Changing Cities
75 Years *of* Planning Better Futures *at* MIT

Lawrence J. Vale

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Exhibition & Catalogue design: Buscada Design

MIT SA+P DUSPMIT MIT museum

Dedicated to the Students and Alumni/ae of MIT's Course in City Planning

Contents

Acknowledgments

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Changing Cities
75 Years *of* Planning Better Futures *at* MIT

Preface

Planning
Urban Studies
Change

Each morning as I walk into my office in the Department headquarters, I pass a bronze plaque sponsored by the American Institute of Certified Planners honoring Frederick Johnstone Adams as a "National Planning Pioneer." I know Adams as the founder of MIT's planning course in 1933, but never knew him personally, since my own arrival at MIT occurred well after his death in 1979 (never mind the fact that the plaque says he died in 1980...). In theory, Fred Adams and I have held the same title – "Department Head" – but he was charged with inventing and staffing a new course (while leading a new profession). In contrast, my very different challenge has been to navigate, mediate, moderate, advocate, promote, cajole, and sometimes attempt to herd a sprawling department that currently lists 241 subjects in its curriculum and regularly has about 80 different people teaching our students. In 2007 alone, more students graduated from the Department than in the years 1935-1949 combined. In the early days, everyone took a common set of classes; today, no two students ever graduate having taken an identical curriculum. One more point of contrast: In 1933, MIT's tuition was $500 for the year – about 70 times less than it is today. Even factoring in a 1500% rise in the c.p.i. over the last 75 years, the old days look like a bargain. Fortunately, the Department now annually offers about $3 million in financial aid, though this still falls far short of meeting the actual need of our students.

As I approach the end of my own stint as Department Head it has seemed worth seizing the occasion of our 75th year to pause and reflect on where we have been and where we may next be heading. This volume, and the Wolk Gallery exhibition that spawned it, is the product of that search.

Core Dilemmas: Studios, PIP, PEP, QR, and Gateway

The main text of this volume has relatively little to say about developments in curriculum and pedagogy, in large part because proper discussion of those topics requires both more documentation – and different sorts of documentation – than can easily be provided in the format of an exhibition or catalogue. It is important to acknowledge up front, however, that considerations for what we teach and how we teach it have always been at the heart of Departmental life. The first three decades of MIT's city planning course are frequently assumed to have been a time of unexamined consensus over a core curriculum centered on physical planning. Yet, even seven decades ago, students and faculty were restlessly interventionist. In 1940, Fred Adams polled the MCP graduates about their experiences. As the following excerpts from their replies suggest, even then there was no agreement about which elements mattered most for an education in city planning:

> "In general, I should say that there was too much emphasis on drudgery and not enough on brain work.... There was too much time spent in the drafting room performing the mechanical functions of drafting, coloring maps and the like."
> --Philip Darling (MCP '40), Assistant Project Planner, United States Housing Authority

> "More time should be devoted to theory and discussions of fundamental facts and principles of city planning and less time to design problems.... Much more actual pounding of knowledge into the student is necessary and a little less solving problems according to individual whims."
> --Lloyd Keefe (MCP '40), Planning Technician, Evansville City Planning Commission

> "It does not seem to me that the curriculum recognizes the importance of regional problems."
> --Thomas W. Mackesey (MCP 1938), Instructor in Regional Planning, Cornell University

> "A master's thesis should be something more than a design problem. ... The thesis should represent an original investigation—something of a research character."
> --F. Stuart Chapin, Jr. (MCP 1940), Assistant Regional Planner, Tennessee Valley Authority

> "The most valuable training is the wide general training in Design. The method is correct—not entirely theoretical problems but problems relating to practical cases."
> --J. Ross McKeever (MCP 1936), Planning Assistant, Boston City Planning Board

> "I find my thoughts coming back again and again to the value of design, whether it is for a town plan, a boating center, a civic center, a shopping center, or an industrial area."
> --Charles A. Blessing (MCP 1940), Planning Technician, New Hampshire State Planning & Development Commission

"I still think of the course in Social and Economic Factors as one of the most useful I had; I would like to see more emphasis on both sociology and economics. Furthermore, I would appreciate better grounding in statistics—Dr. Burdell gave us about two weeks, and two months might be enough."
--John T. Howard (MCP 1936), City Planner, Regional Association of Cleveland

"Too often we educate ourselves in such a way that we are scared to death when we are caught without our books and files. One should proceed on the assumption that the only thing he can be certain of having with him at all times is his mind."
--Richard L. Steiner (MCP 1939), Assistant Project Planner, H.S.H.A.

Although these early students evinced no consensus about the relative importance of what they were taught, it is important to reiterate that, in stark contrast to the individualized plans of study and the highly differentiated program groups of today's Department, in the early decades all students shared a common curriculum. Perhaps the main difference between the first 35 years of MIT's planning course and the next 40 is that the early students waited to be asked for their post-graduation critiques whereas, starting in the mid-1960s, students have taken it upon themselves to press for change while still enrolled. Put simply, efforts to seek constructive institutional transformation within the Department became seen as practice for post-graduation roles.

The results, championed by both students and faculty, proved dramatic. By the end of the 1960s, nearly everything about the Department had come into question, leading to abolition of the mandated core curriculum and required studios. When the required MCP core curriculum returned in the early 1970s it did so in a new way, centered on "practice"—what Langley Keyes and Larry Susskind termed "theory in use." Core classes included subjects in Economics (with ongoing debates about whether the class should emphasize political economy or neo-classical microeconomics), Quantitative Methods, Planning Process, and Institutional Analysis. "Our aim," Keyes and Susskind wrote in 1974, "will be to educate effective professionals who are well versed in what the traditional disciplines have to say about the form and structure of human settlements and who are especially skilled in formulating theories of action that will enable implementation of constructive social and institutional change." They also urged the Department to "draw tighter boundaries around our areas of special competence," by sorting the existing faculty into "key areas."[1] The department then had three program groups: Community and Regional Development; Environmental Design; and Public Policy Analysis. Since then, the

names and number of program groups have varied considerably, but the overall sense of a department organized into smaller groups has remained consistent.

In 1982, the Department again reconsidered its core curriculum in the MCP program, this time creating a new hybrid subject, Planning and Institutional Processes (aka "PIP"), jointly taught by Keyes and Donald Schön. Other core subjects, Political Economy for Planners (aka "PEP"), taught initially by Bennett Harrison, and Quantitative Reasoning (aka "QR"), taught for many years by Mark Schuster, rounded out the common experience of MCP students for much of the next two decades.

In 2002, following a review led by Dennis Frenchman, the Department again recast the MCP core curriculum, centering it on two "Gateway" classes-- "Planning Action" and "Planning Economics," while retaining required subjects in Microeconomics and Quantitative Reasoning. The new core also increased the emphasis on communication skills and required students to take a workshop-style "practicum" subject.

Despite its many transformations, I still think that the Department of 2008 would be largely recognizable to a graduate from 1993, or 1983, or 1973--and barely intelligible to a graduate from 1963 or earlier.

This catalogue is organized both chronologically and thematically, attempting to address the long gestation of many perennial preoccupations while also giving my sense of our overall trajectory as a Department. These latter questions are taken up even more explicitly in two appendices, commissioned originally as preparation for a DUSP Faculty Retreat held in March 2007. The first, aptly entitled "Here We Go Again," explores a wide range of recurring questions: issues of departmental mission, core knowledge, departmental governance, theory vs. practice, place-based vs. policy orientation, professional vs. doctoral education, student and faculty diversity, funded research and financial aid, the role of program groups, and the Department's fit with the rest of the Institute.
A second appendix, entitled "Trends in Cities, Planning, and Development," is more explicitly forward looking. We need to understand what pressing issues will engage the current department and cause us to adapt. How will we adjust what we teach and what we practice in the face of such challenges as climate change, new patterns of migration, racial and ethnic conflicts, new technologies, new forms of complex decision-making, the return

to large-scale development, and the emergence of a hybrid public-private realm? Can we help bring about a new kind of holistic conception of the city-region? Our symposia held on April 4, 2008 represent a start at engaging these questions, but there is much more to be done.

A third and final appendix is a treasured artifact from an earlier effort at celebration and commemoration. In 1956, to mark the 20th anniversary of the Department's first MCP degree, Melvin Levine (MCP '56) penned a musical satire of the department and planning profession, appropriately entitled "Tomorrow the World." Other graduates of that era recall a rich departmental musical life, much of it orchestrated by Mel: Lloyd Rodwin on drums, Walter Isard on violin, Burnham Kelly on clarinet. Sadly, Mel passed away in late 2007, so we include this appendix to honor his memory and recall his humor.

MIT-Affiliated "National Planning Pioneers"
(American Institute of Certified Planners)
Charles Abrams (faculty)
Frederick Adams (faculty)
F. Stuart Chapin, Jr. (alum)
Carl Feiss (alum)
John Tasker Howard (alum, faculty)
T.J. Kent (alum)
Kevin Lynch (alum, faculty)
Lewis Mumford (visiting faculty)
Flavel Shurtleff (faculty)
Francis Violich (alum)

MIT-Affiliated "Distinguished Planning Educators"
(Association of Collegiate Schools of Planning)
F. Stuart Chapin, Jr. (alum)
Susan Fainstein (alum)
John Friedmann (former faculty)
John A. Parker (alum)
Lisa Redfield Peattie (faculty)
Lloyd Rodwin (faculty)
Lawrence Susskind (alum, faculty)

Faculty who have won Guggenheim Fellowships
Lloyd Rodwin (1964)
Robert Fogelson (1973)
Richard Sennett (1973)
Bernard Frieden (1975)
Martin Rein (1978)
Frank Levy (1986)
Lawrence Vale (1995)
Anne Whiston Spirn (2007)

Staffing the Department

Throughout its history, the Department has depended mightily on the dedicated service of staff and support staff. To date, three key staff people have each served the Department for at least two decades: Administrative Officer Rolf Engler (1971-2002), Student Services Coordinator Sandy Wellford (1973-present) and SPURS Administrator Nimfa de Leon (1985-present).

Student Life

From the 1930s through the mid-1960s, student life in the City Planning course centered on physical design studios.

Other classes used informal classroom settings, such as this session with Joe Ferreira [middle right] and a meeting of the PEP class led by Ben Harrison [below, seated at right].

Out of the Classroom
City Planning students Bernie Brenner (MCP ‘58) Joe Savitzky (MCP ‘58) and architecture student Julian Beinart, seated (MArch ’56, later to join the MIT faculty), managed to fit in a camping trip with some as-yet-unidentified female companions, circa 1956.

Not to be left out, Department faculty have also occasionally managed a social life, as suggested by this image from a gathering of colleagues from the international development group during the 1990s.
[Left to right: Diane Davis, Judith Tendler, Bish Sanyal, Lisa Peattie, and Ralph Gakenheimer]

Planning at MIT: An Introduction

1

Planning
Urban Studies
Change

Coincident with the first 75 years of City Planning education at MIT, the percentage of the world's population living in urbanized areas has doubled. For the first time in human history, city dwellers now constitute the planet's majority. With this fundamental change, the meanings of both "cities" and "planning" have been irrevocably altered. Cities, never separable from their hinterlands, are now even more inevitably recognized as city-regions. Planning, never solely about plan-making, is now even more wholly engaged with questions of process and implementation. Never simply a matter of physical form-making, planning is now thoroughly integrated with larger study of the social, economic, political, and cultural aspects of urban life. In this context, *Changing Cities* is both a description of the urbanization that has occurred, and a call to action.

As an academic home for training planners and those who interpret what planners do, MIT's program has always done more than staff a profession; it has endeavored to change it. To do so, the program has responded to three successive national and international crises: the socio-economic challenges of the Great Depression and the reinvigoration of the public sector; the socio-political upheavals of the late-1960s and the calls for community action; and the present-day socio-environmental challenges of an imperiled planet.

Up from Adams

2

Planning pioneers
New courses
Growth & succession

In 1932, William Emerson, Dean of the newly established School of Architecture asked pre-eminent town planner Thomas Adams to outline a new course in city planning. Recognizing its importance to the study of architecture, Emerson presented this outline to MIT president Karl Taylor Compton, noting that MIT's course would differ from those at Harvard and Cornell because it "approaches city planning definitely from the architectural standpoint." Concluding that the Institute needed an additional $4200/year to establish the course, Emerson made a remarkable offer: he and his wife would underwrite $2000 for the first 5 years if the Institute supplied the remaining $2200. Compton noted, "Professor Emerson expressed the opinion that the son of Mr. Thomas Adams...will be an ideal man to put in charge of this course."[2] And so, with the School of Architecture still located in lonely isolation in Boston and the nation mired in the Great Depression, the new course in City Planning gained both its budget and its first leader: Frederick J. Adams.

In the earliest years of the program, Adams artfully dodged accusations from Cornell's Gilmore Clarke that the new courses in City Planning were "neither flesh, fowl, nor red herring" and countered Clarke's assertion that city planning practice required a "group of what we might call supermen," expected to be trained in too many disciplines. Adams retorted that he had "more faith in the opinions of my father [and] Sir Raymond Unwin" since they, unlike Clarke, were "practicing city planners."[3]

In the program's first decade, the faculty consisted of Fred Adams, visiting lecturers including Thomas Adams, Sir Raymond Unwin and Marjorie S. Cautley, and other faculty including Joseph Woodruff and Flavel Shurtleff,

co-founder of the American City Planning Institute (precursor to the APA). In 1934, Edwin Burdell established the first class on "Social and Economic Factors in City Planning". This early struggle to balance research with practice, and socio-economic considerations with design, foreshadowed fundamental debates that would re-emerge throughout the Department's history.

Following the end of World War II, student enrollment in the planning course quickly doubled, with the graduate MCP program increasingly dominant. The course gained departmental status in 1947, as the faculty grew: Roland Greeley and Homer Hoyt joined in 1944, followed by Burnham Kelly in 1945, Lloyd Rodwin in 1946, Kevin Lynch in 1948, Jack Howard in 1949. Charles Abrams in 1950, Louis Wetmore in 1952 and Walter Isard in 1953.

Many alumni from this period became leaders in planning internationally or broke barriers of race and gender. Antonio Cruz Kayanan, class of 1942, was a founding member of the Puerto Rican Society of Planning. Norma F. Satten, class of 1945, became an important advocate for the elderly. Samuel Cullers, FAICP, the first African American to graduate from the program, in 1952, went on to lead planning teams in Bangkok, Thailand; Chicago, IL; Toronto, Canada; and the California State Office of Planning. Serafin Garcia Aquino, class of 1953, returned to the Philippines and founded the Philippine Institute of Environmental Planners with colleagues. As president of that organization from 1992-1993, Aquino was instrumental in working with the national government under President Fidel V. Ramos to establish the Board of Environmental Planners, bringing national recognition to the planning field in the Philippines for the first time. By 1954, fully one-third of the Department's graduate students came from abroad.

After more than two decades of leadership, Fred Adams sought out a successor. Gordon Stephenson (MCP '38), Professor of Civic Design at the University of Liverpool, emerged as the top choice for the position in 1955. Both Stephenson and MIT were startled when his application for a visa was abruptly denied, ostensibly due to his modest role in a society promoting "Cultural Relations" with the Soviet Union during the late 1940s. Stephenson instead took up a Chair at the University of Toronto, noting in his memoir, "Our plan to return permanently to MIT and New England had gone sadly awry. After living through

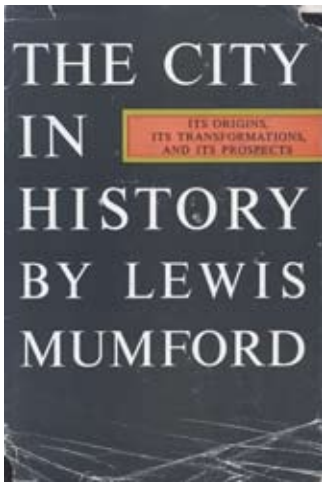
World War II in England my wife was to return home, and I was to be head of the most important planning school in the English-speaking world. It was not to be."[4]

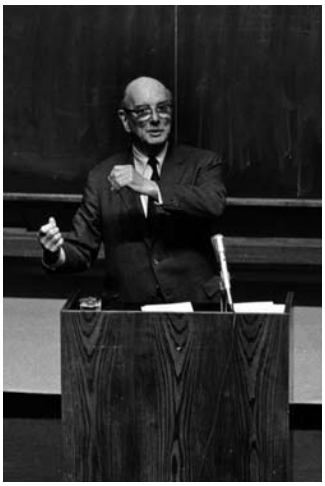
The Department could change cities, but could not change the McCarthyite politics of the era. With Stephenson rebuffed, Adams stayed on and the Department found a new head from within its own ranks. Aside from a failed attempt to hire sociologist S.M. Miller in 1970, it would be a full fifty years before the Department ever again looked outside for a new department head.

"It is my belief that freedom of thought and action, within the limits of our accepted and painfully established moral, ethical, and legal codes, is something to cherish. It is probably one of the reasons why MIT, where the spirit of enquiry is tremendously strong, invited me to join its faculty... It would seem that I am to be prevented from fulfilling this because of the machinery of administrative justice, which is but ill-related to the natural justice, gradually accepted over a long period of time as basic to the American and British ways of life."[5]
– Gordon Stephenson [left, on a visit in 1980]

Stephenson was married to Flora Crockett, MIT's first female MCP graduate [far left].

[right] Students in 1940 gathered with Prof. Adams. From the start, MIT planning students were invited to critique the course, a tradition that continues to this day. In 1940, Adams got an earful from an ex-student and his successor: "I see city planning less and less as a design profession... In fact, too much skill in drafting and detail design may lead a planner to spend his time working out curb-radii... instead of attending to the important large-scale activities."[6] - John T. Howard (MCP 1936), Planner, Regional Association of Cleveland

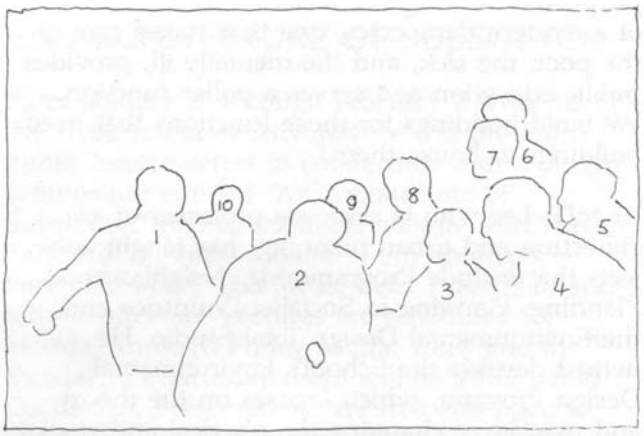




Urbanist Lewis Mumford was a frequent visitor to the Department in the 1940s, 1950s, and 1970s. As Bemis Visiting Professor in the late 1950s, Mumford completed some of the work on his landmark study *The City in History*.

Sir Raymond Unwin [far left], the famous English town planner, gave a series of eight lectures during December 1933 and January 1934, and was a frequent visitor throughout the 1930s.

"The aim of the planner," Unwin told the inaugural cohort of MIT planning students, "must be to place all his parts and buildings in such relation one to the other as to permit the life of the town to flourish with the least possible moving to and fro of goods and persons."[7]



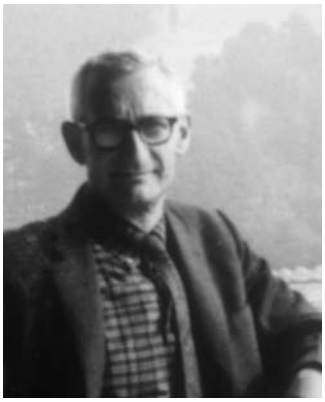
1. Raymond Unwin
2.Philip V. Darling (MCP '40)
3. F. Stuart Chapin, Jr. (MCP '40)
4. James J. Souder (B. Arch '36)
5. Walter A. Wachter (MCP '39)
6. Stephen A. Kaufman (MCP '40)
7. Charles A. Blessing (MCP '39)
8. Richard L. Steiner (MCP '39)
9. Jane S. Rodman (MCP '40)
10. Unidentified B. Arch in city planning student

Frederick Adams

1st Dept. Head 1947- 1957
President, American
Institute of Planners

Frederick Johnstone Adams, born in London in 1901, was educated in Canada and the U.K. before obtaining his B.Arch from Columbia University in 1928. He worked with Clarence Stein and Henry Wright on the construction of Radburn, New Jersey and took up the post of Assistant Professor at MIT in 1932. Founder of the Planning course, he served from 1947-1957 as the first head of MIT's Department of City and Regional Planning.

Although his program at MIT began as part of the architecture department, with a studio-dominated curriculum, Adams always insisted on integrating social and economic issues. By 1938, he had introduced subjects such as Planning and Housing Legislation, History and Principles of City Planning, Theory and Practice of City Planning, and City Planning Research, in addition to Site Planning and Construction, Theory of Site Planning, and City Planning Design studios.



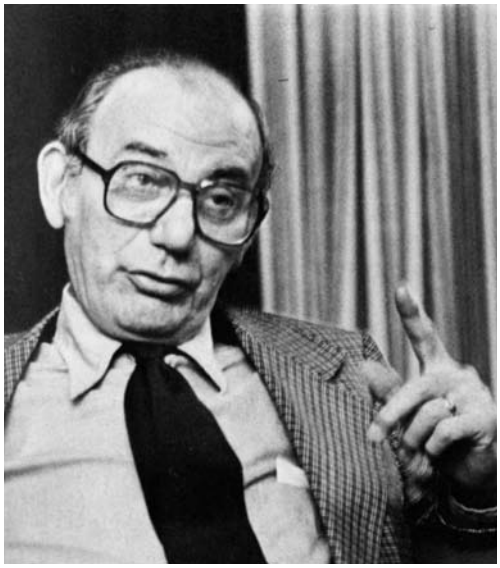
Early recipients of MIT's planning degrees went on to found or lead planning departments around the country.

