term as dean and I would be remiss if I didn't take this opportunity to say what a genuine honor and privilege it has been to be a part of this community.

This school is truly extraordinary. I think it's fair to say that we are distinct from any other school of architecture and planning, anywhere in the world. We are an exploratory culture imbedded in a world-class institution that provides us the opportunity to exchange ideas and inspiration with experts in a vast range of related and seemingly unrelated spheres—opportunities that open our minds to the expanding possibilities of our own endeavors.

Because of this extraordinary capacity, we attract extraordinary students, students who are determined to be at the cutting edge of the future, who want to change the world. And they do. They invent new tools that open new possibilities for people at all levels of society. They push the boundaries of their disciplines and even invent entirely new fields of study. They discover new ways of seeing and understanding. They alter the landscape of our lives. And when they leave us, they go on to establish thriving new businesses and non-profits, and to teach and inspire new generations of students to reach for their dreams.

I may be leaving the dean's office but in no way am I leaving this school. I will be here, watching and learning, teaching and mentoring. But at this moment of transition, I want to thank everyone—faculty, staff, students, alumni and friends—for all your help and support over the past ten years. We have been a good team.

Now onward!

Adèle Naudé Santos

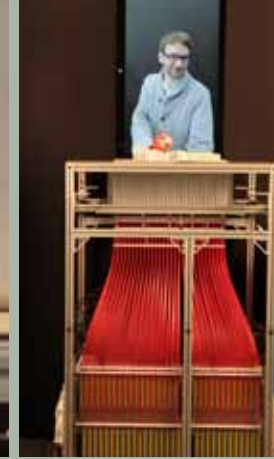
ADÈLE NAUDÉ SANTOS

(A) The device consists of about 900 plastic pegs arranged in a grid, each of which can be raised or lowered to form a three-dimensional shape.

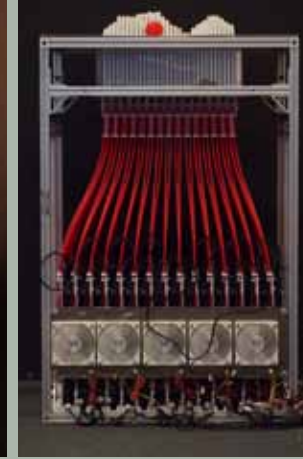
(B) (C) Each peg is connected to a motor controlled by a nearby laptop that can move the pegs to render digital content physically and can also register real-life objects interacting with the pegs' surface.



(A)



(B)



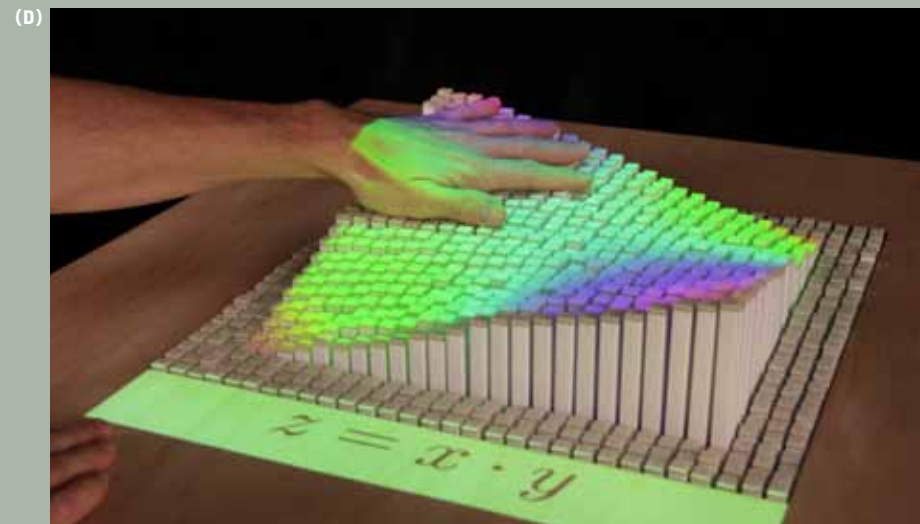
(C)

(D) As you manipulate the shape with your hands, a camera above tracks your movements and transmits that input to the computer, changing the related digital file, so you're interacting with digital content in physical space almost as easily as if you were molding clay.

(E) By embodying digital information in physical space, inFORM returns us to the real world of physical interactions and tactility. (All images: The Tangible Media Group, MIT Media Lab)

HANDS ACROSS THE SEA

AN INVENTION THAT COULD RADICALLY ALTER REMOTE DESIGN COLLABORATION



(D)



(E)

Researchers at SA+P's Media Lab have developed a new technology that would allow architects and planners to view and jointly manipulate 3D models of projects in real time and real space from opposite sides of the globe, then actually shake hands once they reach agreement on the changes. The invention, called inFORM, holds profound implications for the future of remote design collaboration and could be available commercially in as few as 5-10 years.

Created by PhD candidates Daniel Leithinger and Sean Follmer, and overseen by Hiroshi Ishii—director of the Media Lab's Tangible Media Group—the inFORM is essentially a computerized Pinscreen, one of those executive desk toys that allows you to create a 3-D representation of an object by pressing it into a bed of pins.

Using this device, two people Skyping from opposite sides of the globe could physically manipulate a 3D model together—adjusting, tweaking or even radically transforming the digital blueprint with their hands, simultaneously. A designer in Tokyo, for example, could alter a model on her desk while talking with her client in Tangiers; in response, the client in Tangiers could manipulate the model on his desk and the model on the designer's desk in Tokyo would change accordingly.

They could alter the design by manipulating the physical model, by manipulating the digital file, or both. And as the model changes, inFORM could use color projections to show resulting

changes in population density, energy consumption, traffic patterns, etc., instantaneously. The speed of inFORM's responsiveness would allow designers to prototype their 3D designs in the moment, without waiting hours for a 3D print-out. (The online video (vimeo.com/79179138) illustrates the way it works much better than words.)

The inFORM is one interpretation of an interface that can physically transform itself to be whatever it needs to be, paving the way for a world in which we could reconfigure physical matter as easily and quickly as pixels on a screen. And indeed, the Tangible Media Group is working on interfaces that will reconfigure themselves according to their intended use—if you want to take a photo with your cellphone, for instance, it would assume the shape and function of a camera. Or a TV remote control, if that's how you want to use it. The phone could pulsate when it rings and change into the shape of a landline receiver when you answer. The whole enterprise returns us to the real world of physical interactions and tactility.

The developers are working with urban planners in the Media Lab's Changing Places group to refine their idea from an architecture/urban planning perspective.

For more information on that project, contact the Tangible Media Group at tangible.media.mit.edu/ and/or the Changing Places group at media.mit.edu/research/groups/changing-places.

A NEW APPROACH TO DEVELOPMENT IN LATIN AMERICA

AFFORDABLE HOUSING MEETS SOCIAL CONSCIOUSNESS

Working with mentors at SA+P's Legatum Center for Development and Entrepreneurship, Alba Medina Flores aims to create a prototype of affordable, sustainable mixed-use development using urban planning concepts that promote the efficient use of natural resources and protect the environment.

(Photo: Judith M. Daniels/SA+P)

Alba Medina Flores, a candidate for the MS in Real Estate Development from SA+P's Center for Real Estate, is putting together a business plan that would challenge the traditional approach to real estate development in Latin America, an approach that is currently focused primarily on short-term profits with little consideration of social or environmental concerns.

Working with mentors at SA+P's Legatum Center for Development and Entrepreneurship, she aims to create a prototype of affordable, sustainable mixed-use development using urban planning concepts that promote the efficient use of natural resources and protect the environment.

A key ingredient of the plan is the acquisition of land from local farmers at the periphery of a mid-sized Mexican city by offering them a share in the project's profits. The low cost of land combined with economies of scale in purchasing construction materials makes a promising value proposition while at the same time improving the quality of life for those at the bottom of the pyramid and in the rising middle class.

The development would accommodate about 2000 families in attractive affordable housing at a distance of about half an hour from the urban work center, a move that would allow residents to spend their time and travel money more efficiently while reducing their carbon footprint, and would offer them a strong sense of community engagement.



Medina Flores brings to the project a broad understanding of real estate development in Mexico. As Vice President of the Real Estate Division at Grupo Fame in Mexico, she has coordinated the executive team for several real estate developments and golf courses throughout the country. She led a working group with the urban development team to innovate in the design, marketing, operations and construction of residential clusters and co-lead the authorization process and legal procedures for their land use.

She was particularly involved in the development of Mexico's first public golf course and in the construction and operation of the country's second largest shopping mall. Previously, she was an equity research analyst of infrastructure companies and, at Credit Suisse, an investment banker and private banker. She holds a bachelor's in finance from the Instituto Tecnológico y de Estudios Superiores de Monterrey in Mexico City.

The Legatum Center for Development and Entrepreneurship catalyzes entrepreneurship for broad-based prosperity in low-income countries through programs and events that promote and shape discourse on bottom-up development. The Center administers a competitive fellowship program for MIT students from across all disciplines who have demonstrated the potential and commitment to create innovative and inclusive enterprises in low-income countries.

Other SA+P projects that have recently won Legatum grants include a proposal to develop an eco-resort in Skadar Lake National Park, on the border between Montenegro and Albania; a proposal to assist women waste pickers in India with the development and franchising of small biogas businesses; a proposal to convert household organic waste in Kenya into charcoal, a common fuel in the developing world; a proposal to promote distributed global trade for women in under-served communities through a peer-to-peer marketplace using mobile phones, mobile money transfers and delivery services; a proposal to manufacture and sell business apparel in West Africa; and a proposal to give rural retail shops in India access to 'essential technologies' such as bicycle-powered machines, solar cookers and water filters.

MAPPING THE UNMAPPED

USING CELL PHONES AND SOCIAL MEDIA TO UNDERSTAND THE CITY

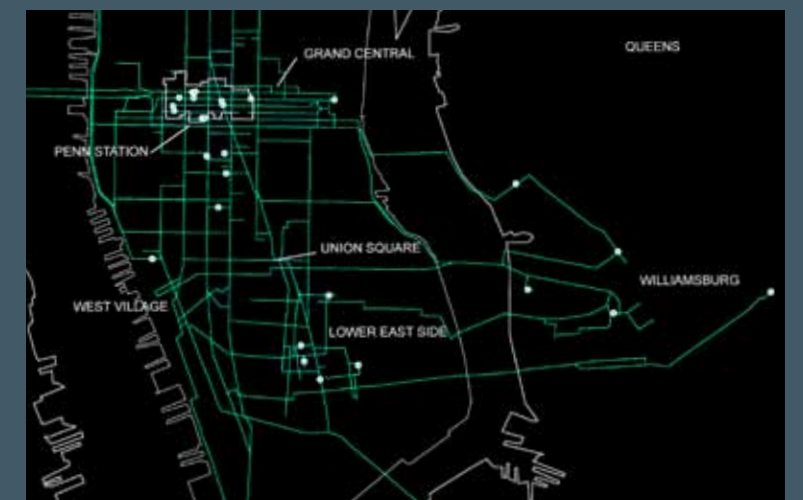
Two recent projects at SA+P highlight the use of cellphones and social media for better understanding urban and economic dynamics. One of the projects mapped workers' movements in Manhattan's Garment District, revealing the continuing economic value of industrial clusters, and another mapped the informal transit system of Nairobi, revealing unanticipated structure in the apparent chaos. Both projects were conducted, in collaboration with others, by SA+P's Civic Data Design Lab, directed by Sarah Williams.