[top left to right]
Francis Violich ('38) and Thomas J. Kent ('43) were founding members of the University of California at Berkeley's Department of City & Regional Planning.

[center left to right]
Burnham Kelly ('40) and Thomas Mackesey ('38) both joined the faculty at Cornell University and led major changes in planning education there.

3 of the 4 MCP graduates from 1946 went on to found the planning department at the University of North Carolina, Chapel Hill: John A. Parker as dean, and James Murray Webb and Pearson Stewart as faculty members. Parker next hired F. Stuart Chapin ('40). [not shown]

[below]
Louis B. Wetmore graduated with a B.Arch in City Planning in 1936 and went on to head the Dept of City Planning & Landscape Architecture at the University of Illinois at Urbana-Champaign in 1955, joined by Lachlan ("Lock") Blair ('49). Wetmore later led the formulation of the national Model Cities program.



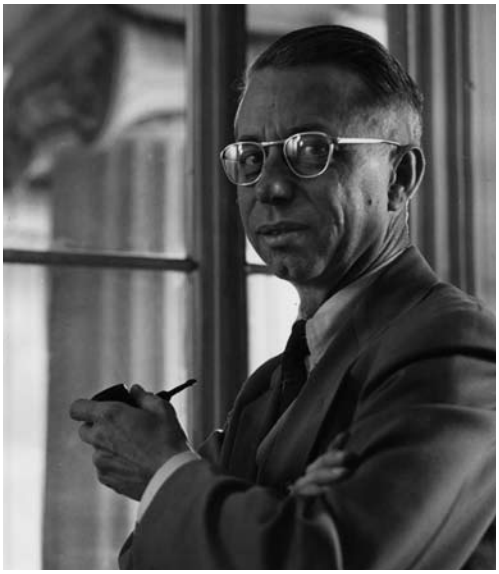
Another early graduate, Henry Cohen (MCP '44) [above left] joined the American army in Germany shortly after graduation, and wrote Fred Adams a remarkable letter from German front while the war still raged, expressing the idealism inspired by his education and his hope that "men will be able to say that London was replanned not because of Nazi bombs, but because the County Council was inspired by high ideals: that the ruins we make here were not caused by a destructively-inspired coalition of people, but by a humanity intent on liberating and giving all the opportunities for a free and new life."[8] In 1946 (at age 23) Cohen was appointed director of the Föhrenwald refugee camp in Germany's American Zone, where he was responsible for ensuring the well-being of more than 5,000 Jewish survivors of the Holocaust. Confirming this early evidence of leadership ability, he went on to a distinguished career in New York City government, and then became the founding Dean of the Milano Graduate School of Management and Urban Policy at New York's New School.

Alan Voorhees (MCP '49) founded the transportation consulting firm of Alan M. Voorhees & Associates, Inc., which grew to include 10 offices in the United States, as well as offices in Caracas, London, Melbourne, São Paulo, Toronto, and Zurich. Voorhees later became dean of the College of Architecture, Art, and Urban Sciences at the University of Illinois-Chicago.

Israel Stollman (MCP '48) [above far right] went on to lead the program at Ohio State, as did Carl Feiss (MCP '38) at Columbia University and Gordon Stephenson (MCP '38) at the University of Toronto. Stollman later gained national attention as founding Executive Director of the American Planning Association, where he served from 1978 to 1993.

John Tasker (Jack) Howard

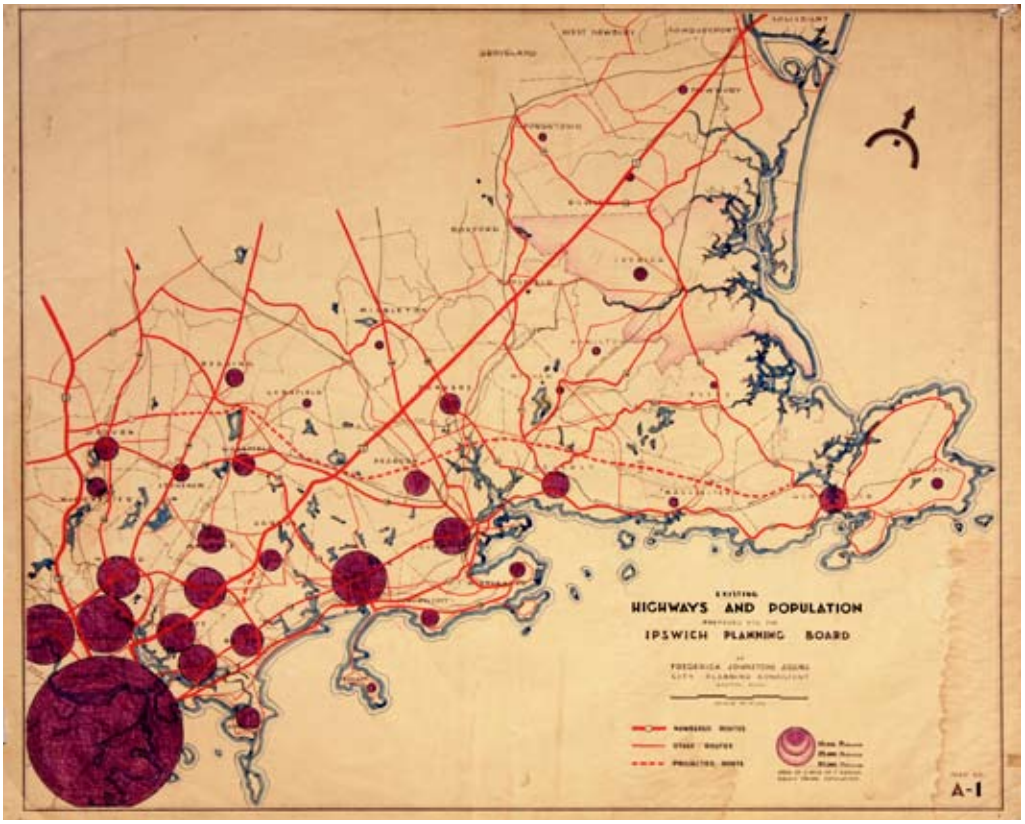
1st undergraduate class (1935)
1st MCP class (1936)
2nd Department Head 1957-1970
President, American Institute of Planners



The 1959 department brochure perfectly encapsulates the underlying ethos of the Howard era: The objective of the planner is "the development of the most satisfying and efficient physical environment in which people may live, work, and play." Howard also expected students "to transmit ideas in 3 languages: words, numbers, and pictures."

Howard explained, "We were not pariahs to the architects. We were close relatives. From time to time, I would tell an architecture student that architects are to planners what plumbers are to architects, but they didn't take that very seriously."[9]

Although Howard lived in suburban Wayland, he was an early critic of sprawl, observing that spread-out suburbs "put children at the mercy of their mothers who have to serve as chauffeurs. It is neither good for the kids, or their mothers." Yet, Howard also championed the liberating power of the car, seemingly oblivious to pressures of class and race: "The automobile has made the slums of the city obsolete. With the automobile the workers can move out to the open spaces and the slum areas can be redeveloped into a pleasing area."[10]



[above] Study of highways and population in Northeastern Massachusetts prepared for the Ipswich Planning Board, Frederick J. Adams, c. 1935. The firm of Adams, Howard and Greeley, founded in 1949, expanded the influence of MIT planning faculty beyond New England to include metropolitan plans for the San Francisco Bay area and Washington D.C., as well as the plan for Gandhidham, a new port city in India.

[above] A rehabilitation study of East Cambridge, MA. Theodore S. Bacon ('56) & M.T. Cooke.
This land-use analysis of the area near MIT during the mid-1950s includes Kendall Square at lower left.

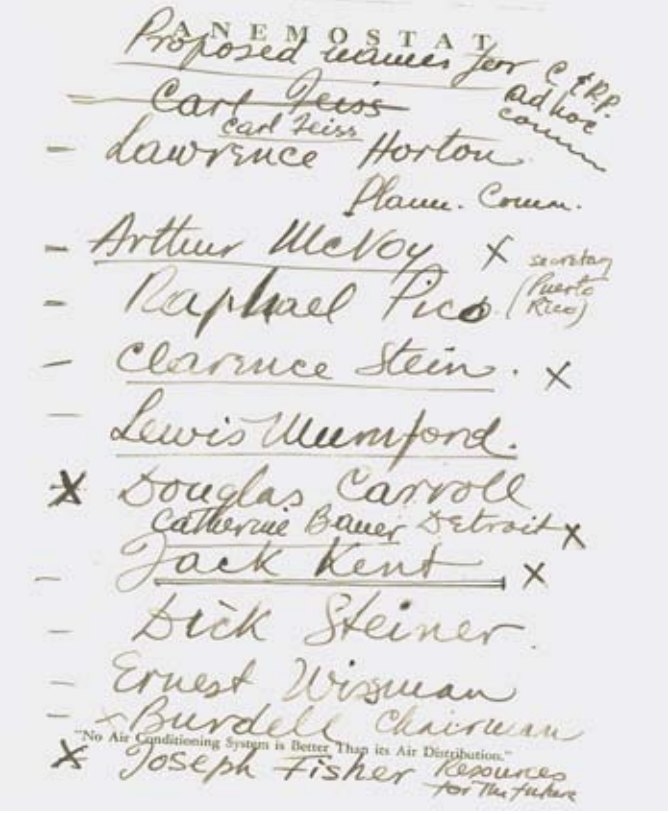
The Burdell Committee & The Doctoral Program

3

Authorized expansion
Social Sciences
First Ph.D.s

Much of the current form of the Department of Urban Studies and Planning owes itself to the far-seeing work of a small group known formally as the "Ad Hoc Committee to Advise President Killian on Educational and Research Activities in the Field of City and Regional Planning at the Massachusetts Institute of Technology." Chaired by Edwin Burdell, then the president of Cooper Union, the committee was charged with determining whether the fledgling Department should expand into a new Center for Urban and Regional Studies and develop a doctoral program, or should become reabsorbed into the Department of Architecture. The Burdell Committee argued strongly for creating a Center "alive to changes affecting cities and regions," noting that "more research and exploration are needed to discover a fitting environment for peace-time living to match and then exceed the research now directed to preparation for war." The committee favored establishment of a Ph.D. program, since it would "add greatly in recruiting research and teaching staff and good students, especially from the social sciences."[11]

Established in 1958, the degree of Doctor of Philosophy in City and Regional Planning, initially required students to have reading knowledge of two foreign languages, and to prepare for an examination in four fields, one of which had to be "planning theory." Other fields included planning techniques; transportation and utilities planning; land-use economics and planning; plan implementation; regional planning; urban design; science, technology, and planning; physical planning problems of developing areas; and social and cultural aspects of planning.



[above] Chairman Edwin Burdell

[left] Proposing committee members

[below, clockwise from top left] Bernard Frieden received the department's first Ph.D. degree, in 1962. A longtime faculty member and noted scholar of housing & urban development, he served as MIT's Chair of the Faculty and Associate Dean of the School of Architecture + Planning.

M. Christine Boyer has had a distinguished career at Columbia, Cooper Union, and Princeton, and was the department's first female Ph.D. graduate, in 1972. Other early women doctoral graduates who enjoyed great academic success include Judith Innes (PhD. 1973) at UC Berkeley, and Rachel Bratt (PhD 1976) at Tufts.

Ngozi Okonjo-Iweala (Ph.D. 1981) [here with Bono at the 2007 Africa-Europe Energy Forum in Berlin] has served as Nigeria's Minister of Finance and as Managing Director of the World Bank.

Calling efforts to limit the independence of the city planning program a "disastrous retreat by the Institute," Burdell's committee sought to enable departmental growth. They also accepted committee member Clarence Stein's plea to continue "broader development of design skills," even while proposing closer embrace of the social sciences.

P Bellusci

The Cooper Union for the Advancement of Science and Art

COPY

RECEIVED
1955
OFFICE OF THE DEAN
ARCHITECTURE & PLANNING

January 20, 1956

Dr. James R. Killian, Jr., President
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Mr. President:

We have the honor to transmit to you our recommendations with respect to the charge given to this Committee in your letter of October 28, 1955, to review the education and research activities in the field of city and regional planning.

We have three principal recommendations:

1. that a Center for Urban and Regional Studies be established within the Institute.

2. that the director of this Center be appointed at the earliest opportunity. We recommend as candidates for the directorship Gordon R. Clapp as first choice and John T. Howard as second choice. Biographical material on these men is available in Professor Adams' office.

3. that the present Department of City and Regional Planning be continued and strengthened. Following the establishment of the Center recommended above, we suggest that you reactiviate negotiations with Gordon Stephenson to succeed Professor Adams as head of the Department.

We have been impressed with the sympathetic understanding which you and other members of your administration have shown toward planning education and research. We hope that this report will be of use to you in charting its future at M.I.T.

Sincerely yours,

Carl Feiss
Joseph L. Fisher
T. J. Kent, Jr.
Arthur D. McVoy
Clarence S. Stein
Edwin S. Burdell, Chairman

The Joint Center

4

Cities and Regions
Research meets Policy
Classic books

Established in 1959, the MIT-Harvard Joint Center for Urban Studies focused on several fields: the structure, growth, and form of the city; the problems of transportation, housing, and regional physical development (both in the United States and in "developing areas"); and the influence of technology, social values, and public policies and controls on planning problems and processes. Co-founder Lloyd Rodwin observed that its research style was shaped by "three lofty aims, two nasty constraints, one extraordinary opportunity, and one or perhaps two twinges of conscience."[12] It aimed at increasing basic knowledge of cities and regions, building bridges between research and policy at all levels, and enriching teaching programs at MIT and Harvard, but was constrained by shortages of money and staff. It embraced the contract research opportunity to develop a new industrial city in southern Venezuela, while still focusing the bulk of effort on Boston and the United States.

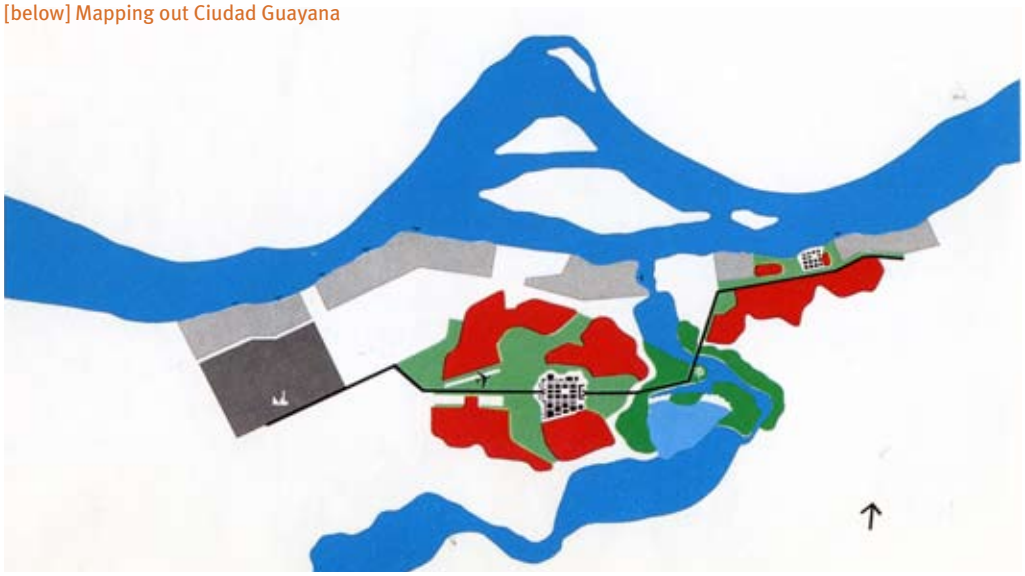
The Joint Center's researchers struggled over their relationship with the people they studied. As Rodwin observed, there is difficulty in identifying community goals and "there is also the problem that the benefits go to one group while the costs fall on another and there is as yet no adequate analytical basis for making interpersonal and intergroup comparisons."[13]

In the end, Rodwin himself admitted to significant shortcomings: "The Joint Center has been much more successful in testing, ventilating, and to a lesser extent generating ideas and serving the educational mission of its two institutions than in solving problems for action agencies; and as for solving problems, it has been more successful far away than close to home."[14]

MIT's Lloyd Rodwin [above far left] and Harvard's Martin Meyerson contemplate a model city, c. 1961

MIT Professor Robert Wood [far right] returned from HUD to direct the Joint Center in 1970

[below] Mapping out Ciudad Guayana



By 1967, Joint Center researchers had produced more than twenty books and thirty monographs, many of them classics. The Joint Center's work, as a whole, was far from celebratory about the prospects of planning.

As the scope and training of planners broadened, they encountered "some of the most withering criticisms of comprehensive planning ever launched."

Ciudad Guayana

5

New citymaking
Regional development

The Joint Center became the advisor to Venezuela's Guayana Development Corporation (CVG) for all phases of city and regional development, what Rodwin called "the largest new city development program in Latin America—and perhaps the world." The project prompted much uneasiness about the Joint Center's "foreign policy." As Rodwin put it, "There was concern about the instability of Venezuelan politics, the fear of being tagged as representatives of Yankee imperialism, the problems of staffing an operation in a different culture.... On the other hand, the proposal presented an extraordinary opportunity to help develop a multi-dimensional strategy for a developing country – to help prepare the economic, social, physical, administrative, and educational development policies for the region, to innovate new methods of analyzing and grappling with these problems, and to develop a series of major studies recording and evaluating this experience. After weighing the pros and cons, the Joint Center chose to grasp the nettle."[15]

In Rodwin's assessment, the joint effort along the Orinoco proved successful: "I do not mean to say that there weren't constraints, limited perspectives, mistakes, squabbles, and other difficulties. There were. These were human beings, with different backgrounds, values and interests, thinking, discussing, disagreeing – often with passion. Nonetheless, there were satisfactory resolutions of most difficulties, and both CVG and the Joint Center parted amicably when the work was completed."[16]

"The planners had concerned themselves with issues of economic efficiency, amenity, social equity, and community. The city as it has evolved is conspicuously lacking on all four counts." Lisa Peattie, *Planning: Rethinking Ciudad Guayana*

[left] Ciudad Guayana 1967

[far left] Ciudad Guayana aerial 1964, and [left] aerial 1967

[below] Ciudad Guayana in 2007, where the population is estimated to be more than 800,000.

Lisa Peattie

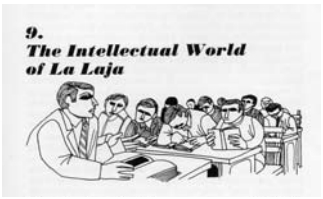
Representation
Critique
Anthropology

"What I did in Venezuela was neither social action, except as a human being with other human beings acts and interacts, nor was it research in the conventional sense, for I had no 'problem,' no 'research design.' I was trying to find out what an anthropologist could learn and say that would contribute to planning in that situation."
– *The View from the Barrio*

"What I found in Guayana was passion, intention, and struggle. The world became politicized for me. Writing became discussion and argument. The anthropology of description would never satisfy me again."
– *Planning: Rethinking Ciudad Guayana*

In 1962 Peattie was appointed "Project Anthropologist" for the Ciudad Guayana venture. She and her children lived for 2-1/2 years in an earth-walled house in the shantytown of Barrio La Laja. In 1968, Peattie became the department's first tenured female professor.

[left] Proposed new market for San Félix. In Peattie's view: "These renderings of places introduce people, residents of the city, quietly enjoying the designers' work, not contending with each other within it or contesting the planners' right to arrange things."



Peattie's fieldwork led to two classic books, *The View from the Barrio* (1968) [chapter headings at left] and *Planning: Rethinking Ciudad Guayana* (1987), which attempted to explain why the rest of the team failed to listen to their anthropologist.