For the New York study, recently published in *PLoS One*, Williams and the research team used the social networking app Foursquare to track in realtime the movements of fashion workers at apparel firms in the metropolitan area over a two-week period. By producing a minute-by-minute account of the industry's inner workings, the effort shed light on the current debate as to whether industrial clusters such as the Garment District remain essential to urban economics.

Industrial clusters have long been shown to offer economic advantages, but some have argued that the rise of telecommuting diminishes the need for physical proximity and that a cluster like the Garment District—an area of prime real estate with protective zoning—should be relocated or even dispersed, especially given the decline of apparel manufacturing in the United States.

The research revealed, however, that 77 percent of all trips made by fashion designers across the region, and 80 percent of business-related trips, were logged within the boundaries of the district, confirming the continuing importance of the district in conducting the industry's business. And the study has larger implications: given the growing return of US manufacturing, the dynamics of industrial districts like this—and the importance of proximity in urban economics, in general—should be of particular interest for rebuilding American cities in decline, such as Detroit and Buffalo.

The study in Nairobi focused on public transportation, an informal transit system consisting of buses called *matatus* that are licensed by the city but run by hundreds of private companies on routes that are vaguely based on a network from 30 years ago. Due to the fact that maps of the actual system have never been developed, residents find it hard to know how best to navigate the city and, more importantly, urban



planners are limited in their ability to manage the system and model traffic flows.

To help people visualize the system, students from the University of Nairobi—partners in the research project—used their cell phones to gather data along all 130 routes in the network. The research revealed that the system is not as chaotic as it seems—there are numbered routes, there are regular stops, there is in fact a system that can be improved upon.

The map of the system has been published in several of Nairobi's major newspapers and downloadable versions have gone viral on Twitter, helping residents navigate the system more efficiently now. One student who worked on the project, in fact, realized for the first time that he could get across town by a better route.

MORE: SAP.MIT.EDU/PLAN

(Top) Sarah Williams works with the University of Nairobi team to put the finishing touches on the digital Matatus paper map, showing Nairobi's Informal Transit System. (Photo: Adam White)

(Bottom) A map showing all the routes taken by all the participants during the two-week Garment District study, illustrating the influence of the industrial cluster. Image produced for the PLOS ONE article courtesy of Sarah Williams and Elizabeth Currid-Halkett)

DEAN ADÈLE NAUDÉ SANTOS STEPS DOWN TENURE MARKED BY ADVANCES IN ART, ACADEMICS AND URBANISM

Among her many academic honors, Santos was recognized with the 2009 Topaz Medallion for Excellence in Architectural Education, given annually by the American Institute of Architects and the Association of Collegiate Schools of Architecture. (Photo: Judith M. Daniels/SA+P)



(A) As part of SA+P's consolidation of space under Santos, the Center for Real Estate moved into new digs in 2012; the new facilities put the Center in closer proximity to others, helping to further the integration of its masters program with graduate education in other departments and schools. (Photo: Copyright John Horner)

(B) In 2012, SA+P's new Media Lab building was awarded the Harleston Parker Medal by the Boston Society of Architects; the intent of the award is to acknowledge Boston's most beautiful piece of architecture. Upon its dedication, *Boston Globe* critic Robert Campbell described it, with slight exaggeration—or perhaps no exaggeration at all—as 'the world's most exquisite building'. (Photo: Copyright Andy Ryan)

In January, Adèle Naudé Santos, dean of SA+P since 2004, announced her decision to step down in June. She will stay on the faculty of both the architecture and planning departments and remain deeply involved with the new Center for Advanced Urbanism while continuing work with her prize-winning architectural practice, Santos-Prescott.

Her tenure as dean has been marked by a notable increase in academic appointments—forty percent of the school's current faculty was hired during her term, 38 percent have been tenured and 55 percent promoted. At the same time, interest in the school's programs has risen dramatically—applications for the MArch and masters in MAS programs have both more than doubled; applications for the SMArchS program have risen by 85 percent and applications for the MCP program have risen by 70 percent.

The school has also been consolidated from a diaspora of six scattered locations to two dense concentrations in the Institute's most visible sites—the Main Group along Massachusetts Avenue and Fumihiko Maki's high-design complex near Kendall Square.

During her administration, Santos played a major role in elevating the arts at MIT. In 2010, she launched a new Program in Art, Culture and Technology (ACT) focused on art as a research practice, the result of a merger between SA+P's academic Visual Arts Program and its legendary Center for Advanced Visual Studies, a research program in visual arts established in 1967.

The following year, she took a leading role in MIT's Festival of Art, Science and Technology, a high-profile part of the Institute's sesquicentennial celebration that featured a series of architectural installations created by SA+P faculty and students popping up around the campus throughout the spring semester.

She was also instrumental in the establishment of MIT's new Center for Art, Science and Technology in 2012, a joint initiative with the Office of the Provost and the School of Humanities, Arts and Social Sciences, designed to advance MIT's leadership in integrating exploration in the arts with scientific and technological inquiry.

But her signature achievement was arguably the establishment of SA+P's new Center for Advanced Urbanism in 2013, focused on the planning, design, construction and retrofitting of urban environments for the 21st century. The Center's first major effort, a report produced last fall with the AIA on the state of health and urbanism in the United States, examined a series of public health matters in eight major cities, suggesting an array of possible remedies.

This story is based in part on a report by Nate Nickerson in the MIT News Office.

PARTING COMMENTS FIVE QUESTIONS FOR DEAN SANTOS

What particular challenges do you think your successor is going to face here?

Well honestly, I think I've cleaned up a lot of issues so a lot of the burden that I inherited isn't here anymore. But we've got a big campaign coming up, so fundraising will be a big part of it. And I think we're also going to go through a lot of changes in how we teach, because of MITx and online education. It's really quite thrilling, I think.

What sort of person do you think will be best suited to deal with those challenges?

Looking back over the last 30-plus years, we've always had deans who were aligned with two of our three faculties. There was John de Monchaux, primarily in planning but also with an architecture background. Then there was Bill Mitchell, architecture and Media Lab. And then there was me, with architecture and planning. I think this is a very good model because of the diversity of interests in the school. They're very broad. I mean, we have faculty specializing in everything from prosthetic limbs to music to designing cars, to all the things we do in architectural fabrication, and all our policy people. You really need to be conversant in a lot of areas.

What are you most looking forward to now?

I am a practitioner so I'm looking forward to having more time to design and build. Ten years has been quite a long hiatus. I've continued to work all during this time but now I want to really sink my teeth into it and maybe even redirect the practice. I'm just now finishing a 2000-square-foot infill project in Cambridge.

I had the house fabricated in New Hampshire and shipped to Cambridge, then they brought in a crane and assembled it in just two weeks. I'd never built a house that way before and it was just fun. I'm also just completing a community center in Guatemala with two pools, a gym, all kinds of amenities, with a budget of a million dollars. It would have cost forty times that much in the US.

Was there a particular high point for you in these past ten years?

You know actually pulling off construction of the Media Lab building—that was big. There was a lot at stake in getting that building built, especially because it had stalled. It took me two years of wheeling and dealing to get that started again and the fact that we were able to bring it in on time and under budget was quite remarkable. It's a fabulous building, a landmark, and it will be there for a long time.

What are you going to miss most about this job?

I know what I'm not going to miss. I'll never miss the bureaucratic hassle. But getting to know what's going on at MIT, everything you see. You sit in on all of the promotion and tenure cases going through, so you get to know who is here and the amazing work they are doing, and all of that is absolutely fascinating. You know that you're part of something rather extraordinary. For ten years, I've had a catbird seat on everything that is going on here. That part I will miss.

(C) At the signing to establish the Health and Urbanism Initiative, a research collaboration between SA+P's new Center for Advanced Urbanism (CAU) and the AIA, focused on how design can help improve urban health: AIA VP Paul Mendelsohn; CAU Director Alexander D'Hooghe; AIA CEO Robert Ivy; Adèle Santos; Alan Berger and Andrew Scott, co-leaders of the Initiative. (Photo: Judith M. Daniels/SA+P)

(D) From *FAST Light*, the culminating event of MIT's Festival of Art, Science and Technology: SKY Event by Otto Piene, Director Emeritus of SA+P's Center for Advanced Visual Studies—immense inflatables rising above the Institute's Killian Court. (Photo: Copyright Andy Ryan)





(A)



(B)



(C)

TOWARD A WIDER VIEW OF ARCHITECTURAL HISTORY

A \$1M GRANT TO CREATE A GLOBAL TEACHING COLLABORATIVE

The Andrew W. Mellon Foundation has awarded MIT's School of Architecture + Planning a \$1M grant to help create a Global Architectural History Teaching Collaborative.

Headed at MIT by SA+P's Mark Jarzombek, Associate Dean and Professor of the History and Theory of Architecture, the Collaborative will consist of scholars who will produce classroom materials for teachers and professors in charge of architectural history at the undergraduate or survey level. The materials will be made available worldwide, free of cost, online.

The effort is a response to new requirements from the National Architectural Accrediting Board (NAAB), which call for instruction in the history of architecture to include non-Western material. As a result, teachers of architectural survey courses—usually taught at either the Bachelor's and/or Master's levels—are struggling to figure out how best to fulfill this requirement.

Most who currently teach architectural history are well versed in Western history and rely on a largely Eurocentric approach, organizing material by national-based or style-based categories such as 'Italian', 'French', 'Chinese' and 'The Renaissance'. Indeed, among the 140 or so schools of architecture, about 50% still only teach the Western Tradition.

The rest of the schools include a token 'non-Western' component, usually bringing in additional experts to cover (for example) China and India. But the larger challenge is to truly re-think the architectural survey course from a global perspective—to overhaul the categories and structures by which material is organized as a way to transform history education at its roots by reshaping its teaching at the survey level.

Beyond the issue of methodology, educators also face a challenge in the availability of content. Archaeological material is not always

easily accessible to teachers nor always easily translatable into lecture format. Documentation of sites in Africa and Asia are either non-existent or have not been published. Context analysis is also often missing or inadequate for the teaching of architectural history. And finally, as the canon of buildings, landscapes and cities becomes ever more inclusive, structures are continually being added to the list of important edifices with little to explain their importance.

With the help of committed global history teachers, the Teaching Collaborative will assemble a team of scholars to produce and assemble an array of teaching materials and tools—maps, images, drawings, syllabi, teaching modules, discussions sets, etc.—emphasizing transnational and transgeographical perspectives and designed either to be used 'as is' or as a foundation for further transformations.

Over the next three years, the Collaborative will also prepare and test a set of teaching

modules and strategies: not necessarily always a full 24-lecture sequence but a module of various possible lengths—say from 3–5 weeks—or modules that can be designed as 'inserts' in existing courses.

The project will fund about seven mini-grants per year, for three years, to research and develop teaching modules; an annual conference in the fall of each year to discuss and refine teaching modules; curriculum transformation grants; and a web-enabled database and other dissemination strategies.

In addition to Jarzombek, the project is led by Vikramaditya Prakash at the University of Washington. The project builds on their jointly authored book (with Francis D.K. Ching), *A Global History of Architecture* (Wiley Press, 2006), one of Jarzombek's two highly regarded books in the field. (The other is *Architecture of First Societies: A Global Perspective*, just released from Wiley Press.)