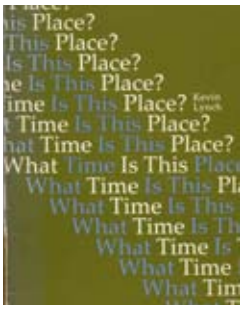
City Image & City Design: The Lynchian Tradition

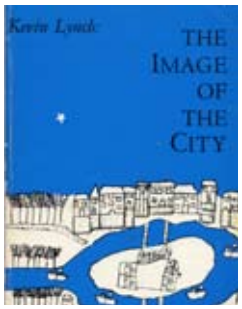
6

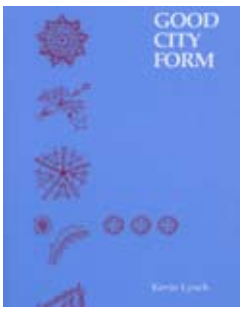
Design and Development
Mental maps
Normative goals

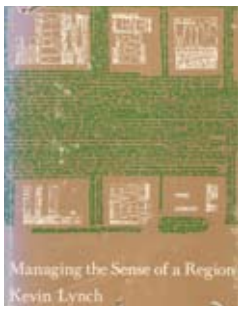
Most of Kevin Lynch's ideas about city form were already percolating during his first years as an assistant professor. As early as 1951, he urged that MIT's department create a new "Center for Urban Research" focused on the "basic question" that would mark his life-long passion: "What should be the physical form of the metropolitan region in the future?" Lynch knew it was an unwieldy and normative question that could not be "answered directly by research." Nonetheless, he argued, "it could be used as a basic direction" and as a means for assessing whether research projects held any "significance".[17] Thirty years later, Lynch wrote *A Theory of Good City Form*. As a *Boston Globe* memorial editorial put it, "Lynch's work was pioneering because, unlike more imperious city planners, he consulted people first and plans second."[18]

A tribute essay written by three of his colleagues observed that, "Throughout his years at MIT, Kevin kept his hand in practice, testing his ideas, forming new ones, making things. He was a brilliant and subtle designer, always looking for those few simple strokes which would both give form to a place and open it to the creativity of its users. He always began with the site and the people who used it or lived on it. He believed in the right and ability of individuals and communities to shape and manage their own environments and pushed gently but firmly at the institutions and governments who hired him to recognize that right. Working nearly always as a member of a team, he entered his ideas in simple words and sketches, letting them sink or swim on their own merits."[19]









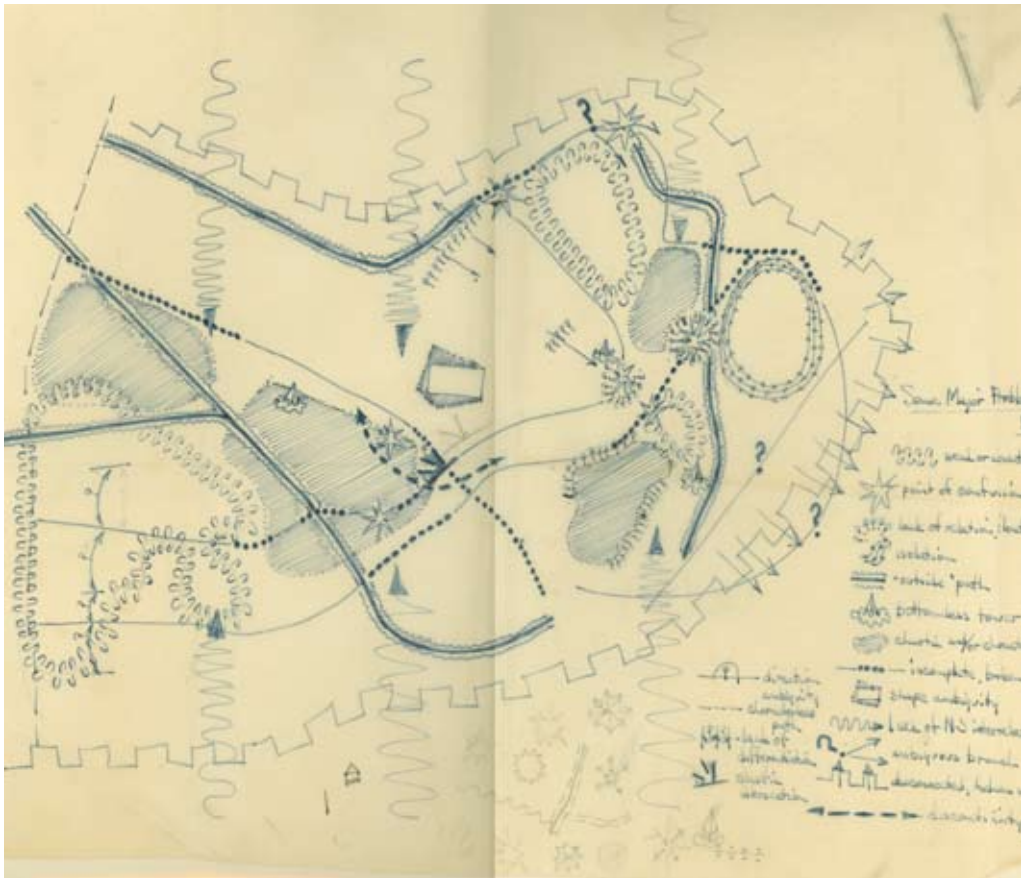
Kevin Lynch, shown seated 2nd from left, studied architecture with Frank Lloyd Wright at Taliesin during the late 1930s.

[above] Composite view of the imageability of Downtown Los Angeles in the late 1950s as seen by its residents.

Kevin Lynch

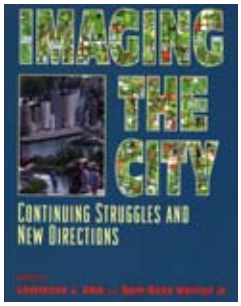
Imageability
City form

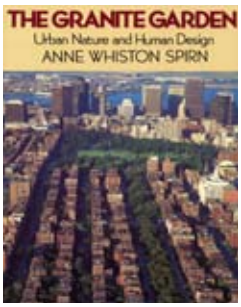
"An environment that facilitates recalling and learning is a way of linking the living moment to a wide span of time. Being alive is being awake in the present, secure in our ability to continue but alert to the new things that come streaming by. We feel our own rhythm, and feel also that it is part of the rhythm of the world. It is when local time, local place, and our own selves are secure that we are ready to face challenge, complexity, vast space, and the enormous future."
—*What Time is This Place?* 1972

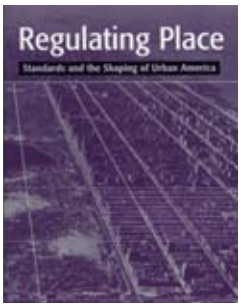


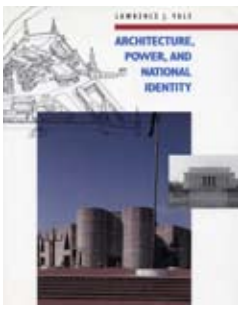
[above] Lynch's classic sketch showing problems with the image of Boston, used in *The Image of the City*.

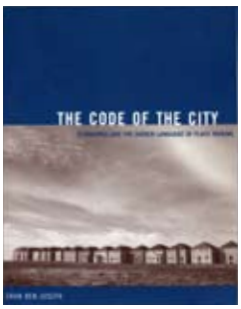
"It is clear that the form of a city or a metropolis will not exhibit some gigantic, stratified order. It will be a complicated pattern, continuous and whole, yet intricate and mobile. It must be plastic to the perceptual habits of thousands of citizens, open-ended to change of function and meaning, receptive to the formation of new imagery. It must invite its viewers to explore the world." – *The Image of the City*, 1960











After his retirement, Lynch worried that the Environmental Design program might fade away, but was heartened by Dennis Frenchman's leadership of the group. Renamed the Joint Program in City Design & Development [CDD] in the late 1990s, it is again headed by Frenchman.

40 years after *The Image of the City*, a CDD colloquium examined Lynch's legacy in the light of new media, published as *Imaging the City*. DUSP's CDD faculty continues to explore issues of land-use and community growth (Philip Herr and Terry Szold), urban design studios in the U.S. and around the world (Gary Hack, Tunney Lee, John de Monchaux, and Dennis Frenchman), questions of design standards (Eran Ben-Joseph), production of urban identity (Lawrence Vale), the role of urban natural systems (Anne Spirn), links between transportation and environmental performance (Christopher Zegras) and connections among city design, public policy, and preservation (Mark Schuster). The Lynchian influence has remained salient in the City Design curriculum, most notably through the Theory of City Form subject, taught by Lynch and/or Julian Beinart every year for more than a half-century.

DUSP biannually presents the Kevin Lynch Award to honor outstanding contributions to the making of places that invoke and capture a generous relationship between an urban place and the people who use it. The diversity of recent awardees includes: Boston's "First Night" (1990); planner Allan B. Jacobs (1999); Chicago Mayor Richard M. Daley (2005); and the planners who championed "The Vancouver Model" (2007).

Planning, The Revolution

7

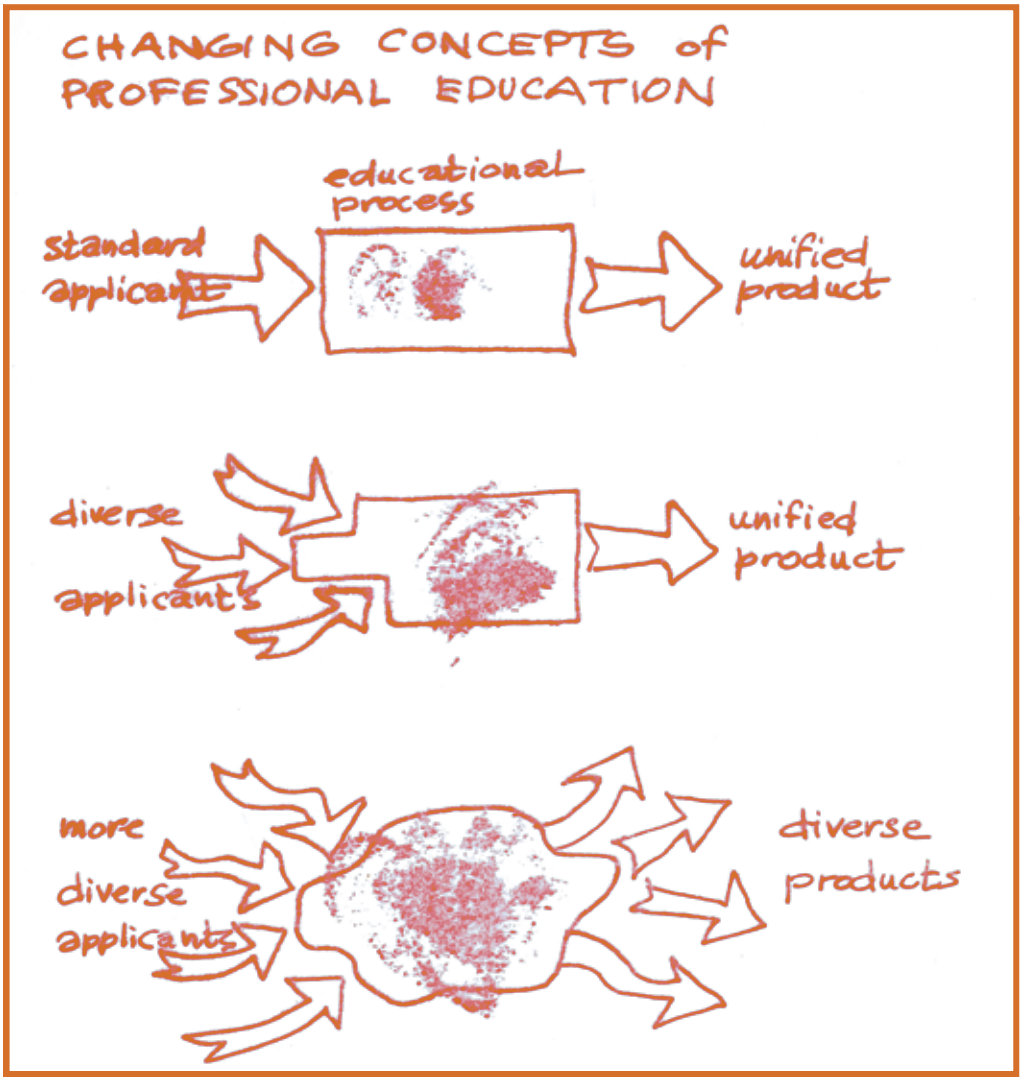
Student revolt
Core-less curriculum
Activism

By 1968, Jack Howard was forced to acknowledge "the changing nature of the city planning field." At MIT, he observed, "Physical environmental change remains a strong element, but [is] now balanced by an equally strong thrust to plan and accomplish social change directly, as well as – and in concert with – socially valuable economic and physical change."[20]

Dean Lawrence B. Anderson captured the sentiment of the day in both sketches and words: "Since old-style professionalism has too often addressed the wrong problems, students and faculty alike are becoming suspicious of the merits of theoretical exercises that lead to 'correct' solutions on paper, especially when they presume to deal not just with physical phenomena but with the welfare of human beings." Planning schools like MIT attracted students because they viewed it as a means to address the "urban crisis". Many of them, Anderson observed, "are now less likely to ask how a plan is to be implemented, and more likely to inquire about who wants to do it and why, and whether it is worth doing."[21]

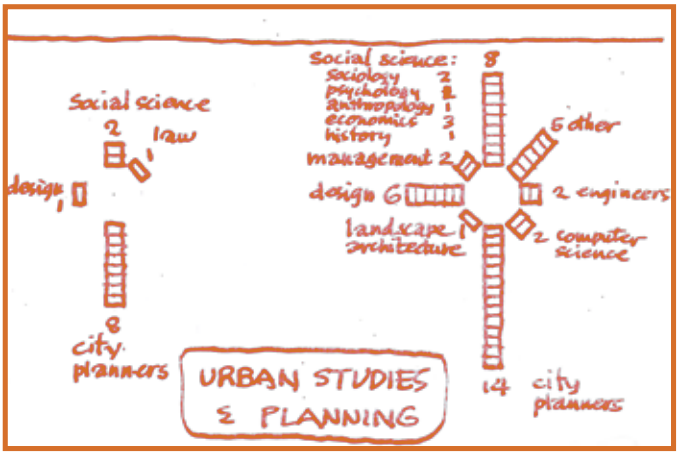
In such a changing intellectual climate, in 1967, students demanded, and faculty agreed, to make studio classes optional, and the Department abolished the last vestiges of a core curriculum in 1968. Howard viewed this 'student revolt' as "an exceedingly well-mannered and good-humored confrontation," one that gained the "full support of both older and younger faculty." That said, he clearly understood that "the students earned the credit for initiating the timely reform."[22]

Four students wrote to complain: "To avoid misleading its students, the Department has largely ceased to lead them at



all. . . While the elimination of core curriculum allowed students to be much more flexible in pursuit of a wider range of interests, it also reduced dialogue on basic issues in and out of planning: in the absence of required or comprehensive subjects, students choose courses that confirm their existing substantive or ideological biases."[23] Despite the flux of the curriculum, interest in the Department reached an all-time high in 1968, with ten applicants for every space in the MCP program.

If the operative metaphor was to be the "academic supermarket," the challenge for faculty was to sort out how to stack the items and name the aisles.

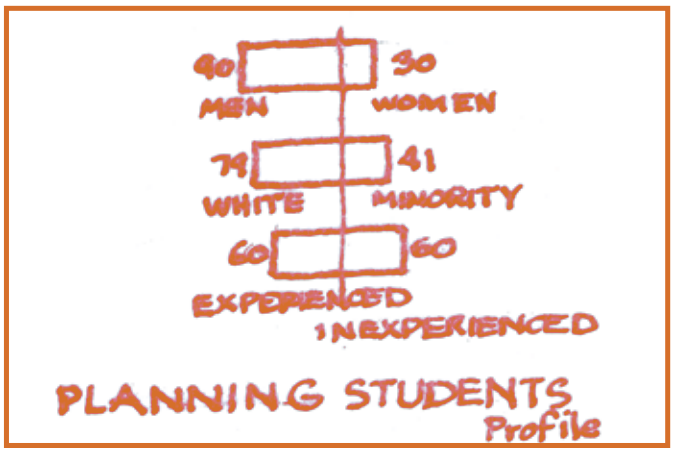


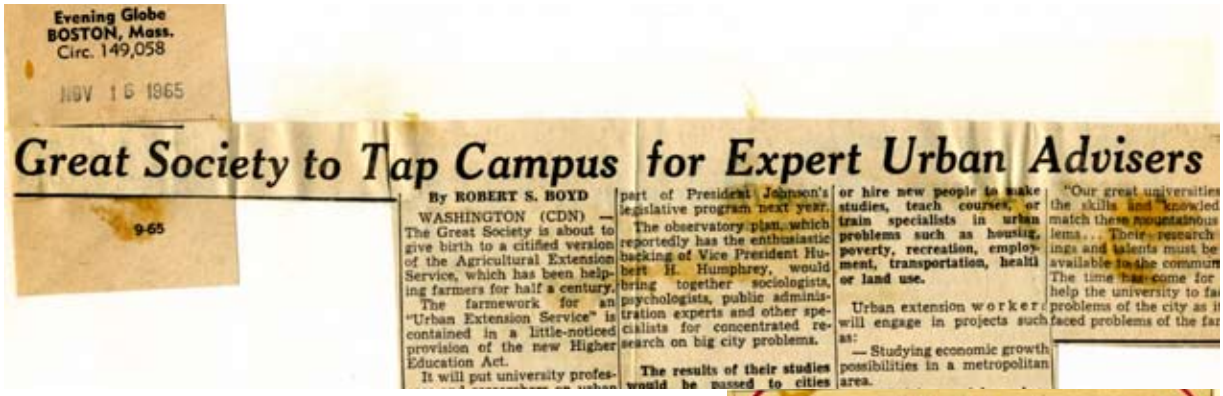
Between 1968 and 1973, the Department made faculty appointments in urban sociology, environmental design, quantitative methods for urban analysis, urban anthropology, operations research, urban law, health planning, urban management, transportation, regional economics, social intervention, communications, urban politics, urban economics, and urban history.

Some faculty, such as Herbert Gans, stayed briefly, while others such as Martin Rein, Joseph Ferreira, Lisa Peattie, Frank Jones, William Wheaton, Ralph Gakenheimer, Gary Marx, Karen R. Polenske, Robert Fogelson, Donald Schön, Bennett Harrison, William Porter, Tunney Lee, and Lawrence Susskind would remain for decades. By the early 1970s the faculty included 3 tenured women, Lisa Peattie, Francine Rabinovitz, and Karen R. Polenske.

In the early 1970s, the department began to achieve greater racial and ethnic diversity, but the student body diversified most rapidly.

In 1968-69, the Department's MCP program enrolled only 2 minority students, and none enrolled in the doctoral program. 4 years later the situation had markedly changed: the MCP program had 23 minority students—46% of the program's domestic enrollment—and 4 additional minority students were registered in the doctoral program. In 1974, the Department could claim that 1/3 of all minority students enrolled at MIT were registered in DUSP. The department increased its efforts to recruit students to work "with and for hitherto underrepresented constituencies," a policy that also included non-minority students committed to diversifying the impact of planning and planners.





Evening Globe
BOSTON, Mass.
Circ. 149,058

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9-65

Great Society to Tap Campus for Expert Urban Advisers

By ROBERT S. BOYD

WASHINGTON (CDN) — The Great Society is about to give birth to a citified version of the Agricultural Extension Service, which has been helping farmers for half a century.

The farmework for an "Urban Extension Service" is contained in a little-noticed provision of the new Higher Education Act.

It will put university profes-

part of President Johnson's legislative program next year.

The observatory plan, which reportedly has the enthusiastic backing of Vice President Hubert H. Humphrey, would bring together sociologists, psychologists, public administration experts and other specialists for concentrated research on big city problems.

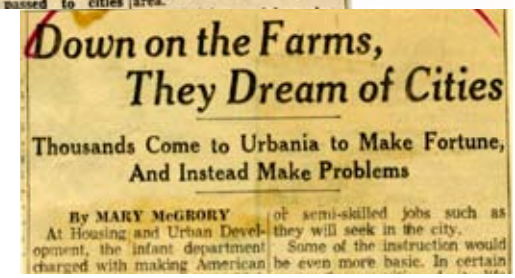
The results of their studies would be passed to cities

or hire new people to make studies, teach courses, or train specialists in urban problems such as housing, poverty, recreation, employment, transportation, health or land use.

Urban extension workers will engage in projects such as:

— Studying economic growth possibilities in a metropolitan area.

"Our great universities the skills and knowled match these mountainous lems... Their research ings and talents must be available to the commun The time has come for help the university to fa problems of the city as i faced problems of the fa



Down on the Farms, They Dream of Cities

Thousands Come to Urbania to Make Fortune, And Instead Make Problems

By MARY McGRORY

At Housing and Urban Development, the infant department charged with making American

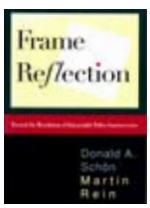
of semi-skilled jobs such as they will seek in the city.

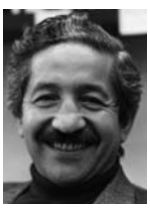
Some of the instruction would be even more basic. In certain

[left] In 1968, Tunney Lee, soon to join the MIT faculty, served as a key designer for Resurrection City, the large squatter encampment on the Washington Mall, constructed parallel and adjacent to the Lincoln Memorial's reflecting pool as part of the Poor People's Campaign for Jobs and Freedom.

Progressive MIT faculty, including Lisa Peattie and Robert Goodman, took the lead in forming Urban Planning Aid. Starting in the mid-1960s several current and future MIT faculty played leading roles in stopping the proposed Inner Belt highway from destroying Cambridge neighborhoods. Such action culminated in the Boston Transportation Planning Review, a comprehensive rethinking of the transport system with extensive and intensive citizen participation.

Closer to campus, the Department, led by Justin Gray, embarked on an intensive effort to staff the city government departments of Cambridge and Somerville with city planning students.





Since the 1960s, social policy scholar Martin Rein [left] has provided trenchant analysis of social reform strategies.

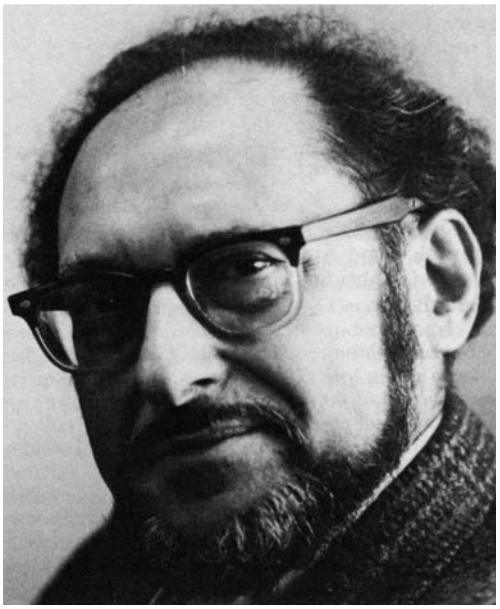
Lloyd Rodwin

Expansion
Social Science
Department Head, 1970-1974

In 1967, Rodwin told an audience at the National Planning Conference that the field was due for significant expansion:

"With riots still a clear and present danger, we're likely to get more urban professorships, more funds, and more talent than in the past; and for this impetus surely the surly radicals in the civil rights movement deserve a plaque in the pantheon of the urbanists."[24]

As department head from 1970-1974, Rodwin helped orchestrate just such a revolutionary expansion of the Department's size and mission.