(D)



(E)

(A) An Ogala Tipi on the American plains, perfectly adapted to climate and mobility; the form dates as far back as 3000 BCE. (Photo: Library of Congress, Public Domain)

(B) Columns of the Temple to Amun-Re at Karnak, Egypt, from the middle of second millennium BCE; the surfaces were once ornamented with flower bundles, now faded. (Photo: Mark Jarzombek)

(C) A prison house in Dublin, mid 19th century; instead of a single vast chamber for all criminals, here the inmates were given separate rooms with easy capacity for surveillance from below, an innovation in its time. (Photo: Mark Jarzombek)

(D) Pagoda of Fogong Temple, China; built entirely of wood and with no nails, the structure dates from about 1000 CE and is one of the oldest existent wooden buildings in all of China. (Photo: Mark Jarzombek)

(E) Buseoksa Temple, Korea, originally built in the 11th century CE; one of the great examples of the bracketing system used in Buddhist shrines. (Photo: Public Domain)

Introducing Ken Goldsmith Assistant Dean for Finance and Administration

Ken Goldsmith has been appointed Assistant Dean for Finance and Administration in SA+P's dean's office, succeeding Diane McLaughlin who has retired after 27 years at MIT.

He is responsible for managing all financial, space and contractual matters for the school and serves as the key administrative liaison between the Dean's Office, the school's constituent units and MIT's central administrative units.

Most recently, Goldsmith was Assistant Dean for Administration and Planning at the Tufts University School of Medicine, responsible for developing and managing the school's \$130M annual operating and \$10M capital budgets.

Before Tufts, he worked at MIT for twelve years in a number of finance and administration positions—at SA+P's Media Lab (2006-09), the Division of Student Life (2004-06), the Department of Political Science (2000-04) and the Office of Budget and Financial Planning (1997-2000).

He has also worked as a Senior Budget and Policy Analyst with the Chicago Park District ('95-97), as a research assistant at the University of Chicago ('93-95) and as a foreign language instructor at the AEON Corporation in Fukuoka, Japan.

He holds a BA in History from Oberlin College and a MPP in Public Finance from the University of Chicago Harris School of Public Policy Studies. He is fluent in French and has a working knowledge of Russian, Spanish and Japanese.



Ken Goldsmith, new Assistant Dean for Finance and Administration, returns to MIT from the Tufts University School of Medicine, where he was Assistant Dean for Administration and Planning. (Photo: Judith M. Daniels/SA+P)

(Below left) Occupying a part of New Orleans where the median household income is less than \$28K, and where more than 22% of residents receive nutrition assistance from the Supplemental Nutrition Assistance Program, the ReFresh Project aims to deliver both high-quality fresh foods and health-related education programs. (Photo: Seth Knudsen, NORA)

(Below right) Christy Wallace Slater of the Kellogg Foundation with MCP alums Jeffrey Schwartz, Jeffrey Hebert and Seth Knudsen. (Photo: Kyle Gilmore, NORA)

Bringing Fresh Fare to an Urban Food Desert SA+P 'Spin-Off' Creates Community Food Hub in New Orleans

In February, a 60,000-square-foot grocery in New Orleans' Broad Street neighborhood, vacant since Hurricane Katrina, reopened its doors as a mixed-use community 'fresh food hub' including fresh and affordable groceries, commercial kitchens for school meal providers, and retail and office space.

Anchored by a new Whole Foods Market, the ReFresh Project, as it is known, is an initiative of Broad Community Connections (BCC), a non-profit Main Street organization founded in 2008 to revitalize the city's historic Broad Street as a commercial corridor, a project with connections to SA+P that run both wide and deep.

Both the BCC and the grocery redevelopment project can trace their origins to a Spring '07 practicum taught by planning lecturers Karl Seidman and Susan Silberberg; with the assistance of Seidman and student Jeff Schwartz (MCP '08), community leaders went on to found the BCC, hiring Schwartz as the first Executive Director.

The following year, Jackie Dadakis (MCP '10) and Aditi Mehta (MCP '10) were part of a student team that won second place in the JP Morgan Chase Community Development Competition for a redevelopment plan for the grocery store. The grocery went into development with help from the New Orleans Redevelopment Authority, including Executive Director, Jeff Hebert (MCP '04) and Seth Knudsen (MCP '08) as Project Manager. Other planning alumni/ae involved include Elaine Braithwaite (MCP '12) and Wanda Chin (MCP '80), among others.

MUCH MORE: SAP.MIT.EDU/PLAN



Professor of the Practice Antoni Muntadas Retires Internationally Renowned Installation and Media Artist



(Above left) Muntadas' series About Academia investigates the complicated relationship between the university as a nexus of knowledge production and the economic power that underlies its operations. (Photo: Irina Rozovsky)

(Above right) Anarchive#1—Muntadas Media Architecture Installations is described as an Interom, a format combining a CD-ROM and an exit on Internet, part of a series of works that investigates contemporary social spaces through architecture and media archetypes. (Centre Pompidou, 1999)

(Bottom) One student noted that Ochsendorf 'always insists that he learns more from his students than he could teach.' (Photo: Judith M. Daniels/SA+P)

After twenty-four years of teaching at MIT, Antoni Muntadas retired at the end of the spring semester to concentrate on his artistic practice, a global career spanning more than four decades, focused on the intersection of language, media and public space.

Muntadas first came to MIT in 1977 to join the legendary Center for Advanced Visual Studies (CAVS) as a research fellow. During his time there, he explored such topics as the dichotomies between subjectivity and objectivity, and the private and public. It was at CAVS that he coined the term 'media landscape' to define the ever-expanding presence of mass media, audiovisual material and advertisements in public space, as well as public interventions.