DCRP to DUSP: What's In a Name?

In 1969, the Department of City and Regional Planning (DCRP) formally became the Department of Urban Studies and Planning (DUSP). The name change, like everything else in the era, reflected a newfound and expanding desire to tackle the problems of the city in as many disciplinary and interdisciplinary dimensions as possible.

"Planning" alone no longer seemed up to the task, especially if the bad planning decisions of the past and present could be seen as part of the problem. In the Department's reinvented form, DUSP graduates did not want to staff the existing planning profession; once again, they wished to change it.

Undergraduate Program

The City Planning course conferred undergraduate degrees between 1935 and 1954. When Lloyd Rodwin became department head in 1970, he reintroduced the program, and its rapid growth was ably led by the young Larry Susskind [top left]. Initially limited to 30 students, it rapidly doubled, and the program developed an extensive array of research and field service activities, with even more students involved with the Department through MIT's Undergraduate Research Opportunities Program (UROP).

[left] Graduate of the undergraduate program, Paul Levy (SB/MCP '74) went on to lead several state environmental agencies before becoming CEO of Beth Israel Deaconess Medical Center.

After the Revolution

After the Rodwin revolution, however, the Department experienced serious growth pains and identity problems. By 1974, DUSP faced "a serious financial bind," saddled with many appointments that had been supported by the "soft" money of contract research and "special" funds that were no longer available. With about 20 junior faculty on tenure track from all manner of fields, department head Langley Keyes and Larry Susskind lamented to Dean Bill Porter that the Department's "phenomenal growth" had nonetheless failed to "create a clear and viable image for itself within MIT."[25]

By the late 1970s continued cuts in outside funding coupled with rising tuition costs and declining job prospects for graduates, especially in the public sector, caused a reduction in enrollment and hampered research efforts. DUSP responded by encouraging faculty to devote more time to sponsored research and initiated new contacts with the private sector.

Planning in Communities

8

Empowerment
Reflection
Engaging race

In 1970, the Department launched the Community Fellows Program, intended to help minority leaders cope with problems of social and economic development within their communities. Fellows came from community development corporations, tenant action groups, private organizations with action and development components, state legislative bodies, community health agencies, media organizations, and academic institutions.

The Department also took concerted steps to increase the enrollment of under-represented minority students in the program, aided by substantial funding from the U.S. Department of Housing and Urban Development. Beginning in 1971, HUD supported 2-year fellowships for ten students each year. Each participant in this Minority Intern Program worked 12 hours per week at a variety of government and community based agencies, and took part in a special weekly seminar called "Planned Change and Implementation."

In 1968, the Department launched the Cambridgeport Ecologue Program, a multi-year effort to develop new participatory methods for engaging the needs of the diverse residential community near the Institute, and helping these residents play more active roles in the planning of their neighborhood. At the same time, the program endeavored to expose students to theory-building efforts around group dynamics, social structure, spatial structure and cognition. Such efforts anticipated the more concerted engagement with "reflective practice" pioneered by the research of Donald Schön.

Melvin King [left, to right of Jesse Jackson] joined DUSP in 1971 as a lecturer, and took over leadership of the Community Fellows Program in 1977, following Frank Jones (who led the program from 1971-1975) and Hubie Jones (in charge from 1975-1977.)

A member of the Massachusetts Legislature since 1973, King ran for Mayor of Boston in 1983. He won the primary with the first "Rainbow Coalition," but lost to Raymond Flynn in the general election.

An example of King's critique of Boston Mayor Kevin White: "I would give the mayor an 'A' for frivolous activity so far this term... In terms of critical issues, I give him an 'F.' He's done nothing in terms of racism and violence in the city, the issue of support for community based economic development, on the schools."[26]

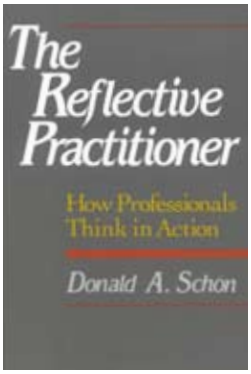
Following King's retirement as Adjunct Professor in 1996, the Department brought in Dr. Ceasar McDowell to lead the Community Fellows Program. McDowell, as Professor of the Practice of Community Development, created the Center for Reflective Community Practice (CRCP), dedicated to empowering communities by helping them to "know what they know."

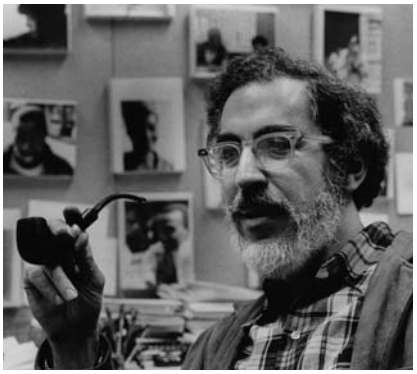
Vital Difference: The Role of Race in Building Community, released in 2004, was the result of a collaboration between CRCP and five community organizations engaged in building democratic participation aimed at addressing racial exclusion.

CRCP focused its fellowships on building sustained relationships with particular communities, most notably the North End of Springfield, Massachusetts. In 2007, Dayna Cunningham joined DUSP as Executive Director of CRCP and, working with several department faculty, launched its reinvention as the Community Innovators Lab.

Donald Schön

Reflection
Experience
Think in Action
Dept. Head, 1990-1992





"After some four years of experiments with a variety of kinds of efforts to help students involved in field work, it is by no means clear to me what they learn through that experience. They may be learning:
– that it is 'hard out there'
– that 'I am incompetent'
– that people out there are 'out to get me.'
Often the real world involvement simply overwhelms the student with more information than he can handle. In this respect, I have come to feel that reality is over-rated!"

Undaunted, Schön started asking tough questions that have remained central to professional education: "What are the conditions for being able to learn from experience? What permits the ability to function when you cannot 'know' in the situation by rigorous standards of knowledge?"[27] First articulated in this way in 1972, these ideas coalesced into notions of "reflection-in-action," articulated in his landmark book, *The Reflective Practitioner.*

Affordable Housing

9

Tent City
Public housing
Self-help

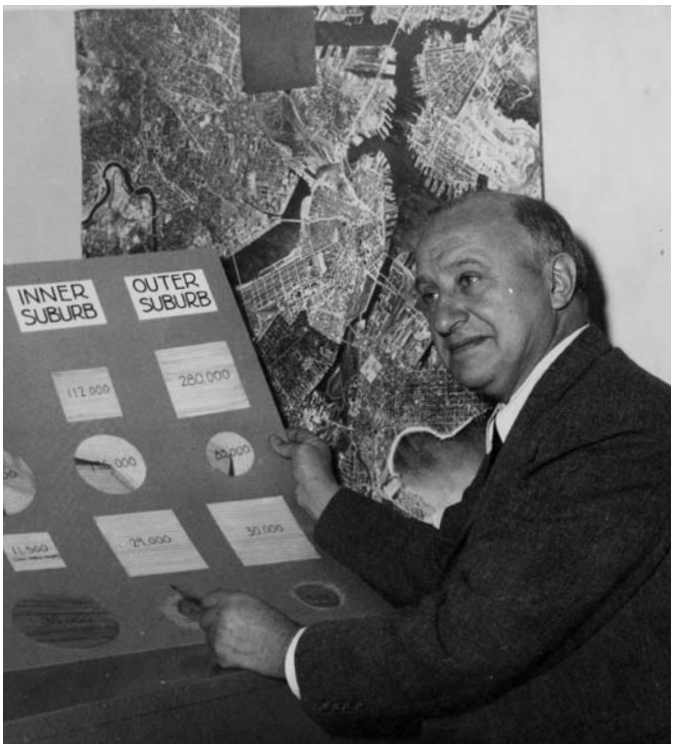
Concern over housing problems preoccupied MIT's course in city planning right from the start. Edwin Burdell taught classes on the relationship between housing and planning during the 1930s and, in 1937, chaired the National Committee on Instruction and Research in Housing. Charles Abrams began lecturing about housing at MIT in 1939, and later joined the faculty. Through his books and worldwide lecturing and consulting, Abrams influenced everything from early public housing legislation, to anti-discrimination efforts, to policies for coping with massive urbanization in developing countries. During the 1960s and early 1970s, John F. C. Turner pioneered ways to deliver vital infrastructure needs to low-income urban dwellers in developing countries through provision of "sites and services" schemes that encouraged self-help housing.

Mel King and others in the Department played central roles in the 20-year urban drama known as Tent City, a struggle over the future of prime land in Boston's South End, adjacent to what is now the Copley Place complex. During the urban renewal of the 1960s, city leaders displaced 100 families from brick apartment buildings on this site, creating a temporary parking lot. On April 26, 1968 local activists led by King closed down the lot, stating "This is a place for people."

Several other faculty, including Lloyd Rodwin, Bernard Frieden, Arthur Solomon, Langley Keyes, Phillip Clay, Lawrence Vale, and Xavier de Souza Briggs, wrote influential books and professional reports on many aspects of low-income housing in the United States.

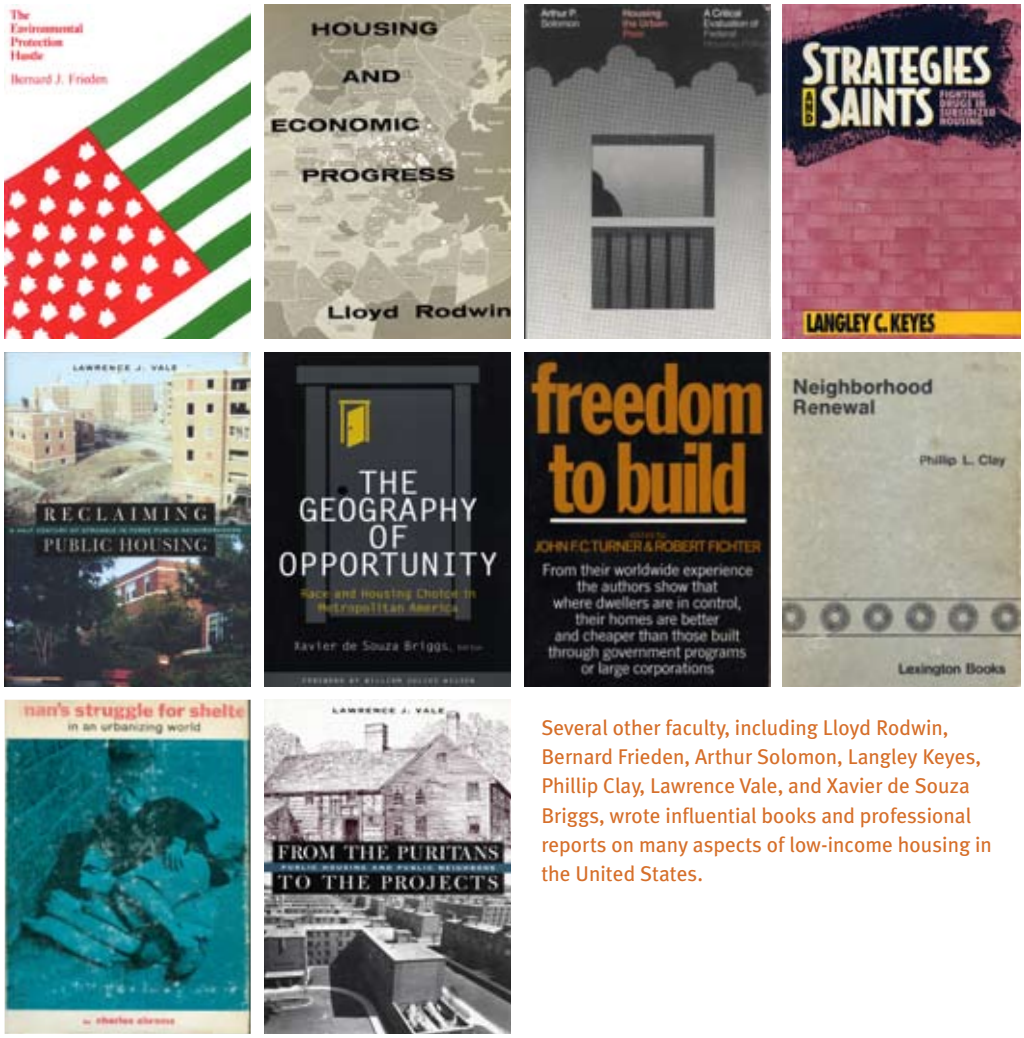
For three days in 1968, up to 400 people lived on this lot [at left] in tents and shanties. Thousands more visited music-filled "Tent City." The protesters departed peacefully on April 30th, having gained widespread press attention and public support.

Eventually, spurred by the persistent demands of the Tent City Task Force and the Tent City Corporation, the Boston Redevelopment Authority retreated from its plan to build an above-ground parking garage and agreed to consider affordable housing options for the site. On April 30, 1988, exactly 20 years after the protest ended and the development work began, Mel King and other activists celebrated the opening of 269 units of mixed income housing, known as Tent City," on the same spot.



Newspapers often looked to MIT for guidance on housing, as in the captions accompanying the images here. [above left] "Cities should contain 'neighborhoods,' says Prof. Adams of Tech, and they should be constructed primarily for children." [above right] "Professors Adams and Greeley....inspect proposed model for a new Jeffries Point in East Boston. Greeley explained that big cities, such as Boston, should try to capture the essence of small and tranquil New England towns."[28]

Charlie Abrams [left], who taught in the Department primarily during the 1950s and 1960s, explored housing problems of many kinds, both domestically and internationally.



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Langley Keyes

Community
South End
Rehabilitation
Department Head, 1974-1978

MIT was very gracious about letting young professors go off into the world and practice what they had been preaching in the academy. In the fall of 1962, I planned to go to law school. Fortunately, in retrospect, it didn't work out. Instead I went to work as a community organizer in Boston's South End where the Boston Redevelopment Authority was proposing ambitious neighborhood rehabilitation. I wrote my DUSP/MIT thesis about planning in the South End and it became a book.

Now, forty years later, I am deeply embedded again in the community, this time as an observer trying to make sense of the meaning of "diversity" over the life of a place which has gone from being the despair of the city to one of its most desirable neighborhoods. In a sense the South End represents the bookends of my career in the community. Revisiting it is anything but déjà vu all over again as the comparative pictures below of Montgomery Park, in 1968 [right middle], and 2007 [right bottom], make clear.

Phillip Clay

Neighborhoods
National Policy
Urban renewal
Department Head, 1992-1994
MIT Chancellor, 2001-present

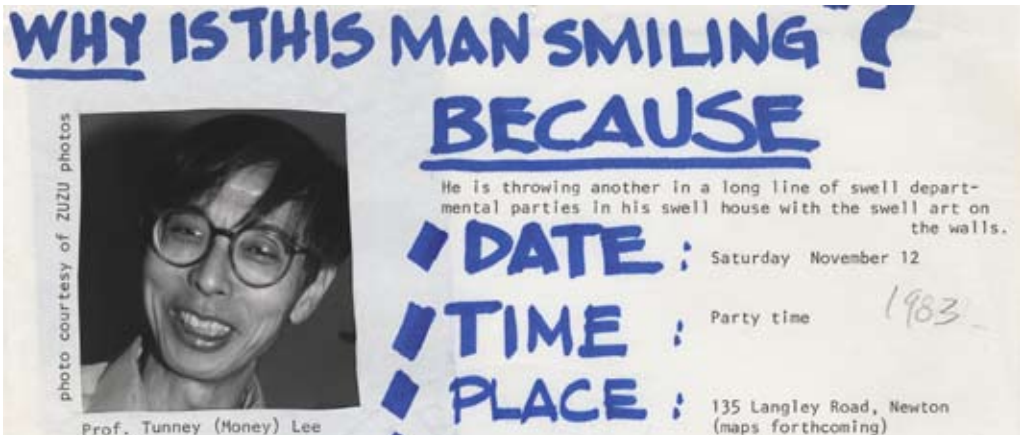
My *Neighborhood Renewal* book makes the distinction between neighborhood reinvestment generated by newcomers – the so-called 'gentrification' process – and reinvestment which is an incumbent upgrading, a function of people in the neighborhood beginning to renew their own investment in the neighborhood. A lot of what is important in the whole process of neighborhood dynamics and community change is really psychological.

In the early 1970s, I worked on a project with community residents exploring how concepts of "defensible space" (Oscar Newman's concept) could be incorporated in this housing development in Lower Roxbury. The principles [were] applied in this project, which survives to this day as the core of a strong and viable community in a former urban renewal area. Below left, the Madison Park groundbreaking, and below right, the townhomes in 2006.

Tunney Lee

Implementation
Community input
Total Studio
Department Head, 1986-1990

It's about understanding institutions:
I mean, you go to a Harvard urban design jury, you never hear any discussion as to who is going to carry out this wonderful thing we've just designed. That's just of no interest to them. In contrast, we would have failed if we didn't inculcate in our students the necessity for understanding the institutional arrangements at the same time as we talk about design.[29]



Lawrence Vale

Reclaiming housing
Design politics
Resilience
Department Head, 2002-present

As a child in Chicago, my family always made a detour to avoid going past the nearby Cabrini-Green housing project, so naturally I developed a fascination for public housing. My subsequent writing has examined the specific socio-political and design histories of particular public housing communities, documenting the active struggles of residents, their advocates, and their detractors.

In South Boston's West Broadway ("D Street") project, redevelopment took more than twenty years to complete, leaving many long-term residents to view the distant promise of revitalization from desolate courts that lingered in neglect. [below center] Design decisions and political processes also come together over questions of post-disaster "recovery." I think of the human resilience displayed by school children attending to their lessons amidst the ruins of post-Bomb Hiroshima [below right] and it makes me more confident about the eventual recovery of post-Katrina New Orleans and Mississippi.

Environmental Policy & Planning

10

Sustainability
Social movements
Science impact

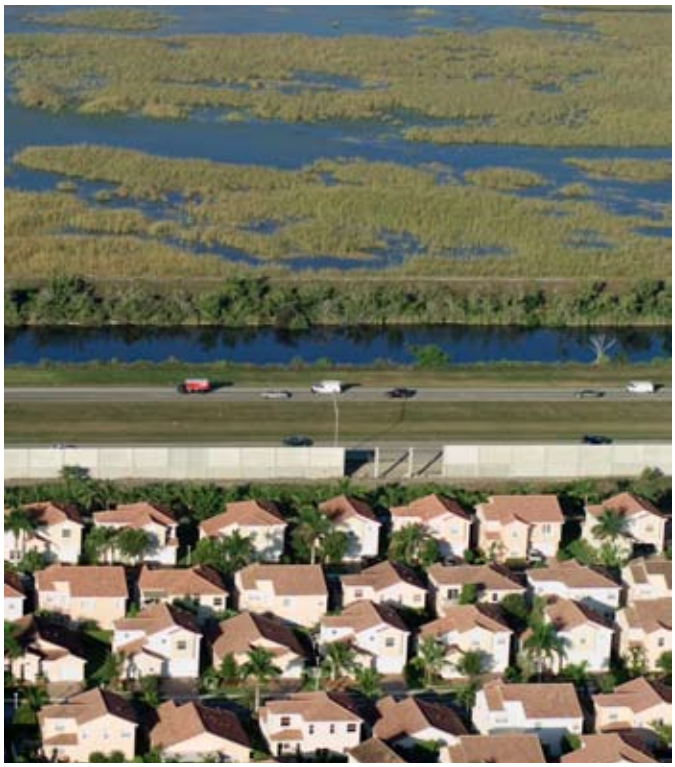
The commitment to environmental policy and planning in the department is deeply rooted in earlier traditions of both environmental design and public policy. Since the 1970s, the department has helped planners to develop new ways to address intractable environmental problems, focusing on methods of alternative dispute resolution. Research and practice activities have ranged broadly and globally: brownfields reclamation, international environmental treaty negotiation, ecosystem management, environmental movements, the role of natural systems in urban areas, and the simulation of environmental futures.

In 1980, Prof. Lawrence Susskind launched a journal, *Environmental Impact Assessment Review*. Susskind also played a leading role in the establishment of the MIT-Harvard Public Disputes Program, part of the inter-university Program on Negotiation and, in 1993, founded a highly influential not-for-profit organization, the Consensus Building Institute (CBI), which hired many DUSP students and alums.

Since the 1990s, environmental policy and planning has embraced a commitment to sustainable development, environmental justice, and the appropriate use of science. In 2004, the Department initiated the MIT-USGS Science Impact Collaborative (MUSIC), a joint effort with the United States Geological Survey and other federal agencies to help sound environmental science better inform the making of public policy. The Department established an Environmental Planning Certificate in 2007, confirming the centrality of environmental issues in the coursework of many DUSP students.

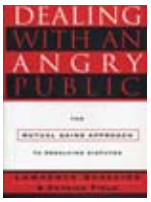
[left] JoAnn Carmin's research on the societal dimensions of environmental governance in transition countries includes studies of NGO and community mobilization as in this protest in the Czech Republic.

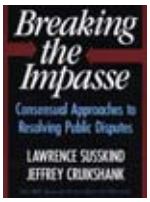
[below] Judy Layzer's investigations of development's effects on the health of the natural environment examine the effectiveness of landscape-scale planning in urbanizing areas across the US, including the Florida Everglades restoration.



Lawrence Susskind

Negotiation
Dispute resolution
Aboriginal lands
Dept. Head, 1978-1982





Can public disputes (land use & natural resource management conflicts) be mediated, and, if so, are the results "better" than what we might otherwise expect? Can the results of global environmental treaty making be enhanced, from the standpoint of the poorest countries in the world? Are there better ways of resolving science-intensive policy disputes so that scientific considerations are given more weight? In the Negev, Bedouin have pressed their land claims for decades. Through the Consensus Building Institute (CBI), I work to help resolve these kinds of disputes. For the next 5 years, I hope to stay focused on issues of resource development on aboriginal lands.

Anne Whiston Spirn

Seeing
Photography
Landscape

Seeing is for me a way of knowing, and photography a form of inquiry. After *The Granite Garden* in 1984, I began a series of research projects on poverty, race, environmental quality, and place, investigations that continue into the present. *The Language of Landscape* emerged from my process of seeing, photographing, and writing; places were my primary sources, and photographs were primary data.

Daring to Look: Dorothea Lange's Photographs and Reports from the Field, my book of never-before-published photographs and field reports by Lange, reevaluates her reputation and describes her camera as "a tool of research." I revisited the places Lange photographed in 1939 in California, North Carolina, and the Pacific Northwest. Below is an irrigation project she documented in Oregon [middle] and the project today [right], where I met ditch riders and farmers who "took farms out of the sagebrush" in the 1930s and learned of the challenges they now face.

The Laboratory of Architecture & Planning

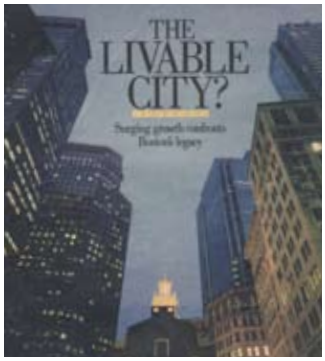
11

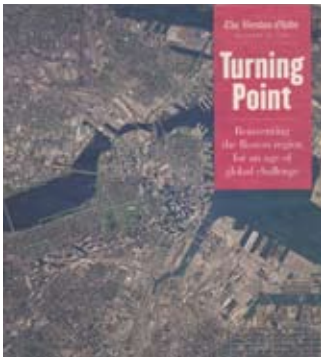
Boston conferences
East Asia
New journals

Dean William Porter founded the School's Laboratory of Architecture and Planning (LAP) in the 1970s to encourage and support field-related research. In addition to many projects related to solar houses and building technology, LAP director Michael Joroff convened scores of professional education programs related to city planning, facilities management, and workplace design, hosted the *Environmental Impact Assessment Review* for many years, and provided the initial home for the MIT-Tsinghua Beijing Urban Design Studio, one of many other activities based in East Asia that continue to this day.

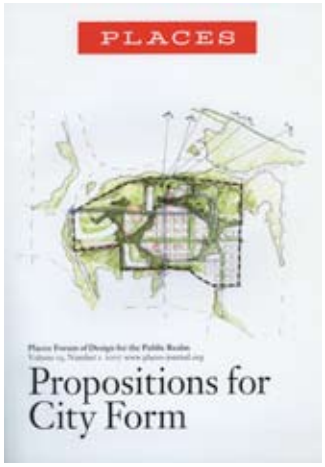
In 1983, under the protective auspices of the LAP, Dean Porter launched *Places: A Quarterly Journal of Environmental Design*, a collaboration between the MIT School of Architecture and Planning and the College of Environmental Design at UC Berkeley. Porter's original Berkeley counterpart was to be Professor Donald Appleyard, a plan cut short by a tragic car accident. Instead, Berkeley Professor Donlyn Lyndon (former head of the MIT Architecture Department) took the editorial helm for the next 25 years.

Another of LAP's lasting contributions was to initiate the first in a series of Boston Conferences, led by Principal Research Scientist Thomas Piper. In 1984, MIT co-convened the initial Boston Conference with the *Boston Globe*, bringing together developers, city officials, architects and planners to examine the city's historic and future development. John de Monchaux opened the first session in a true Lynchian spirit: "We think that a good city would be one whose form is convenient, comfortable, attractive, and inspiring."[30] Among other outcomes, the 1984 conference led to the redesign of Copley Square and to the Boston Civic Design Commission.





Boston conferences have been held in 1984, 1994, 1998, and 2002. The 2002 conference, "Beyond the Big Dig," helped to galvanize public action on the new surface parcels reclaimed by the burial of Boston's Central Artery. FutureBoston, the 2008 edition of the Boston Conference, seeks to develop recommendations and proposals for enhancing Boston's competitive edge in an increasingly globalized world, focusing on three major areas: health, design, and sustainability.



The journal started by MIT and UC Berkeley is now called *Places: A Forum of Design for the Public Realm*, and continues to thrive as a multi-university collaboration.

Gary Hack

Collaboration
Waterfront planning
Institution-builder
Dept. Head, 1982-1986

Many of our students go into regulatory positions. They often find that it's their principal responsibility to *stop* abuses, to *stop* water from being polluted. They may forget that there's another side to the coin. What would you do along a river if you finally cleaned up the water? Our field has a social responsibility to be inventing things that are better than we know about.[31]

In the 1990s, we were engaged by a New York task force to break a deadlock over how to replace the collapsed West Side Highway and make the Manhattan waterfront accessible. We concluded that less was truly more: a waterfront boulevard, piers converted to recreation uses, and a park extending 4 miles along the waterfront. Our planning consisted of identifying the opportunities and creating what was possible.

The Center for Real Estate

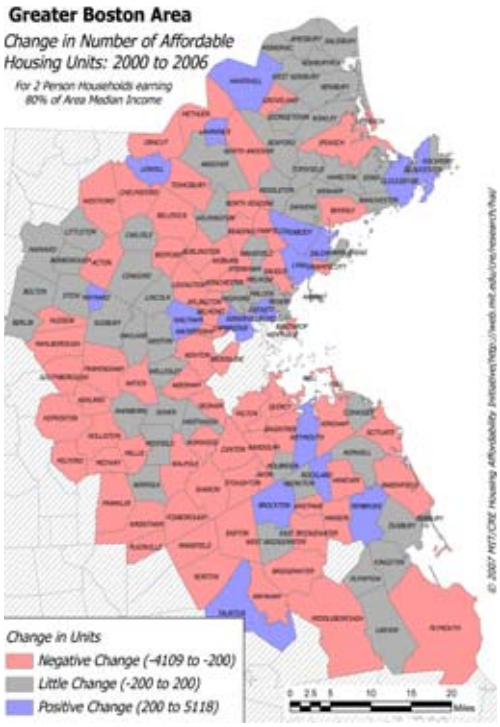
12

Urban economics
Finance
Development

Founded in 1983 through the leadership of DUSP faculty members Gary Hack and Lawrence Bacow and the central initiative of Charles H. (Hank) Spaulding, MIT's Center for Real Estate Development (CRED) was the first such center to be based in a school of architecture and planning. Spaulding served a two-year term as the Center's inaugural director, with Bacow as director for education and research. The Master of Science in Real Estate Development (MSCRED) degree program gained MIT Faculty approval a scant six weeks before the January 1984 deadline for applications, yet received 1,000 requests for materials and 225 completed applications. 35 of 36 of those who were accepted chose to come – by far the highest yield on admissions of any program at MIT. "I was a bit concerned given the timing of things that we were spending a lot of money and time developing a terrific program and nobody would show up," Bacow noted a few months after the program started. "But I am delighted to say that this was not the case."[32] In the early 1990s, responding to a downturn in the real-estate market, the Center dropped the word "Development" from its name, but CRE continued to focus on both finance and development issues. Today, the Center for Real Estate has a thriving master's program, an industry-relevant research program, and a global presence.

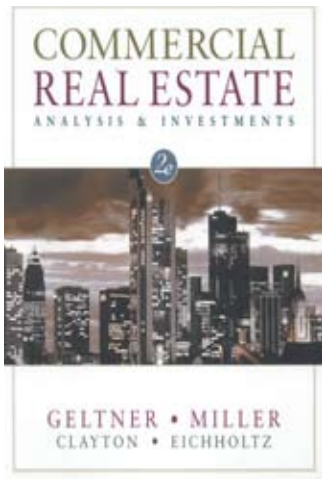
[counterclockwise from top left]
- Former CRE Director Bill Wheaton;
- Founder Hank Spaulding and Director David Geltner;
- Chairman Tony Ciochetti in China;
- Hank Spaulding, Larry Bacow, and Mary Ann Taylor, CRED's first full-time employee in 1984, at the opening of CRED's new space in MIT's Armory.
- Group work at CRE, circa 2000
- Professor Larry Bacow with members of the CRE class of 1992

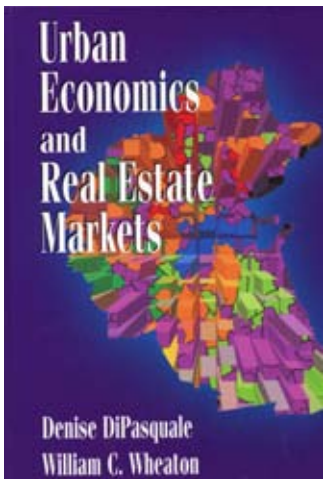
CRED founder Hank Spaulding argued for a strong relationship between developers and the university: "There is relatively little money spent on research in our business; as compared to the medical, chemical, and electronics business, and yet shelter is one of the necessities of life. We need to give people more technical and management skills to deal with complex projects. The regulatory & environmental issues need to be better understood by practitioners in the development business."[33]

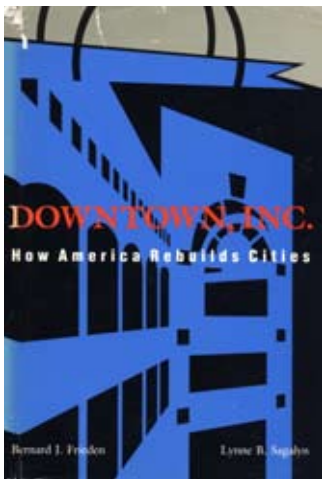


[left] Affordable housing in the Greater Boston Area, from the CRE & DUSP Housing Affordability Initiative (HAI), a long-term commitment to focus the considerable resources of MIT on housing affordability issues.

[below] CRE Director David Geltner and former Director Bill Wheaton have each co-authored major textbooks in the field. Bernie Frieden and Lynne Sagalyn's work examined the growth of public-private development partnerships, and Henry Pollakowski has edited the *Journal of Housing Economics* from his base at CRE.







International Development

13

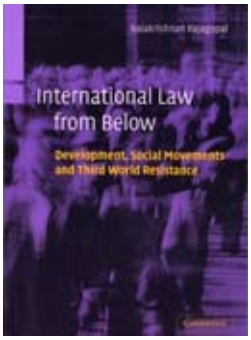
Political economy
Development policy
SPURS/Humphrey

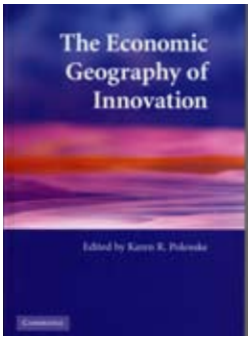
The Department has been engaged in international development scholarship and practice since at least the 1950s. From the early work of Adams, Howard, and Greeley in India and Bangkok, through the ambitious multi-dimensional adventure of planning Venezuela's Ciudad Guayana, the Department has sought global outreach and influence. In 1967, Lloyd Rodwin launched the Special Program for Urban and Regional Studies of Developing Areas (SPURS), which has to date brought to MIT more than 600 mid-career professionals from 90 different countries, including many Hubert Humphrey Fellows. Always an attraction to international students, in 1984, the department formally added a specialized MCP degree option for planners focused on "developing areas".

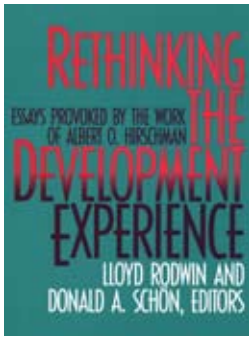
Today's International Development Group (IDG) conducts research and assists in the planning practice in countries around the world striving for social, political, and economic development. IDG faculty members examine the urban, regional, and national socioeconomic impacts of major public and/or private investments, and address problems of squatter housing, municipal finance, metropolitan sprawl, and social disparities at a variety of scales. Aided by a variety of "Practica" subjects and field-based research on several continents, DUSP's curriculum in international development provides an integrated institutional and historical view of economic, physical, political, and social factors.

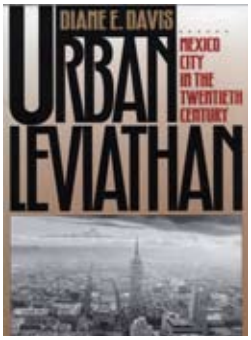
[top] The 1969-70 SPURS group including among others Lisa Peattie, Lloyd Rodwin, John F.C. Turner, William L. Porter, John Harris, and Ralph A. Gakenheimer.
[above] SPURS Director Bish Sanyal with the 2007-2008 SPURS & Humphrey Fellows

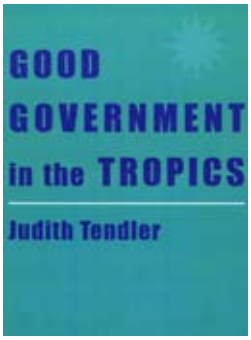
Sanyal observes: "Changing circumstances require that we consider the mid-career international fellows not as agents or technology transfers but as partners in the joint production of knowledge. In a multi-polar world, our global network, not our military might, will be the key to prosperity as well as peace."

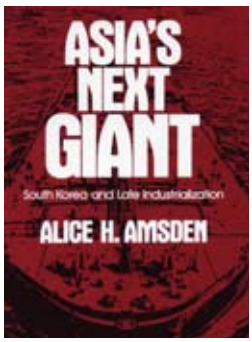












[top left] John Friedmann, a distinguished urban planning theorist and educator, began his career in MIT's DCRP during the 1960s.

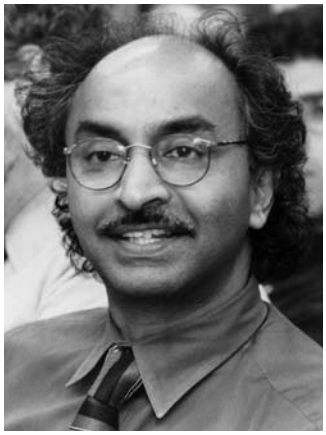
Since then, faculty have worked on every continent, including extensive scholarship by Diane Davis in Mexico [bottom left], and analysis of the institutions and processes of development by Balakrishnan Rajagopal.

[center right] Since 1992, Judith Tendler (below coconuts) has run five projects with groups of students in Brazil, a prize-winning combination of teaching and field research.

[bottom center] Political economist Alice Amsden has authored noted books examining the theoretical and institutional processes of 'late' industrialization.

Bish Sanyal

Interconnections
Institutions
Developing nations
Department Head, 1994-2002



In writing *Comparative Planning Cultures*, I learned that there is no cultural nucleus, no social gene that can be decoded to reveal the cultural DNA of planning practice. Planning culture, like the larger social culture in which it is embedded is in constant flux, because of the continuous process of social, political and technological changes....

Planning cultures should be viewed in this dynamic way, in contrast to traditional notions of culture that are used to evoke a sense of immutability and inheritance, so as to go beyond "cultural essentialism" which, in essence, is an exclusionary, parochial, and also inaccurate representation of history.

Karen R. Polenske

Energy security
Regional disparity
Land recycling

Little did I realize during my first field trip to Shanxi Province (which produces 40% of Chinese coke) that I was recording the beginning of a rapid transformation in cokemaking technologies. This “hole-in-the-ground” indigenous oven site south of Jiexiu is the earliest type of oven [above left] - most closed as of 2000. The workers put metallurgical coal into the rectangular pit, covered it with straw, and set it afire, where it took 2 weeks to form coke.

Above right is a coke push at Taiyuan Iron Steel in 2000. Coke-pushing has made cokemaking one of the top polluting industries in China. Some plants have installed covers on their quenching cars, as efforts to reduce pollution. Now, clean coke ovens, where gases, tar, and particulates are combusted inside the oven, are being installed in China. It is an environmentally friendly technology, but is it contributing to a sustainable economy?

[left] Between 1958 and 1960, the firm of Adams, Howard, and Greeley helped develop a 30-year land-use plan for Greater Bangkok. Samuel Cullers, the department's first African-American graduate, led the Bangkok-based team. (The Thai year 2533, using a Buddhist calendar, is the equivalent to 1990.)

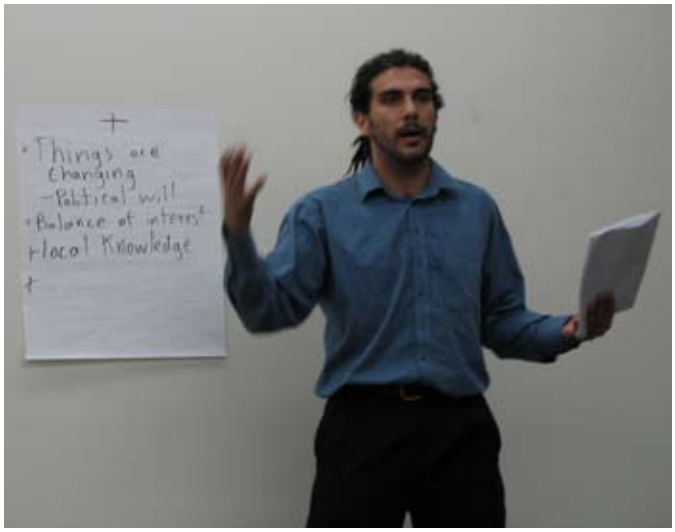
[left] In 1996, DUSP faculty again assisted municipal officials in Bangkok with a new plan, this time led by Gary Hack and Ralph Gakenheimer.

Practica

14

Synthetic planning
Client orientation
Reflective practice

The Department has emphasized field-based learning opportunities for many decades and, in 2002, formally introduced a "Practicum" requirement into the MCP curriculum. These workshop-style subjects provide students with experience in the practice of city and regional planning by providing the opportunity to synthesize planning solutions within the constraints of real scenarios faced by clients in locales ranging from Massachusetts to Mexico to Mozambique. Each practicum seeks to place students and faculty at the leading edge of planning practice by exploring innovative ways to integrate planning disciplines, to work with communities, apply reflective practice and connect theory and practice. These practica share several characteristics: the making and testing of proposals; the involvement of constituents in a particular place; the deployment of interdisciplinary approaches and team-teaching; the exploration of multiple methods for addressing problems. During the first six years of the requirement, Practicum coordinator Karl Seidman oversaw workshops covering all areas of the department, working in settings that ranged from central cities and suburban areas in the United States to urban, peri-urban and regional areas in both developed and developing countries. In many cases, the Department has established strong multi-year partnerships with particular clients and communities.



Starting in 2004, Lorlene Hoyt, assisted by Langley Keyes, introduced a multi-year practicum based in Lawrence, MA, one part of the broader MIT@Lawrence project, a HUD-funded Community Outreach Partnership Center.

In 2005, students led by Jennifer Davis spent a month in Mozambique developing action plans to improve water and sanitation services to Maputo's poor.

[above] In 2006 & 2007, Diane Davis and Christopher Zegras conducted practica in Mexico City with the NGO Metrópoli 2025 and a local university, emphasizing "metropolitanism from below," sustainability through interventions that build on local community assets.

[below] In 2006 and 2008, Balakrishnan Rajagopal, founder of MIT's Program on Human Rights and Justice, led DUSP practica in the Indian state of Gujarat, focusing on issues of Dalit rights and sanitation in the effort to end caste-based manual scavenging of human waste.

DUSP in New Orleans

15

Recovery management
Capacity-building
Implementation

In the aftermath of Hurricane Katrina, which struck the Gulf Coast of the United States in August 2005, the Department embarked on a sustained and multi-faceted engagement with New Orleans and surrounding parishes. This has included long-term neighborhood rebuilding efforts linked to a variety of DUSP's practicum and economic development classes; affordable housing initiatives aimed at achieving energy savings; capacity-building of local not-for-profit organizations; community organizing; planning and technical assistance support to community-based, labor and governmental economic development organizations; and environmental education and remediation.

Several faculty members have worked to promote scholarly and practitioner dialogue on a variety of rebuilding issues, through publications and participation in a variety of conferences. In the summer of 2007, the Department organized more than a dozen MIT interns to work at the New Orleans Office of Recovery Management, more than doubling the size of the staff. Since then, working through DUSP's Community Innovators Lab (CoLab), students and faculty worked to develop systematic ways to reflect on what they have been learning, have sought ways to deepen the community engagement with local organizations, and endeavored to nurture local capacity for comprehensive participatory neighborhood rebuilding.

MIT students worked with several ORM department heads, including Alvin Harrison, director of Population and Resettlement [standing upper left]. DUSP's Phil Thompson [upper right, with three students] led a 2006 Practicum based in the Tremé neighborhood and inspired many of the Department's activities in the city. Students saw first-hand the devastation caused by failed canals and levees.

TARGETED RECOVERY AREAS

In line with a plan announced in March to focus public resources on target zones across New Orleans, Mayor Ray Nagin's recovery office has identified more than 160 projects, most of them in the zones, as priorities for rebuilding, according to a draft report obtained by The Times-Picayune. Costs are based on estimates by the city, FEMA, developers and neighborhood groups and may reflect property values and comparisons to similar projects. Cost estimates are subject to change.

REBUILD

REDEVELOP

[left] MIT's ORM interns proposed 6 projects for NOLA's 17 "Targeted Recovery Areas," focusing on New Orleans East Plaza, Harrison Avenue, South Claiborne & Toledano, North Claiborne & St. Bernard, Gentilly & Elysian Fields, and Broad & Lafitte.

[below] As part of the Main Streets practicum, DUSP students worked with a citizens' group to produce designs for the Lafitte Greenway, a 3.1 mile linear park for bikes and pedestrians that was written into the Recovery Plan as one of ORM's first priority projects.