Since 1990, as a professor in SA+P's Visual Studies Program—now the Art, Culture and Technology Program—he has taught the seminar in public space and has used travel as a teaching instrument just like books, guest lectures or films, taking his students to cities as near as Las Vegas and as far away as Beijing to include students and artists from around the globe in the classroom dialogue.

In his own artistic practice, Muntadas addresses social, political and communications issues, investigating the ways in which channels of information can be used to censor or promulgate ideas. Presented in different media—such as photography, video, publications, the Internet and installations—many of his works function as temporary interventions to stimulate critical thinking and exchange.

This story is based in part on a report by Laura Anca Chichisan.

MUCH MORE: SAP.MIT.EDU/PLAN

Ochsendorf Named MacVicar Fellow Honored for Exceptional Mentoring, Teaching and Innovation

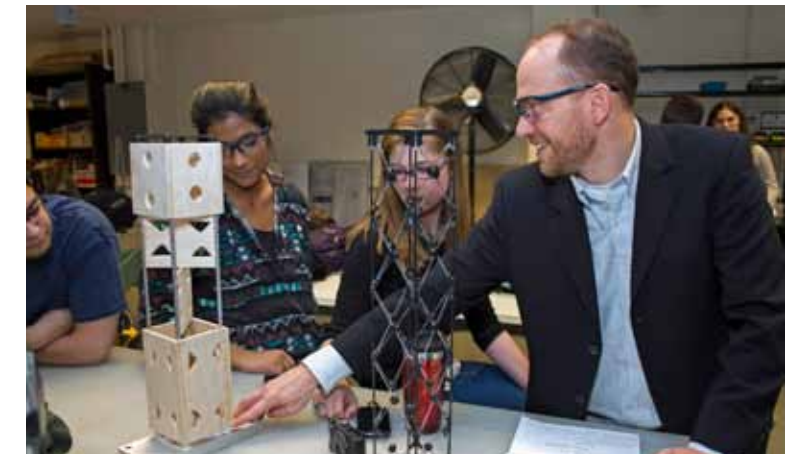
John Ochsendorf, Class of 1942 Professor of Architecture, has been named a 2014 MacVicar Faculty Fellow, one of a handful of professors recognized as exceptional undergraduate teachers, educational innovators and mentors. Fellows receive \$10K annually for a period of ten years to support their undergraduate teaching; with the addition of the 2014 Fellows, the program now sponsors 41 professors.

In support of his nomination, Ochsendorf's peers praised his 'lively and generous spirit' and his 'capacity to bring out the best in our top students ... truly a thing to behold.' SA+P dean Adèle Naudé Santos called him 'an inspirational teacher, a brilliant scholar and a fantastic colleague.'

Students praised Ochsendorf's mentoring style—'enabling me to dream bigger than I ever thought possible,' wrote one student. And speaking for himself, In response to the honor, Ochsendorf said 'I benefited from exceptional teachers throughout my own career as a student and I am really trying to live up to the golden standards that my former teachers have set for me.'

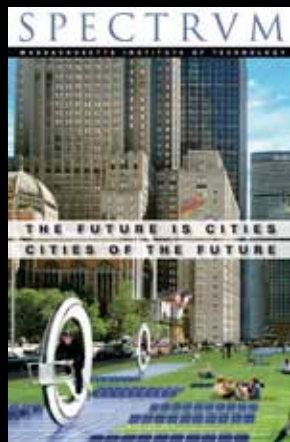
In 2008, Ochsendorf was awarded a MacArthur Fellowship, commonly known as a 'genius' grant, in recognition of his 'creativity, originality and potential to make important contributions in the future'. In 2007, he was the first structural engineer in history to win the Rome Prize Competition sponsored by the American Academy in Rome.

This story is based on a report by Elizabeth Durant.



THE FUTURE IS CITIES

AN ILLUSTRATED TOUR OF MIT WORK IN URBANIZATION



The winter issue of *Spectrum* focused on the range and scope of MIT's work in urbanism, the lion's share of which is being conducted at SA+P. (Magazine Cover Courtesy MIT Office of Communications; Cover Image Courtesy Hóweler and Yoon Architecture.)

(Above) Graduate student Michael Lin and researcher Sandra Richter have designed a vehicle for bike lanes that's one part bike, one part car and eight parts a solution to congestion, pollution, obesity and aging. (Photo: Len Rubenstein, Courtesy MIT Office of Communications)

This year's winter issue of MIT's *Spectrum* magazine—'The Future is Cities, Cities of the Future'—is a glossy 24-page production featuring oversized full-color spreads on current projects in urbanization, the lion's share of which are being conducted at SA+P. With an introduction by MIT President Rafael Reif, the issue addresses many of today's most important challenges—including poverty, energy, climate change, disaster resilience, transportation and sustainability—and the often startling ways our researchers are tackling those issues. As we launch our new Center for Advanced Urbanism, this magazine provides an invaluable glimpse of the range and scope of SA+P's vision for the future. Below, to spur your interest, you'll find a list of the stories that feature our work. You can find them all online at spectrum.mit.edu and download a PDF of the entire issue at the bottom of that page. If you'd like a hardcopy, please send your address to sap-info@mit.edu and we'll mail one to you.

Smart Components, Assembling Themselves
Skylar Tibbits transforms common materials into responsive and reconfigurable building elements.

Where Economy Meets Ecology
John Fernández is at the forefront of urban sustainability, an emerging field that explores a city's economy and ecology.

Barriers to Opportunity

Xavier de Souza Briggs reveals that if people in high-poverty areas move to low-poverty areas, soon they may be no better off than before.

Resilient Places

San Francisco rebuilt after the 1906 earthquake while Warsaw rebuilt after World War II. Larry Vale explains what makes cities so resilient.

Seductive Spaces, Sustainable Energy

Christoph Reinhart, who runs MIT's Sustainable Design Lab, creates a new modeling system to evaluate hundreds of buildings at a time.