DUSP in China

16

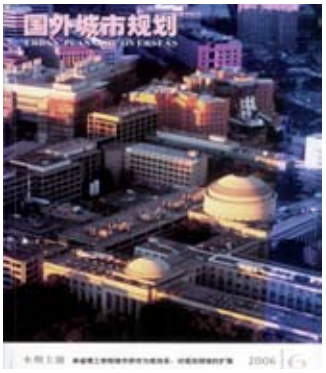
Beijing studios
CPN
Urbanization Lab

Since the 1980s, faculty and students from DUSP have become increasingly engaged with all facets of China's urbanization. In 1984, MIT launched the biannual Beijing Urban Design Studio, an ongoing series of summertime partnerships bringing together faculty and students from MIT and Tsinghua University, led on the MIT side in most years by Dennis Frenchman and Jan Wampler. Other long-term engagements with China have included the Beijing Urbanization Lab, research on China's energy use and land recycling, and studios based in the Pearl River Delta that have explored innovative approaches to housing and environmental sustainability.

In 2003, at the initiative of DUSP graduate students from China, the newly founded China Planning Network (CPN) embarked on an ambitious series of conferences aimed at improving the dialogue between Chinese policymakers and a wide variety of scholars and practitioners in the West. Following two small conferences held in Cambridge during 2004 and 2005, in 2006 CPN held its conference in Beijing, co-sponsored by China's Ministry of Construction, and attracted more than 1,000 participants. To coincide with this, DUSP's peer-reviewed journal *Projections* featured an issue on "Planning in China." In 2007, CPN held another successful conference in Beijing, this time focused on addressing China's transportation challenges. That same year, the Chinese journal *Urban Planning Overseas* devoted an entire issue to the research of DUSP faculty, including Chinese translations of 14 recent articles showcasing all areas of the Department.

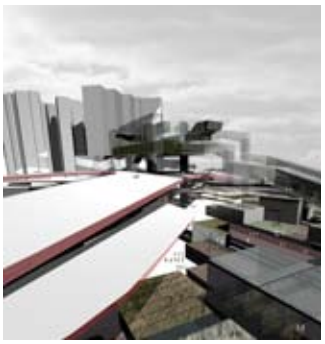
Since 1984, about 200 students from the School of Architecture and Planning have spent summers working with 200 of their Chinese counterparts in Beijing, while also taking time for study tours of such places as Shanghai, Suzhou, and Shanxi province.

In June 2006, DUSP's presence in China coalesced with the CPN Beijing Conference and the signing ceremony to inaugurate the Beijing Urbanization Lab. Publications included DUSP faculty essays in *Urban Planning Overseas* and printed conference proceedings.



[left] In 2006, the Beijing City Planning Exhibition Center, adjacent to Tiananmen Square, hosted a major retrospective show highlighting the contributions of the first twenty years of the MIT-Tsinghua Urban Design Studio.

[below] Student work from the 2006 studio included these proposals for a transportation center.

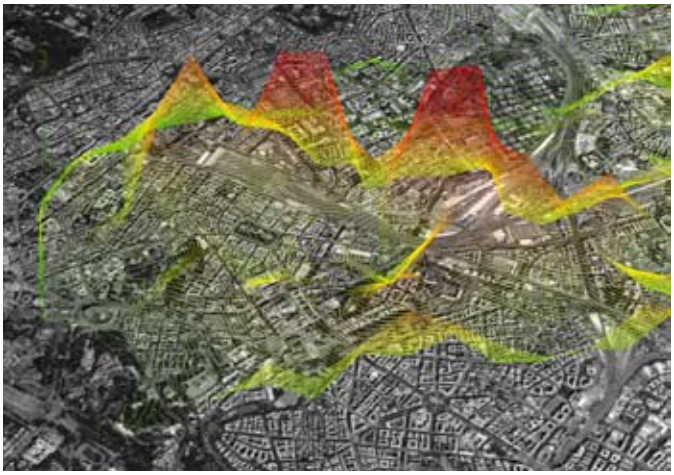


Technologies & Cities

17

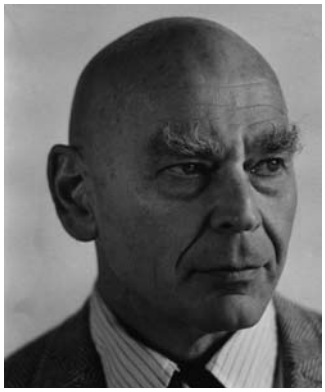
Computational methods
Urban Information Systems
Responsive Cities

MIT's course in city planning embraced the advantages of its embeddedness in an Institute of Technology right from the start. In 1951, Kevin Lynch urged his colleagues to launch a research center that would "lean heavily toward the influence of technology on metropolitan form." He presciently called for expanding the department's agenda to include "the role of communication and transportation in the urban environment" and to be open to "new possibilities of recently developed technical means and theories."[34] Led by Prof. Aaron Fleisher, the department was a pioneer in introducing computers to the teaching of city planning, in 1961. Fleisher, initially trained as a meteorologist, developed a series of computer experiments dealing with urban form, transportation networks, location choices, and travel paths. He also led the way in developing computational methods for handling "urban information systems," joined in this work by mathematical sociologist Prof. James Beshers. The Department embraced the personal computer during the 1980s. By the 1990s, Prof. Joe Ferreira's "Planning Support Systems" group made extensive use of Geographic Information Systems (GIS) software, both as a pedagogical necessity and as a tool for research. In 2004, Carlo Ratti opened the SENSEable City Lab, part of a growing initiative to use information technology to make cities more responsive.



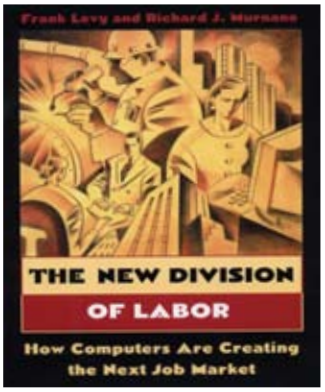
[left] The SENSEable City Lab's Real Time Rome project, exhibited at the 2006 Venice Biennale, uses data from cell phone locations to produce innovative maps of the city and its use.

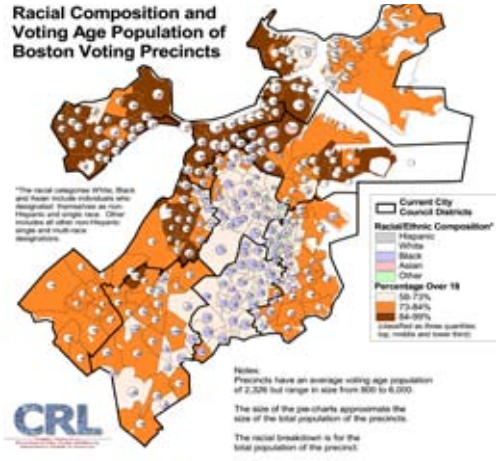
[below] In Zaragoza, Spain's "Digital Mile," Dennis Frenchman, William Mitchell, Carlo Ratti and their teams have explored innovative ways to use digital media to enhance the experience of the public realm.



[left] Professor Aaron Fleisher

[right] Labor economist Frank Levy's work has explored how computers have changed the nature of the job market and the skills needed to prosper.





Joe Ferreira [above left] who helped develop MIT's Project Athena in the 1980s, led the Planning Support Systems group and Computer Resources Laboratory (CRL) through the 1990s, pioneering new directions in Geographic Information Systems. At right, an example of CRL work.

Changing Cities: Is there a DUSP way?

18

Planning
Urban Studies
Change

After 75 years, the Department's faculty, students, and alums remain committed to finding new ways to make a difference in the world. Four questions serve as ways to organize DUSP's responses to this challenge.

Can we design better cities?
Can we help places grow sustainably?
Can we help communities thrive?
Can we help advance equitable world development?

In 1992, a committee chaired by Donald Schön released the Department's long-range plan, intended to chart the future of DUSP over the next 10 to 15 years. That plan provided the structure of program groups and research clusters that has prevailed since that time. Now, however, DUSP has reached the end of that planning period, and must look forward to future changes. Some things, however, have remained remarkably constant:

•DUSP has taken an expansive view of planning and planners, which has both forged new opportunities and challenged DUSP's collective identity as a single Department;

• DUSP has stayed focused on getting things done in the world, not just having ideas;

• DUSP has retained a deep interest in the politics and institutional processes that shape ideas and make it possible act on them democratically;

• DUSP fosters a positive approach to technological transformation as a major force of social change;

• DUSP trusts that the built environment can meet the needs of diverse populations and serve as a source of meaning in their daily lives:

• DUSP's appetite for global and comparative thinking and doing continues to grow;

• DUSP remains committed to the disadvantaged, to helping them develop and use their own voices and skills to make empowered decisions.

Taken together, these shared premises and practices reveal DUSP's moral vision for professional education, engaged scholarship, and public action.

Changing the city-regions of an imperiled planet urgently requires all this, and more.

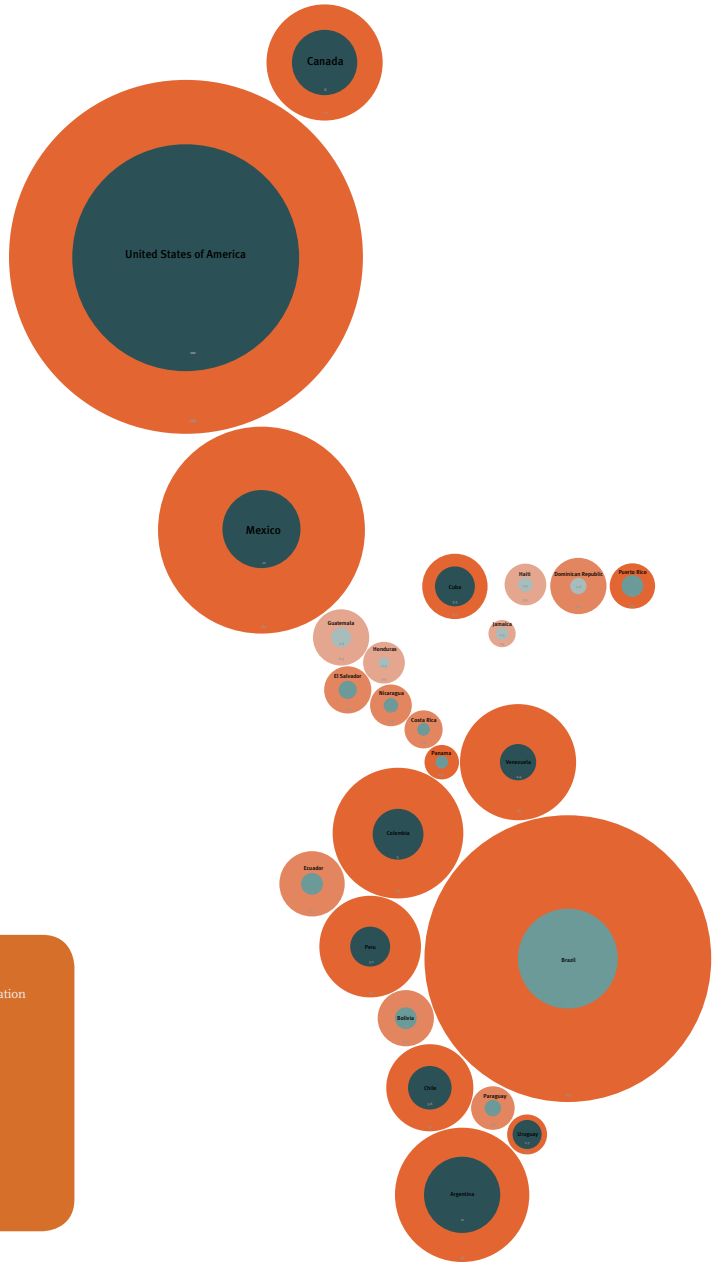
A Growing Department

Rooted in the land-use planning traditions of the 1930s, over its first 75 years MIT's program in City Planning has pioneered new ways to analyze and enhance the physical form of cities, embraced the social sciences, expanded into studies of comparative planning and development practice around the world, and developed novel ways to negotiate effective action, nurture supportive technologies, and encourage reflective practice. Always, MIT faculty and alums have consistently sought to lead the planning profession, challenge its boundaries, and expand its reach.

An Urbanized and Urbanizing Planet

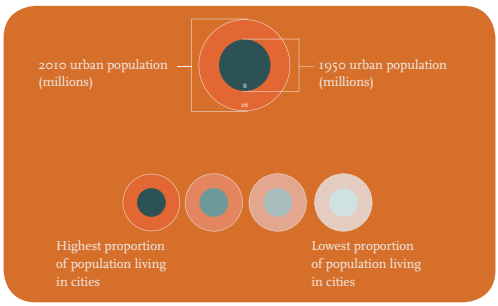
The urbanizing world is shown here as the total urban population of world countries in 1950 (inner circle) and projected for 2010 (outer circle.) The difference in area between the nested circles represents the total increase in urbanized population during this period. Intensity of color reveals the proportion of the entire national population living in cities, with the palest shades depicting more rural places and the darkest shades highlighting the most urbanized.

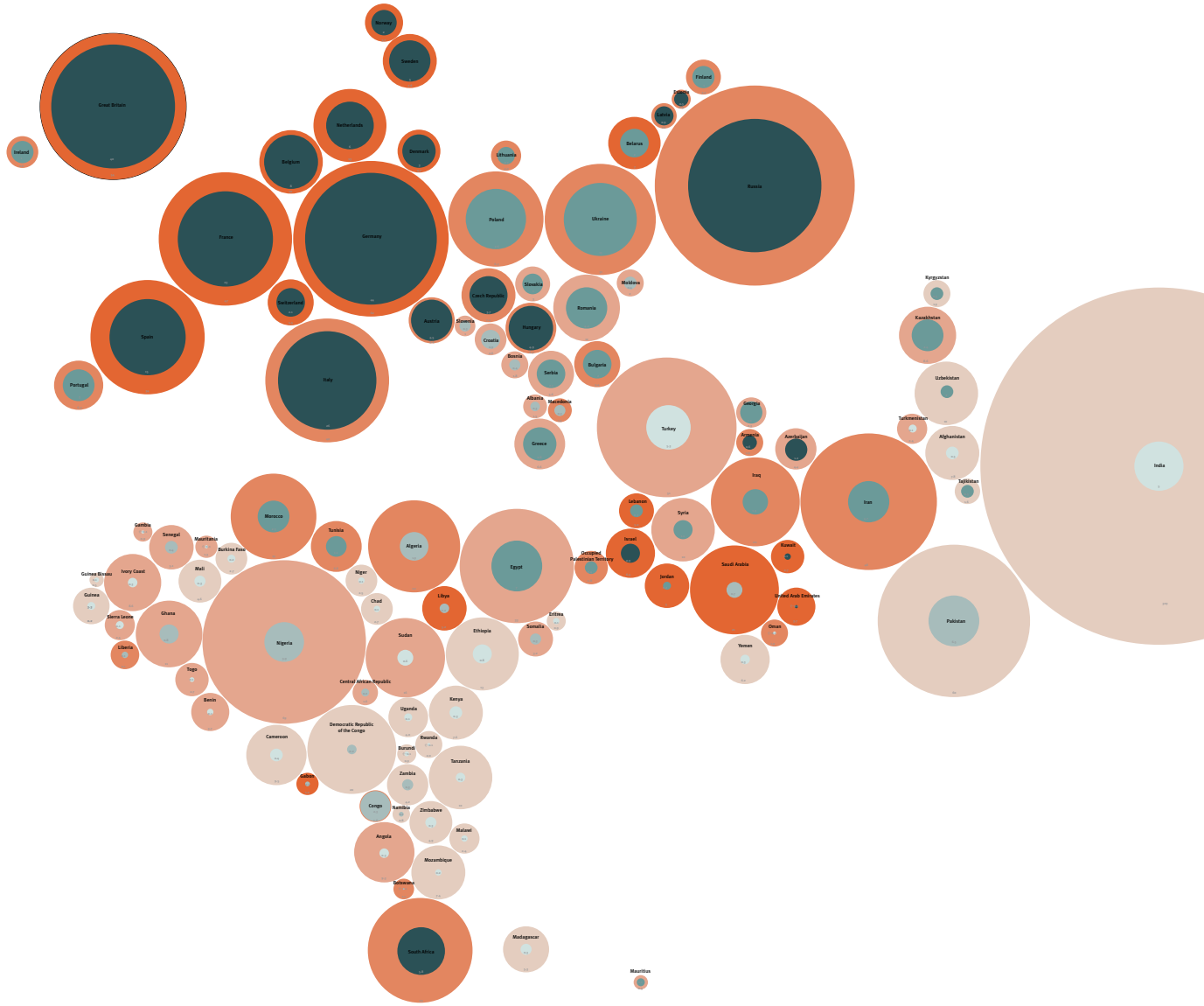
Data from the World Population Database 2006. Copyright United Nations 2007. Source http://esa.un.org/unpp.



Key

Proportion of population living in cities: Colors represent quartile ranges for percentage of urbanization within each country's population. 1950 and 2010 are calculated independently.

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Burkina Faso
Mali
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Sierra Leone
Liberia
Ghana
Nigeria
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Cameroon
Gabon
Zambia
Congo
Namibia
Zimbabwe
Angola
Malawi
Mozambique
Botswana
South Africa
Madagascar
Mauritius

Appendix I: Here We Go Again: Recurring Questions Facing DUSP

February 8, 2007

Langley Keyes
Lorlene Hoyt
Anne Whiston Spirn
Lawrence Susskind

Section A. History[1]

In 1933, DUSP began its life as an undergraduate division in the School of Architecture. The five year course awarding a BA in City Planning was joined in 1935 by a graduate program leading to an MCP. That program's philosophy was clear.

> The curriculum is based on the recognition of the fact that the solutions of all planning problems-whether of city, region, or state-depend on the proper coordination of all the factors involved-not only those in the fields of architecture and engineering but also the economic, sociological, and governmental factors.

Oh for the certainty of "solutions of all planning problems"!

The MIT program remained largely a one-man band led by Fred Adams until well into the 1940s. With reorganization and renaming, the Department of City and Regional Planning emerged in 1947 with Adams at its head.

Familiar names now begin to appear. Lloyd Rodwin joined the faculty in 1946 and Kevin Lynch in 1948. By 1950, the Department had expanded to six full-time faculty and one visiting professor. Thus it remained for a decade with Jack Howard, a consummate professional comprehensive planner, taking over the leadership in 1957, a position he held until 1970 when Rodwin succeeded him.

Issues of curriculum were simple in the Adams-Howard days. At the start of the 1950s, fourteen subjects were required of all professional degree candidates. Three

1 Avid readers can find a far more extensive version in the 1992 Long Range Plan.

required studio/workshops constituted the heart of the program. They focused on preparing plans - mostly subdivisions - for communities in Metropolitan Boston. Graduates were expected to join local planning commissions in Boston and elsewhere.

Those with memories of the 1950s in the Department of City and Regional Planning at MIT debate what the decade's program signified. Some argue that "the 50s were a period of mindless exercising of outdated skills, simply a prelude for the change of the 60s." Others maintain that Lynch, Rodwin, Frieden (the Department's first Ph.D.) and others represented "prototypes of the new fields of work that would divide and multiply later."

Benchmarks in the l950s include: the dropping of the undergraduate program in l954, creation of a doctoral program in 1958; a Center for Urban and Regional Studies set up in 1958 under Lloyd Rodwin's direction greatly enhanced the Department's research potential.

From the vantage point of 2007 what is now the MIT Department of Urban Studies and Planning (renamed in 1969) has been in a "long transformation" since the early sixties when Jack Howard ruled a small, focused department of city planning faculty and students with a benign but firm hand. The intellectual and professional life of the Department was framed in those days by the physical components of the urban environment. Good practice consisted of learning and implementing the rules-of-thumb derived from several generations of experts centered in the rational tradition of city planning. Students were taught about the evils of disjointed incrementalism. The limits of the field were succinctly expressed by Jack Howard's oft-quoted declaration that "our comprehensiveness is limited by our comprehension."[2]

At the same time, the design tradition was alive and well in Kevin Lynch's increasingly influential Image of the City work. The planner as master-builder, a combination of Daniel Burnham and Robert Moses, could be found in Lloyd Rodwin's Ciudad Guyana project which nurtured, in more ways than one, a whole generation of urban professionals in the 1960s.

But the times they were a-changin'. The intellectual clarity provided by 701 Master Plans, the federal government's life-line to comprehensive planners, and regional transportation studies -Dreaming the Rational City - was shattered with protests against urban renewal and highway invasion, the advent of the Civil Rights Movement, the emergence of the War on Poverty and later in the decade the rise of the environmental movement.

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2 Those dying to know more about "the planning traditions" can do so by dredging up the Planning and Institutional Processes (Gateway's sire) course that Schön and Keyes taught in the early 1980s.

By the end of the 1960s the fourteen required courses had been blown away and the MCP had virtually no requirements.

As he took over the mantle of leadership of the Department in 1970, aided by the youthful Lawrence Susskind, Rodwin moved away with a vengeance from the comprehensive physical planning tradition. With a keen sense of history, ideas and financial resources in good currency, Lloyd transformed the Department, virtually overnight, into a bustling academic supermarket in which one could acquire expertise in urban studies and social science as well as professional practice. If Jack had been concerned to maintain the profession's boundaries, Lloyd was determined to push them out as far as his imagination, energy and political skills could travel. In 1967 Lloyd received funding from the Ford Foundation to initiate SPURS. In 1970 the Department got permission to run a "small scale" S.B. in urban studies and to offer a five year S.B./MCP. In 1971 the foundation of what would become Mel King's Community Fellows Program was put in place: undergraduates, professionals from overseas, and frontline minority leaders broadened the Department's terrain.