A Soft House, To Last a Century

Sheila Kennedy creates a Soft House — tough enough to withstand the harshest elements and to last a century.

3-D Printed Buildings for A Developing World

Larry Sass's vision is for new buildings to rise faster, use fewer resources, and cost less, thanks to digital fabrication.

Do-it-Yourself Manufacturing

Neil Gershenfeld creates fab labs, aimed to reshape cities socially and economically.

Data Visualizing Healthy Cities

Sep Kamvar's group is making 10,000 data visualization maps, so residents can view cities like never before.

Greening Gray Infrastructure

Judith Layzer says as urban development escalates and climate change creates rising seas, current water management systems are failing.

Not Just Men in Spandex

Michael Lin and Sandra Richter design a future vehicle for bike lanes.

Shaping Vibrant Cities

Alumni from Toronto to Beijing meet to discuss urbanism.

Minsky Honored for Lifetime Achievements

Pioneering Work and Mentoring in the Field of Artificial Intelligence



(Above Left) The Minsky Arm, using a video camera and computer to build with children's blocks, was the principal inspiration and source of ideas for his landmark book, *The Society of Mind* (1986).

(Photo: Judith M. Daniels/Courtesy of the MIT Museum)

(Above Right) Minsky has received a host of other awards including the ACM Turing Award, the Japan Prize, and the IEEE Computer Society Computer Pioneer Award.

(Photo: Barry Hetherington)

(Below) Scharoun was an accomplished architectural artist, executing drawings for imaginary projects throughout his life; none of the exhibited drawings were made for commissioned projects. (Image: Courtesy of Akademie der Künste, Baukunstarchiv (Hans-Scharoun-Archiv))



Hans Scharoun: Architect and Visionary

An Exhibit including Rarely-Seen Watercolors from the 1940s

On display in SA+P's Wolk Gallery from April 3—August 15, *Hans Scharoun: Architect and Visionary* focuses on the graphic art of Hans Scharoun (1893-1972), known today for architecture of profound humanism and expressionism.

With Walter Gropius, Hugo Häring, Ernst May and others, Scharoun was a member of the modernist architects' association 'Der Ring'. As City Architect of Berlin, he was instrumental in the post-war reconstruction of the city; his approach valued the continuity of buildings with their surroundings and a decentralized urban landscape, in sharp contrast to the over-scaled monumentality that had dominated Berlin planning under National Socialism.

During the 1950s, he designed several highly influential buildings including the Romeo and Juliet Apartments (Stuttgart, 1954-59) and the Scholl School (Lünen, 1956-62), but his most famous building was the concert hall of the Berlin Philharmonic (1956-63), recognized as one of the world's finest halls. Under construction at the same time as the Berlin Wall, the Philharmonic and its un-hierarchical plan came to symbolize humanistic and democratizing ideals at the height of the Cold War.

Organized in collaboration with the Akademie der Künste Berlin, the Wolk exhibit extends from his earliest preserved drawings from 1908 to graphics for posthumous projects and includes rarely-seen visionary and expressionistic watercolor renderings from the 1940s.

Media Lab professor emeritus Marvin Minsky, a pioneer in the field of artificial intelligence, has won the \$540K BBVA Foundation Frontiers of Knowledge Award in the information and communications technologies category.

The Foundation cited his influential role in defining the field of artificial intelligence and in mentoring many of the leading minds in today's artificial intelligence community. The award also recognizes his contributions to the fields of mathematics, cognitive science, robotics and philosophy.

He has also received this year's Dan David Foundation Prize for the Future Time Dimension, which cited him as among the most influential intellectuals of the 20th century in a variety of disciplines including AI, robotics, computation, learning, cognition, philosophy and optics.

A founding member of the Media Lab, where he continues to teach and mentor, Minsky joined the faculty of MIT's Department of Electrical Engineering and Computer Science in 1958 and co-founded the Artificial Intelligence Laboratory (now the Computer Science and Artificial Intelligence Laboratory) the following year. In 1985, he was named the Toshiba Professor of Media Arts and Sciences.

Minsky's book, *The Society of Mind* (1985) is considered the seminal work on exploring intellectual structure and function, and for understanding the diversity of the mechanisms interacting in intelligence and thought. His most recent book, *The Emotion Machine: Commonsense Thinking, Artificial Intelligence, and the Future of the Human Mind*, was published in 2006.

This story is based on reports by Ellen Hoffman and Patsy Sampson.

Media Lab Auditorium Named for Alexander W. Dreyfoos

Renowned Inventor, Philanthropist and Advocate for the Media Lab

The MIT Corporation has named the auditorium atop SA+P's new Media Lab Complex in honor of Alexander W. Dreyfoos '54, a renowned inventor and philanthropist and early advocate for the creation of the Media Lab.

His longstanding relationship with the Media Lab goes back to 1980, when he assisted then-MIT President Jerome B. Wiesner and founding director Nicholas Negroponte in their efforts to develop the new lab. He also endowed the Alexander W. Dreyfoos Professorship at the Media Lab, currently held by Pattie Maes, a professor in media arts and sciences.

Dreyfoos has left his mark on the Institute in many other ways. In 1998, he funded the construction of the Alexander W. Dreyfoos Building, one of the two iconic towers that make up the Ray and Maria Stata Center. Through his decades on the MIT Corporation, he has served on the Corporation Development Committee and on the Visiting Committees for Electrical Engineering and Computer Science and the Media Lab/Program in Media Arts and Sciences.

Dreyfoos also chaired the Media Lab/Program in Media Arts and Sciences for more than a decade, and is currently a member of the Media Lab's Advisory Council. He and his wife, Renate Dreyfoos, are ardent supporters of the arts and arts education and since its inception, the Media Lab has become the signature lab of MIT's culture of creativity and multidisciplinary research, innovating in the spaces where art, technology and design intersect.