Lang Keyes wrote the following in 1991 for the Schön Long Range Planning document. We think it has applies equally today.

> In a sense the department has been working to absorb and adapt to Lloyd's vision since he left office in 1974. DUSP as a supermarket was not a sustainable concept in an era of diminishing resources in which the word "urban" became less interesting to funders and donors. As the sixties-and seventies-idealism turned down and the reform era with it, MIT undergraduates no longer looked to the planning profession in large numbers as the calling for their multiple talents.
>
> As we have struggled with the variety of faculty, courses, agendas and missions resulting from the Rodwin offensive, we have been striving in however unconscious a mode to arrive at the sense of purpose and place which has the certainty of mission that characterized "Jack's day" combined with the intellectual excitement and relevance that permeated the Department in "Lloyd's time." This has been no easy task.

Major departmental reform efforts were undertaken in 1974, core reform in 1983. In 1992 the last major long-range plan for the department emerged under Don Schön's leadership after months of discussion, negotiation, memo writing and - yes - reflection. The extensive recommendations, many of which have been implemented, set the intellectual and

institutional framework for the Department as it exists today. It is a comprehensive, compelling and thoughtful document and for those who are not familiar with it, worth reading. Today's program groups have their origins in that plan of 1992 when the issue was one of creating a finite number of silos, not cutting across them.

The Schön regime, while dramatic in impact, was short-lived as was the Clay era that followed. The last fifteen years have been blessed with strong and durable leadership, first under Bish Sanyal and then Larry Vale - what one might refer to as "The Reign of the DUSP Antonines."[3]

Section B. From History to Critical Questions

The above is a short - very short - more or less linear history of the DUSP. Another way to look at departmental history is to focus on a series of critical questions that keep resurfacing, are resolved in some way or continue as a source of debate and concern. Taking a long view of the Department, there has been serious attention paid to Rick's command in Casablanca to "Play it again (and again) Sam."

The following highlights briefly a list of "Critical Questions" that the Department has confronted, resolved and faced again. While they have been reframed slightly each time they have emerged, they are likely to re-emerge in roughly the same form in the future.

1. Shouldn't we be guided by a long-term vision of where the Department is headed?

Anyone viewing our activities over the past forty years would note various strands of the "deep mission" that engaged us initially the late 1960s and continues to run through many of the things that we do. The reformist tradition of taking concerted action to improve the quality of life in spaces and places, especially when issues of equity are at stake, speaks to most of the students who have entered our Master's program over the past four decades.

In 1984 the DUSP Handbook defined our role as follows:

> City and Regional Planners are involved in a variety of activities aimed at shaping the patterns of human settlements. They work to provide housing, public services, employment opportunities and other crucial support systems which comprise a decent living environment, but also desire to harness the social, political, economic and technological forces that give meaning to everyday life. Whether the planner works at the neighborhood, metropolitan, state or national level, and whether he or she works in the public or private sector, the tasks are essentially

3 Edward Gibbon (*The Decline and Fall of the Roman Empire*) considers the Reign of the Antonines, 98-192 AD, the height of the Roman Empire. Peace and prosperity ruled the land. It did not, however, last forever.

> the same: to help define goals and objectives, to develop programs and policies responsive to individual and group needs, and to work with communities in allocating their resources most efficiently and equitably.
>
> Planners are often described as "generalists with a specialty." Specialties have been thought of in functional terms (such as housing, transportation, land use, etc.) or in terms of geographical levels at which decision-making takes place (neighborhood planning, town planning, regional planning, planning for international development, etc.). Specialties within the planning field relate to the different roles that planners play: manager, designer, regulator, advocate, evaluator, mediator, futurist, etc.[4]

In 1990, after extensive discussion, the following mission statement entered the DUSP Handbook. It offered four key values.

> First, the faculty is committed to **taking action in the world.** This is not to suggest that knowledge and scholarship for their own sakes are not important. Rather, the faculty places premium on generating useful knowledge and employing that knowledge in ways that are aimed at repairing the world.
>
> Secondly, the faculty shares a **commitment to social and political reform**. While there may not be complete agreement on a reformist agenda, there is a distinctly progressive cast to the goals of DUSP interventions, including a desire for more democracy, respect for cultural diversity, the importance of informed public discourse, increasing economic opportunities for the poor, the disadvantaged, and the inarticulate and a concern that the advantages of material progress be distributed fairly.
>
> Third, the faculty agrees on the importance of **improving the quality of places and spaces**. The physical environment and the form that settlements take are of great concern.
>
> Finally, the faculty has a great concern with **making institutions work**. That is, faculty are interested in the design and management of institutions so that they fit communities and environments effectively.

4 Larry Susskind taught a Planning and Institutional Processes course organized around "the roles planners play" in the late 1970s.

This mission statement dropped out of the handbook in 1996 and has remained out ever since. It was replaced with the following:

> The Department of Urban Studies and Planning at MIT seeks to educate practitioners and scholars who will be able to affect urban and regional development, community and economic development, physical planning and design and environmental policy. The Department is committed to educating planners who can effectively advocate the interests of under-represented constituencies.

However, the mission statement expressed in the 1992 Plan was re-affirmed during the 2000-2001 strategic planning process, and the ringing rhetoric of 1990 survives on our website and in our new brochure, "Can You Make a Difference in the World?" The first thing that anyone opening the brochure will see is:

> At the MIT Department of Urban Studies and Planning (DUSP), we are committed to positive social change. Our moral vision is translated into professional education in distinct ways:
> • We believe in the abilities of urban and regional institutions to steadily improve the quality of life of citizens.
> • We emphasize democratic decision-making involving both public and private actors, and acknowledge the necessity of government leadership to ensure greater social and economic equality.
> • We foster a positive approach to technological innovation as a major force of social change.
> • We trust that the built environment can meet the needs of diverse populations and serve as a source of meaning in their daily lives.

The vision or educational mission of the Department will always be an important consideration. It may be time to revisit the vision that will guide us for the next several decades.

2. To what extent should a focus on "places and spaces" dominate our teaching, research and practice as compared to a focus on policy and non-spatial concerns?

Other well-known planning schools, like Harvard, rejected their historical ties to the design professions. They moved out of architecture/design schools into public administration or public policy schools and immediately lost their professional identity. For four decades we have worked to maintain our ties (primarily through city design and development) to the architecture school in which we have been located from the beginning, while simultaneously broadening and deepening our ties to applied social

science departments (like economics, political science, anthropology and sociology). We have also tried hard to maintain a balance between a place-oriented approach to problem-definition and problem-solving and a policy-oriented approach to diagnosing and analyzing more fundamental social ills. We have never bought into physical determinism (i.e., that improving the design of the built environment will ensure social well-being). At the same time, our teaching and research, inspired particularly by the work of Kevin Lynch, has always focused on the importance of place-based problem solving.

There has also been a related tension between "planning" as a generic human activity and planning as a process uniquely focused on place-making and the allocation of land uses. One of the reasons we have never been able to link more closely to the Sloan School of Management has been our unwillingness to peel back all the social and political dimensions of place-based planning and focus solely on generic planning activities.

3. To what extent should our emphasis be on theory-building (knowledge development) versus the education of practitioners? How do the two complement rather than compete for attention and resources?

Given the critical nature of this issue, some background is in order.

A longstanding and common criticism of planning education is the persistent gap between theoretical and applied modes of instruction. From the 1930s through the 1960s, the planning curriculum at universities like MIT, Harvard, Penn and others emphasized planning practice above theory (as evidenced by the curriculum, especially the volume of studio courses offered during this time).

Between 1960 and 1970 many schools of planning, including MIT's, experienced growing 'tensions' between theory and practice. This tension is not unique to planning schools; most professional schools in the academic world struggle with it.

Throughout the 1970s and 1980s, the divide in planning schools deepened, as the curriculum of most diverged from a focus on professional practice to a more theoretical orientation. (In 1968, MIT' planning department eliminated its core curriculum, which included a series of studios; the set of core subjects put in place by the mid-1980s did not require studio courses). One could argue that this move accentuated the department's movement away from practice-based instruction.

This trend continued in planning schools across the country, despite the cohort of educators who argued for the value of engaging students in professional settings to prepare them for the day-to-day reality of planning practice. A movement to bridge the theory-practice divide is apparent in the contemporary literature on planning pedagogy.

Our doctoral program has never been an advanced practitioner's degree (although that is what the Ph.D. in planning has been at many schools). Rather, our focus has been on training scholars who will have the knowledge and skills required to make a contribution to applied social theory and to earn tenure as academics at the most prestigious universities. While some of our doctoral students do not choose an academic career, we train all our Ph.D. candidates as if that were likely to be their goal. We have moved from a departmental focused almost entirely on practice (in the 1950s and 1960s) to a department focused much more heavily on traditional social science-style scholarship (and humanities-style scholarship to a lesser degree). Scholarly success has become the yardstick for faculty hiring and promotion more than innovative or noteworthy contributions to practice. Even our MCP students, whom we expect to be practitioners (rather than social theorists) are required to master analytical skills and a knowledge base that has very little to do with many of the responsibilities they will be expected to handle as advanced practitioners.

Do we need to rethink the balance that we currently maintain between theory-building and practice in what we teach, in the focus of our research, and in how we reward student and faculty performance?

4. To what extent should we maintain our specialized organizational structure (built around four areas or groups) or should we give higher priority to cross-cutting activities and problems?

For more than twenty years we have maintained a commitment to City Design and Development, Environmental Policy and Planning; Housing and Community Economic Development; and International Development (as well as cross-cutting initiatives in transportation, information technology, and regional planning). Why? Are we convinced that these are the most important sub-specializations within the planning field? If they are, will they always be? On what basis should we decide that certain specializations should provide a basis for organizing our teaching and our research?

For the past few years, we have tried a number of ways to break down the divisions in the Department, encouraging students (and faculty) to think in terms of multiple group memberships and to engage in collaborative teaching. Nevertheless, we still allocate "lines" for new faculty appointments, financial aid, admission slots, and even office space by the same four long-standing sub-specialties. Historically, sub-groups ensured that students would be able to count on continuity in course offerings and find clusters of students and faculty who formed a community of shared concern. One rationale for these program groups has been that without pre-organized groups linked to the demand for specialties in the market, we would have a hard time attracting applicants and maintaining sustained research commitments.

At various times we have explored and rejected other possible specializations like health planning, criminal justice planning, geography, education planning, land use law, and others. But, we have not rejected the logic of maintaining some set of specializations. Perhaps we should revisit the basis for selecting and maintaining our commitment to specific specializations.

5. What is the core knowledge that every graduate of our MCP Program needs to know? (And, on what basis should materials be added to or deleted from this list?)

The key elements of he MCP core have changed markedly over the past forty years. In the 1960s, the core was eliminated entirely and we decided to let "1,000 flowers bloom." In 1974, we re-instituted the core in a new form. In 1982, we revised it substantially. In 1992, we reviewed the entire core yet again and renewed our commitment to certain key elements. In 2001, following a lengthy strategic planning process, we revised the core one more time. Are we still committed to one body of core knowledge for all MCP students regardless of the specialization they choose or the career path they have in mind? Are we as clear as we could be about what that body of knowledge ought to be?

6. What does it mean to be a planning department at MIT in particular? Do we have an obligation and/or is it in our best interest to leverage our ties to the rest of MIT and build on MIT's unique strengths?

We have engaged in what seems like an endless struggle to bridge to the vital center of what is, for many of us, a foreign culture. MIT has, for decades, been characterized as an institution of higher learning "polarized around science and engineering." Where does that leave us? The way scientists and engineers think about their mission, gauge their success, and organize themselves to do research and teaching often runs in different directions from what we might otherwise choose. On the other hand, we benefit (at least in terms of drawing the attention of national and international applicants) from MIT's reputation as a center for technical excellence. We have also worked hard to help strengthen those aspects of MIT to which we can contribute. For example, we have played a key role in developing the new Public Policy minor and offer a disproportionate number of HASS courses to undergraduates.

In recent years, we have drawn on MIT's strength in information science and built the Computer Resource Network and attempted to build a cross-cutting "Responsive Cities" initiative, bringing together faculty and students from across the DUSP program groups. We are connected to MIT's Media Lab, and have enhanced our course offerings in visualization, modeling, geographic information systems, and strategies for managing large data sets. We have also, through Joe Ferreira and others, helped to build MIT's computer-based and web-based learning systems on campus.

There are undoubtedly many ways in which we could do more to take advantage of strengths in other MIT schools, departments and research centers if faculty were inclined and/or rewarded for doing so. Similarly, MIT has not fully exploited what we have to offer.

7. What more can we do to increase the volume of sponsored research that DUSP faculty bring in each year?

The Institute rewards departments that generate substantial overhead on funded research. Space (and money for space improvement) is allocated, in part, in response to the volume of sponsored research. Departmental budgets (including money for student aid) are allocated with at least a nod in the direction of sponsored research volumes. DUSP has lagged behind other departments in the science and engineering schools in generating sponsored research. We point to lots of reasons why we think this is true. For example, there are no steady streams of federal money set aside to support research in our field the way there are in the biomedical, electrical engineering, artificial intelligence and other fields. NSF, NIH and other federal research programs do not award young investigator grants for junior faculty in our field. Much of the research we do is supported by philanthropic and governmental sources that refuse to pay MIT's overhead, more than 65% on every research dollar.

Nevertheless, the research traditions of most of our faculty—who do not work in large teams or with large data sets-- put us at a substantial financial disadvantage. We need to constantly revisit possible ways in which we can increase the volume of sponsored research credited to DUSP faculty.

8. Is it true that junior faculty in the DUSP have a smaller chance of earning tenure than their predecessors? Are we valuing the right kinds of accomplishments when we make tenure decisions?

It is true that over past decades a number of junior faculty members in DUSP have been turned down for tenure or believed that they would be and left accordingly. Similarly, as of 2007, the Department had yet to have a single female faculty member make it from Assistant Professor to tenure, and progress for advancing under-represented minority faculty has also lagged. We have, however, recently had outstanding and encouraging success. It may be that the Department, at various points in the past, did not provide adequate mentoring or clear enough guidelines about what was expected for promotion and tenure. That no longer seems to be the case, but the level of anxiety experienced by those who have to commit seven years of full-time service before they know whether they can stay (for life) or must leave, remains considerably high. Furthermore, as a professional school, we are still searching for the right way to ensure tenure for at least some tenure track faculty members whose primary accomplishments are practice-related.

The Engineering School and the Architecture Departments share some of these difficulties. Whether the tenure hurdle is higher than it has been in the past or not, the Department needs to continue to find ways of ensuring tenure success for our junior faculty.

9. How can we continue to influence the field of planning in the United States and rest of the world if the faculty are not themselves engaged in (exemplary) practice?

DUSP has had a disproportionate impact on the development of the academic wing of the profession through the involvement of numerous MIT faculty members (including previous DUSP chairs) in the American Planning Association and the Association of the Collegiate School of Planning and through the education of doctoral students who have gone on to take senior faculty positions in a great many planning departments. We have worked to create the Planning Accreditation Board (PAB) that is now a nationally sanctioned accrediting body and helped to structure its operations and standards. And, we are currently involved in multiple efforts to link ACSP to parallel groups of planning academics in other parts of the world. Our approach to the core and to teaching in a way that blends theory and practice has had an impact on planning education around the world, not only through our publications but also through each successive generation of graduates of our Ph.D. Program who have carried our model to other parts of the world.

Since the certainty of the early sixties, the Department has, at times, had more than a "lover's quarrel" with the orthodox planning profession. We have sometimes marched to a different drummer. In the end, though, there have also been some members of our senior faculty who assumed leadership roles within the profession and worked "from the inside" to promote constructive change. It is not obvious that MIT is currently represented in professional planning circles in a way that will allow us to have the same level of impact on the profession that we once had.

10. What more must we do to ensure a racially, ethnically and gender-diverse faculty and student body, especially at a time when affirmative action is under attack in the courts?

For more than 35 years, the DUSP has been committed to ensuring greater representation of what John Howard (in 1970) called "heretofore underrepresented constituencies." For decades, the DUSP has invested substantial portions of its discretionary funds in financial aid, faculty appointments and program support aimed at expanding the number of students, faculty and staff of color in the Department. Current DUSPers may not appreciate how far back this effort goes (including, in the early 1970s, Mel King's creation of the Community Fellows Program and Frank Jones' effort to find HUD Support for the Minority Internship Program).

The faculty has become more diverse in terms of gender, but to date this has been accomplished largely by making senior appointments. Department faculty helped form the Women in Planning group during the 1970s and hosted conferences on this during the 1980s and 1990s, yet the School's report on the status of women showed that significant barriers remain.

We have accomplished a lot in terms of diversifying the department, but there is always more to do.

11. Does the governance structure of the Department properly balance student concerns, junior faculty involvement and staff engagement in decision-making of various kinds?

More than any other Department at MIT, DUSP has committed to student involvement in decision-making. For many faculty, the scope of student participation in admissions decisions, for instance, is very uncomfortable. Nevertheless, the Department's commitment to student involvement in all decisions has been undiminished. In other Departments, the Department Head has unilateral authority over many of the decisions that we try to make collaboratively in DUSP. Junior faculty are much more engaged in a variety of policy-making activities than they are in many other departments. Should we re-visit our commitment to decentralization and collaborative decision-making? Are there costs and adverse impacts that have resulted from these policies that offset the obvious benefits?

12. The Ph.D. Program: Has it Changed? Should it?

With regard to the Ph.D. program, we suggest that the "not much has really changed" theme applies here. We started from the beginning looking for people who were primarily interested in an academic career. We still consider the Ph.D. in our field less an advanced professional degree and more an academic credential. The first field (discipline)/second field (applied area) is the same structure outlined when Susskind was chair of the Ph.D. committee in the early 1980s. The focus of the first year seminar on knowing how to frame a researchable question was what he and Bob Fogelson taught. So, while the content of the various specialized areas has changed and the range of dissertation topics has shifted, the mission and structure of the doctoral program have not changed very much. But should they? If so how? How are financial hurdles changing its nature in any case? What can be done to make sure the Department can make competitive offers to attract the top applicants?

Section C. For Everything There is a Season

The Department has come a long way since Jack Howard presided with an iron hand over those fourteen required courses. Today we stand at the top of our league as measured by opinion polls (whatever one thinks of their ultimate value.) We get more applications from smart people than we can accommodate. Our acceptance rate (i.e. yield on offers of admission) is staggeringly high given the high cost of tuition and expenses (the financial aid we offer is substantial, but falls far short of financial need). We have gotten three top people through the MIT tenure maze. We have a Dean who shares our values and is a tiger in defending her brood.

As this brief history reveals, many questions have been asked. Some have been answered. Many reappear in new variations: the need for financial assistance for students, the short-fall on research dollars, the concern for sufficient minority applicants, our role with undergraduates, the Institute as a whole and our relationship to technology. Practice and research balance precariously. And on and on. Much work lies ahead.
We are indebted to two remarkable chairs who have guided us with grace through the last fifteen years. But now that reign is ending. The torch of leadership is about to pass. It has been burning brightly and we must ensure it will continue to do so.

To whom and how we pass it and what we ask of the person to whom it is passed lie before us. Transitions in leadership are a good time to think about where we stand and where we want to go, but a new head must recognize where we have come from and what the recurring issues and patterns are that have defined us. If we choose someone from outside as our head, will they understand where we have come from and respect the features of our community that are most important? If we choose someone from inside, will they be able to help us get past the kinds of limits and boundaries that have continued to constrain us? The upcoming retreat is an opportunity to clarify those aspects of our past we want to preserve and those we want to escape.

With variations on Tennyson's "Ulysses" we might say that:

> Tho much is taken, much abides
> That which we are, we are
> One equal temper of heroic hearts
> Strong in will
> To strive to seek, to find, and not to yield.

At least that is our firm desire, and our hope.

Appendix II: Trends in Cities, Planning, and Development that Will Affect the Future of DUSP

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In preparation for a March 2007 DUSP Faculty Retreat, Larry Vale asked a small group of faculty to pull together this brief background paper discussing "broader changes going on in the field of planning and what they might mean for the future of the department." The faculty were drawn from each of the four program groups, but were not intended to represent the groups, simply to provide different points of view.

To develop the paper, we first responded individually to two questions:
• "What are the 4-5 most important trends that will change life in cities (regions included) over the next 25 years?
• "How could each of these trends affect the scholarship and practice of planning and development?"

In responding to the questions, we challenged ourselves to be specific, but not necessarily comprehensive, meaning we felt no need to cover every trend affecting cities, just to cite several that are important to us. Finally, we considered trends that extended beyond own particular areas of interest. The responses were collated and combined into a common set of trends, which were then fed back for reconsideration by the group, revised, submitted to the full faculty for comment, and are presented below.

This technique produced some interesting results. Most striking, we found it relatively easy to reach consensus on key trends that were emerging in city design, international development, environmental planning, and community development. These trends may evidence themselves in different ways and may be described in different language, but they seem to be showing up in the literature and practice across the field. Perhaps this is one measure of

the depth of enormous transformations that are underway in cities worldwide. It may also highlight that differences between extremes in the field are eroding and that core issues are emerging that crosscut old boundaries.

The trends describe various ways that city function is changing. We make note, however, that human actors create and interpret city functions in various ways, and that actors implement, influence, and resist the trends described. As planners we are interested in both knowing and changing the world in concert with other actors. Therefore, the study of how actors perceive cities and global trends is crucial not only for understanding outcomes but also for shaping them.