A Life Member Emeritus of the MIT Corporation, Dreyfoos is chairman and owner of The Dreyfoos Group, a private capital management firm. In 1963, he founded Photo Electronics Corporation, which manufactured electronic equipment for the photographic industry. An inventor with 10 US and multiple foreign patents in the fields of electronics and photography, he has made significant technological contributions to the film industry and in 1970 received an Academy Award for developing a motion picture video analyzer.



(Above) Among Dreyfoos' many inventions was the Professional Video Analyzing Computer, used by photographic labs to make high-quality color prints and marketed worldwide by Eastman-Kodak. An earlier version, invented in 1964 and still in use throughout the world, is on permanent display at the Smithsonian Institute in Washington DC. (Photo: Courtesy MIT Resource Development)

(Bottom) As director of the Hayden Gallery, Wayne Andersen generated national interest in MIT as a sponsor of contemporary art, with original exhibitions of the work of Hans Haacke, Takis, the Park Place Group and the photographer Minor White, among others.

Wayne Vesti Andersen: 1928–2014

A Seminal Role in Developing the Arts at MIT

Wayne Andersen, professor emeritus of history, theory and criticism of art and architecture, died January 6 at age 85.

Andersen was a scholar, author, lecturer and consultant to corporations and government agencies, with expertise that ranged from the finer points of Paul Cézanne's drawings to the breeding lines of Arabian horses.

After completing his PhD at Columbia, Andersen was brought to MIT by then-President Julius Stratton to introduce the history of art as an undergraduate offering and to develop a program of visual arts for the Institute.

As chairman of MIT's Committee on the Visual Arts from 1965 to 1977, he added large-scale sculpture to the campus and inaugurated one of the first 'percent for art' programs at any university; the requirement for the MIT collection was that all artworks remain publicly accessible. He also brought artists and critics to MIT to engage both students and faculty with ideas in contemporary art.

With Stanford Anderson and Henry Millon, Andersen also co-founded the program in the History, Theory and Criticism of Art and Architecture, a program in the department of architecture that has had an unusually large impact on the field, given the size of its faculty and enrollment; the National Research Council has listed it among the nation's top research doctoral programs.

In 1968, Andersen was appointed as a consultant to the Boston Redevelopment Authority for art projects done under a percent-for-art program associated with public spaces built with federal or state funding. Starting in the late 1970s, he was one of the first corporate art consultants to advise companies on how to enrich their environment as part of their corporate identity. In 1986 he founded Vesti Design International, specializing in integral art installations.

Andersen was the author of 14 books, including *Gauguin's Paradise Lost* (1971, with a second edition in 2013), which was labeled an 'extraordinary study' by Christopher Lehmann-Haupt in *The New York Times*; and *The Youth of Cézanne and Zola* (2003), which was rated among 'the best of the best of 2003' by the *Los Angeles Times Book Review*.

MORE: SAP.MIT.EDU/PLAN

THE EYE IS A DOOR LANDSCAPE PHOTOGRAPHS BY ANNE WHISTON SPIRN



(Above) *Fields of Force, Lines of Power.* Glen Loy, Scotland. September 1978. (Photo: Anne Whiston Spirn. All rights reserved.)

(Below) *Angle of Repose.* Baker City, Oregon. May 2005. (Photo: Anne Whiston Spirn. All rights reserved.)

On view at the Smith College Museum of Art through August 31, *The Eye Is a Door: Landscape Photographs by Anne Whiston Spirn* is the first major exhibition to explore how Spirn's photographs encourage a deeper understanding of the natural and built environment through the development of visual literacy—seeing as a way of knowing, photography as a way of thinking. Her latest book, *The Eye is a Door*, describes her approach.

The 46 color images featured in the show connect such diverse topics as geology, biology, astronomy, anthropology, engineering, architecture, history, literary studies, studio art and landscape studies. Produced over the past 35 years, they capture stories and ideas embodied in places Spirn has visited for her research, which range from the volcanic landscapes of Iceland to sacred Buddhist gardens in Japan.

'Her images manage to be simultaneously gorgeous and chaste,' wrote Mark Feeney in his *Boston Globe* review. 'There's something like exaltation [in them], but not quite. The images are too grounded in specificity for that. They're too solid. Exaltation is a quality of spirit, and the emotions here are always rooted in place—a particular, there-and-then, on-this-planet place.'

The places in the photos range from Nahant MA, where Spirn lives, to Japan, Australia, Iceland, Sweden, Britain, France and the

American West; most of the pictures are 20"x30" or 30"x40", with two at 50"x40". 'The size of the pictures makes the landscapes feel habitable,' wrote Feeney. 'There are no people in them, but often evidence of their presence—not just the "acceptable" picturesque-ness of white-washed cottages or stone walls, but an aqueduct, a pipeline, telephone poles and wires. Spirn's vision of the world is inclusive.'

A professor of landscape architecture and planning in the Department of Urban Studies and Planning, Spirn is the author of several award-winning books including *Daring to Look: Dorothea Lange's Photographs and Reports from the Field* (University of Chicago Press, 2008), *The Language of Landscape* (Yale University Press, 1998) and *The Granite Garden: Urban Nature and Human Design* (New York: Basic Books, 1984). Her new book, *The Eye Is a Door: Landscape, Photography, and the Art of Discovery*, was published this spring as an original e-book. For more on the book and the exhibit, see www.theyeisadoor.com/.

She is director of the West Philadelphia Landscape Project, cited as a 'Model of Best Practice' at a White House summit in March 1999. In 2001, she received the prestigious International Cosmos Prize for a lifetime of work contributing to the 'harmonious co-existence of nature and mankind'.