Of all the trends, one emerged as a meta-trend that reinforces the above conclusion. This trend is the growing impact of international forces, and institutions on the viability of cities. Of course, this is not new. In the past, international institutions of finance, governance, design and development have had enormous impact on planning in developing countries, but increasingly, planners in developed countries also are finding that they need to play in the global arena. We are not just talking here about planning for mega cities and regions like New York or London, but the smaller and poorer "forgotten cities" as well. And so, international institutions that set the rules will increasingly need to be dealt with, if globalization is to be channeled towards a better quality of life for ordinary places and people. This is an overarching issue for planning both physical and economic development that our students will need to engage in the future and suggests that DUSP will continue to become more internationally oriented.

Given this context, key trends that will change cities and city planning are as follows:

1. Climate Change

The warming of the earth's atmosphere caused by greenhouse gases will have an accelerating effect on cities over the next 25 years. In the near term it will cause efforts to reduce fossil fuel consumption; in the longer term, rising sea levels will directly affect the majority of the earth's urban population. These changes will occur much more quickly than generally understood, particularly affecting the planning field because it is oriented to the future.

The drive to energy efficiency, after years of gestation, is now taking hold at the building level as the architecture and development industries adopt standards as common practice. As with any fundamental change in standards, like fire codes, this will affect the materials, form, siting and appearance of buildings world wide, changing the look (and performance) of cities, particularly those that wish to market themselves as progressive. On the

larger scale, forces affecting land use, transportation, and development practices are accumulating more slowly but standards are now being promulgated at the community scale as well, aiming towards higher densities, mixed use, reduced travel, and more efficient modes of transportation. One stumbling block is the lack of revolutionary models for an integrated system of transportation and building. This is a clear challenge to planning and an area that will receive growing attention in the future, since virtually all of our current models are still based on urban concepts developed early in the 20th century at a time of cheap energy.

The rise in sea levels may seem a distant problem but will be a driving issue of planning in 25 years, since 14 of the world's 17 largest metropolitan areas, half of its population, and a majority of the poor live in low lying coastal areas already subject to flooding where the rise of only a few inches will have profound effects. The protection, redesign, or relocation of populations will require an immense investment of resources over the next century drawing money from other needed priorities, while demanding that we rethink traditional practices for siting and designing cities. While wealthy cities may be able to make these trade-offs, the poor and forgotten cites will require broad national, or international strategies to cope. New Orleans is just the opening line.

Such issues of sustainability are increasingly becoming an important measure of success in development decision-making, taking an equal seat with the traditional measures of economic growth, fairness and livability. After all, gains in these latter areas are meaningless if they cannot be sustained in the long term due to widespread environmental degradation. Addressing this basic reality has been made a priority of MIT and the school, and DUSP should continue to take a lead role in efforts like the "Energy Efficient City". Within the department, we should be teaching our students about complex human-environment systems and how to apply this knowledge to invent new models of development. Finally, the research hosted by our department needs to reflect the emerging significance of sustainability as a measure of success in development for both poor and wealthy cities. This will involve agencies and partners (worldwide) that are not necessarily the same ones that DUSP has worked with in the past.

2. Migration

Rural to urban and transnational migration, a theme of the 20th century, will continue to accelerate over the next 25 years, producing a world of mega-cities. In China, alone, it is estimated that the urban population will increase by 600 million during this time frame, requiring the equivalent construction of 50 cities the size of Shanghai. The impact of such rapid urbanization is already apparent. In developing countries, many cities have been strained beyond limits, unable to provide basic services to tens of millions of people

who live in informal settlements without adequate water, sanitation or health services to say nothing of education and jobs. There is a trend towards greater conflict in such cities, and a parallel demand for increased security, as newcomers and diverse ethnic groups contest for territory, resources, employment and cultural identity. Economic inequality across the world continues to increase, driven mainly by the changing global economy, and this impacts all other trends described in this paper. How to integrate poor people into the fabric of the city, without creating warfare on one hand, or sprawl (which is highly inefficient and consumes resources) on the other, is an enormous planning and development challenge that will involve strategies of design, property rights, utility provision, service delivery, public and private finance, and in particular, education to help assimilation.

Similar issues of migration are increasingly being felt in the cities of the developed world – in the US, where immigrants from Latin America are providing a growing percentage of the urban service workforce, in Europe, where immigrants from the east have been isolated at the edges of cities, and in the Middle East, where wealthy countries are importing vast numbers of guest laborers, many highly skilled, from India and Africa to build opulent cities at low wages. Housed in camps and dormitories, much like mill workers in the 19th century, they are destined to become a permanent underclass struggling for rights and property. At the same time, in declining industrialized areas of the US and Europe and elsewhere, rapid dissolution of cities is occurring, as jobs vanish and populations migrate to opportunities elsewhere, leaving behind those who have few skills or resources. Meanwhile, ethnic diversity is increasing in the cities of wealthy nations, due to declines in fertility rates and changes in family structure among the native-born, coupled with global migration from the developing world to the wealthy North.

It is not yet clear whether or how the planning field can make a meaningful impact on these macro forces of urbanization and poverty. Enrique Peñalosa (former Mayor of Bogota) argues for focusing on the physical qualities of place for the poor, pointing out that parks, public amenities, public transportation, and fewer cars can redress inequalities, enhancing the image of the city, and attracting investment into poor areas. Others focus on education as the means for poor migrants to achieve upward mobility, pointing out that globalization is creating jobs in cities that require increasing levels of knowledge and social skills. Early childhood education in particular is seen more and more as critical to developing cognitive and interpersonal skills in emigrant children that will enable them to compete with native-born kids. Still others have focused on micro-enterprises and lending.

It is important to recall that the planning field arose out of similar circumstances and efforts at the end of the 19th century, to provide a way out of the wretched conditions of

ethnic working class people in the industrial city, which in many ways was successful. Also, that migration to cities has been a strategy for countless millions of people to improve the quality of their lives and to take advantage of opportunities unavailable in their home communities, while at the same time adding to the rich diversity of urban culture. Finding a new paradigm for extending the benefits of urban life more quickly to more people lies at the heart of the planning challenge over the next 25 years. Similarly, in DUSP, framing this complex problem for students in ways that they can engage it and contribute to solutions in research and practice is one of our greatest challenges.

3. Race and Ethnic Conflicts

Race and ethnic conflicts are proliferating around the world. There are at least three types of race and ethnic conflicts that often overlap: (1) North/South tensions between the U.S. and Europe and people of color in the developing world, conflicts that are rooted in legacies of colonialism and slavery; (2) longstanding conflicts within countries rooted in caste, segregation, ethnic/racially-privileged access to resources; and (3) new conflicts spurred by large-scale migrations.

In the first category, there is wide-spread resentment towards U.S./European military intervention in the Middle East and insistence on military superiority; there is widespread resentment towards U.S./European trade agreements with developing nations and with structural adjustment programs forced on poor nations; there is emerging resistance to U.S./European insistence on "clean" sustainable development on the part of poor countries when the rich countries did neither, and in Africa, there is broad consensus that U.S./Europeans owe reparations for the lasting effects of the slave trade and widespread killing of Africans post-slavery in pursuit of the continent's vast natural resources.

Why are race/ethnic conflicts rising today? There are many possible explanations. Rising poverty in much of the developing world (and parts of the developed world) intensify the competitive struggle of groups for resources and economic advantage. The inability of post-colonial governments to meet economic needs prompts leaders to utilize ethnic rivalries to justify their rule and divert attention from economic issues. In some countries, there is deep resistance to the intrusion of "foreign" culture stemming from increased mobility and information flows (through cell phones and the internet, for example), and from global economic integration. Democracy itself, often promoted by the West, may be a culprit rather than a solution. Democracy, often misconstrued as merely a majority rule system, often fails to protect minority rights. This weak form of democracy does not resolve deep race and ethnic conflicts, but may empower majority groups to oppress minority groups–as in Iraq. The U.S. and Europe have little to teach the developing world on how to solve this problem.

The implications for cities are substantial. There are nearly a billion under-employed or unemployed workers worldwide, mostly people of color concentrated in cities. There is a growing trend of high street crime, gang violence, ethnic street fighting, and in some places, urban civil war. Metropolitan space is being rapidly reconfigured as a result, as wealthier families retreat to gated communities, distancing themselves from poor neighborhoods, and as security measures become a dominant feature of urban architecture and urban design. Under these conditions, it will be difficult to promote concepts of dense and compact urban living –a key feature of sustainable urban development. In poor cities in the developing world, basic planning practices – such as open space preservation, the separation of noxious and residential land uses, the collection and disposal (or recycling) of waste – are breaking down. Some cities are becoming ungovernable because local government cannot provide security, water, sanitation, or other basic services.

Silence on the above issues in the field of planning is striking. In the U.S., many of the crucial issues tearing apart low-income communities of color – AIDS rates on par with South Africa, the incarceration of a majority of black men without a college degree in black communities, majority illiteracy, structural unemployment, and rising black-Latino conflicts – are little discussed in planning discourse. The silence of planners is not innocent, but reflects the dominant conservative discourse in recent decades that attributes mass black incarceration to criminality rather than unemployment, that attributes illiteracy to an underclass culture rather than racial segregation and fiscal inequality in schooling, that treats politics and political participation as separable from development, and that treats race as cultural preference isolated from questions of wealth, history, and power. These later two issues are also downplayed in international development, as are crucial issues such as how to plan post conflict, how to empower marginal groups through the planning process itself, and the question of a relevant model for governance beyond majority- rule democracy. Learning to address race and ethnic conflicts as central to many planning issues, rather than as a separate problem, will increasingly become a challenge for planning education and for DUSP.

4. Technology

As in the past, advancing technology will have a major impact on city form, power structures, and economics over the next 25 years. As the digital revolution accelerates, the fundamental nature of planning will also change. Digital technology first made its impact on the workplace in the 1980s with the advent of the personal computer that vastly increased productivity and facilitated distributed production. In the 1990s the advent of the internet changed the nature of the home into a place for work, consumption, and entertainment as well as living. Now, with the advent of wireless communications, digital

technology is moving into the space between the home and the workplace, into the public realm of shopping, entertainment, culture, education, civic, and social spaces where much of our urban life occurs.

The sweeping impacts of these events are so obvious they are often overlooked. There are now about 3 billion cell phones in use worldwide, the majority in developing countries that account for 79% of the growth with no end in sight (India is adding 7 million a month.) Scores if not hundreds of cities are now in the process of providing ubiquitous public wireless access to the internet. The advent of RFID tags, replacing bar codes with interactive devices, will allow all people and products to be identified and communicate with each other. We are putting the equivalent of a nervous system into cities that will enable them to be sensed as a living system and eventually to respond, yielding tremendous efficiencies and a higher quality of life.

The easiest example of benefits is in the area of traffic, where digital technology will sense the movement of vehicles and change signage and lane markings to maximize efficient use of the road network in real time, or implement congestion pricing (as in Central London). Parking will be streamlined by assigning empty spaces to incoming vehicles that are directed to the location, eliminating searches for parking and saving up to 30% of the total energy consumed by cars in cities. Similar benefits across a range of urban functions are possible at a fraction of the cost of physical construction which, until now, was the only way of upgrading the performance of urban systems.

From a planning perspective there are several implications to this revolution. On the physical side, the city, itself, is now providing streams of data through which we can better understand and analyze urban functions in real time, leading to better management and design. On the social side, the presence of ubiquitous communications and information provides a vehicle through which constituencies can organize themselves both as markets and as political forces to effect change. This includes disadvantaged and forgotten communities, where digital storytelling and networks have become a means to reassert local needs. And so, a new more fractured set of groups and constituencies will need to be served. However, the same technology provides a way forward to get them into the planning decision process (actively or passively) in a real time way – an alternative to the old planning mode of endless studies and meetings to reach conclusions that are outdated on arrival. More about this in the next topic.

DUSP is now ahead of the field in research on the digital city across the spectrum: from collection and display of real time information, to middleware that can collate urban data from multiple sources, to the design of environments that can change and respond.

Research is also underway on ways to engage the public through open source methods. Both the physical and social implications of the digital city are natural growth areas across a department situated in MIT, providing opportunities for engagement with cities and companies to invent and deploy new urban systems. However, our students and faculty will need to become more conversant with media technology as a planning paradigm to realize this potential.

5. Complex Decision-Making

The reformist ideal of getting broad public and technical input into the plan-making process is growing increasingly more complicated. On the one hand, there are growing requirements for the involvement of stakeholders, in the design, implementation, and evaluation of public services and private development -- at every level. It is no longer possible in most democratic countries for government to impose planning and policy decisions on an unsuspecting population. Public participation requirements, mandates for disclosure of information, impact assessment procedures, and required public hearings all mean that concerned citizens – or at least those that show up -- will have a say. However, public officials are often not held accountable for implementing what the people seem to want. How to make public engagement more effective, and to manage the ad hoc involvement of large numbers of groups and individuals is not all that clear.

On the other hand, the growing scale and complexity of urban developments are requiring increasingly sophisticated science to understand their impacts. Here, too, politics can overrule policy-making, putting the public at risk. There are many issues like global warming, health, homeland security, water supply, preservation of agriculture, natural hazard management, energy supply and biotechnology that can quickly destroy whole communities that must be taken into account in planning. Responsible public officials are increasingly looking to their professional staffs to figure out ways of injecting “expert judgments” into the process.

How to include the public and scientific judgments in planning decisions in the face of demands for immediate action posed by rapid urban change will challenge our ideals of deliberative planning over the next 25 years. Consensus building experiments and models have become much more prevalent, but unless we can find ways to more quickly and powerfully demonstrate the effects of development on the everyday lives of people, then political agendas will continue to trump rational decision-making. New media interfaces may provide some of the answer by making sophisticated models of environmental, transportation, and other impacts accessible to lay people, demystifying the science and allowing them to see the impact of alternatives on their lives in real time. The need will remain, however, to evolve new institutions that can protect the public from the long-term

consequences of short-term politics.

To learn about this topic, our students will need to get involved in actual civic engagement efforts while they are in school, and we may need to include more "resource people" in our teaching who have relevant experience. At the same time, we have much to learn from other MIT departments in media, science, and management, for example, about how to more powerfully communicate scientific and technical findings to a broad audience. Finally, our field-work and practica may need to focus more intensively on the scientific and technical aspects of planning for us to be sure that our students are prepared for the work assignments that will face them.

6. Large-Scale Development

The drive to establish new towns and redevelop cities is deeply rooted in planning, going back to the origins of the field in the Garden City movement of the early 20th century and to major projects of the 1930's and 1960's. These kinds of large projects became less prevalent towards the end of the 20th century, but now they reappearing. In fact, the overall scale of development in general is expanding rapidly, fueled by changes in the real estate industry, the availability of large sources of capital (REITS), urbanization, and global ambitions.

It is important to recognize that the current generation of projects is very different from the new towns or urban renewal in the past. First of all, they are much larger and happening all over the world. Development plans for of districts of 1/2 million people have become rather commonplace in China. Cities ranging from 250,000 to over 2 million are in the development stages across the Islamic world – from Morocco to Pakistan. Major projects are beginning across Europe, in Scandinavia, Eastern Europe, and London where the continent's largest development is underway adjacent to Kings Cross Station, terminus of the new trans-European high-speed rail line. In the US as well, increasingly larger projects are rising, from Stapleton in Denver to Atlantic Yards in Brooklyn.

While many of these are initiated by the public sector, they are being planned and implemented by sophisticated private development firms with a broad range of skills and access to their own sources of capital. They are building not only homes (for a range of incomes) and offices but also infrastructure, ports, universities, stadiums and whole urban systems. We are seeing the emergence of a new city building industry that is highly integrated in all aspects from planning to service delivery. The products look and operate quite differently from conventional cities with new forms of organization and governance, involving large-scale resident management associations or hybrids that incorporate businesses and institutions as well. Quality services from transportation to education to

computer maintenance are delivered as a business (in which the public may own shares), not through a public entity subject to political pressure. This creates multiple income streams that are the real source of value in the developments. We can find fault with this approach, but such cities may be more agile and competitive in the 21st century and increasingly successful.

Finally, the best of these projects are focused on creating livable environments with a strong sense of place and cultural themes. This is to attract residents and business to locate there, of course, but there are other reasons. Firstly, the governments that initiate large scale projects are interested in enhancing their national identity and culture; a kind of nation building through real estate development. And so a new city in Saudi Arabia includes a (new) "old port" district to give the place a sense of history and connection to the Saudi story. Secondly, education from early childhood to universities has emerged as a central force in these projects (as it has in cities everywhere), taking its place next to value-added industry and global exchange. Finally, developers realize that the ubiquitous image of modern western cities is losing its appeal and that local themes offer greater identity in the global marketplace. Given that tourism has become the world's largest industry, the power of place-making to attract people, companies and investment can't be ignored.

It is essential that planning students appreciate the evolving role of the real estate industry and markets as a central force in making and managing cities. These large-scale projects, in particular, provide a platform for experimentation and lessons that could be valuable for reforming older cities, as well.

7. Emergence of a Hybrid Public-Private Realm

Extending the previous discussion, there has been a debate across the planning field since the 1980s about whether the public or private sector is the most appropriate and effective vehicle for developing and managing basic infrastructure and services. While privatization was the rage a decade ago, many argue that it is now clear that it is not possible to achieve fair and efficient service delivery by turning responsibility over to the private sector. No doubt the public sector still has a huge role to play, particularly in the developing world where DUSP is focused on training planners who can use the government planning apparatus to facilitate development.

On the other hand, many governments are under increasing fiscal stress, in which large segments of the population don't see rising incomes and oppose tax increases; and growing demands for social and medical services will soak up budgets before we even consider the challenges of terrorism, global warming, and increasing migration. This means that for many places, the public sector will increasingly withdraw from

development activities and turn to partnership with the private sector. In practice, across the world, we are seeing a growing reliance on new partnerships to design, deliver, and maintain a wide variety of what was formerly provided entirely by the government. In the process, historical notions of "public" and "private" may need to give way to more sophisticated "mixed" models of the economy and the polity. After all, when a government partners with a private company that it partially owns and is partially owned by thousands of private individuals to provide public services, what are we really talking about?

There is a tantalizing parallel to this social science debate in the physical arena. Since the 1980s cities have increasingly looked to private developers to provide and manage public space, infrastructure, amenities, even parks. Critics have decried "privatization of the public realm", claiming we are losing our social milieu, community, even democracy, itself. Meanwhile people flock to shopping malls are talking on their cell phones to wider networks of friends and colleagues then ever before. The fact that we can now participate in communities from our home, or share private information with someone in China on the town green, illustrates that the old concepts of the public and private realms are breaking down, at least at the edges.

It is useful to think about this change as the emergence of a third realm. We will continue to have public and private space (and institutions) of course, but in the future their scope will be more limited. The third realm is neither public nor private, but has aspects of both with some entirely new characteristics, as well. In this realm, the contracts of public and private ownership and control of activities that we have used since the start of industrial revolution to manage, develop and design space are giving way to a more fluid system in which rights and profit are negotiated in a more fluid and temporal way. Physical environments of this kind are highly responsive and ever changing, not so much owned and built but produced and managed from the middle according to a set of rules but built up by many, many contributors. Perhaps we could think about the emergence of new planning institutions in the same kind of way.

8. Holistic Thinking About the City

We conclude by focusing not so much on a trend but on a need -- which is emerging in the literature and practice -- to think again about the whole entity of what we call the city. Such thinking was largely discredited a generation ago along with large-scale government intervention. But the piecemeal way of thinking and acting on the city by sector has problems as well. The more we learn about the sectors, the more we understand that they are a function of something else. Efficient transportation cannot be achieved without dealing with land use; community empowerment is a function of technology; we cannot help the poor without understanding the rich. And so there is a growing need for people

who have a holistic understanding of the city and can innovate by applying the lessons in one area to advances in another. These are the planners.

But the field is suffering from a dearth of models (institutional and physical) of what the holistic city could be. The lack of serious research in this area on the academic side in particular, has created a vacuum in practice. In practice, there are only two models out there: The mass produced Modern City with its segregated land uses and classes connected by highways, which crystallized in the 1930's; or the 1980's New Urbanist vision of a return to small town life, where the rich are integrated with the poor in a neo-traditional environment. We can find simplified versions of both models in development all over the world. In the face of rapid growth (or dissolution), and in the absence of alternative models or processes or institutions, these models are the ones that cities and developers are grabbing and throwing on the ground -- for the rich or the poor, it doesn't matter.

Neither one takes into account the complex trends and forces discussed above. We can do better. After years of assessment and study, we have a more sophisticated understanding of how sectors of the city work, or don't. We also have an increasing ability to overlay multiple complex systems to see patterns and understand interactions that could lead to new models of city and new approaches to problems.

We may begin by simply looking across the trends and asking: What will they add up to? Or, what kind of city do we want them to add up to? It would be a city that is made energy efficient, for sure, by being fairly dense, less dependent on the car, with a fine grain of mixed uses. It would be culturally diverse, with newcomers not concentrated in ghettos but absorbed into the physical and economic fabric; in other words it would grow from within as well as without. It would be a city where racial and ethnic conflict is reduced through the empowerment of multiple groups who have equal access to the benefits of urban life. These goals may be supported by urban systems that are managed in real time to achieve maximum efficiency, and an environment that responds to needs for information and safety, changes in weather, and desires for cultural expression or civic art. The performance of these systems would be accessible to common people and interest groups, who could test alternatives, and voice their opinions in meetings or from their homes. Hybrid associations and partnerships would provide a range of services, as well as space, customizable to individual needs and incomes – by the day, the week, or the decade.

We could add that the city would be built around responsive physical places. It would contain a high level of amenities, natural spaces and parks to absorb water, but also to spread benefits to those who cannot personally afford them. And finally, learning in all of its many forms would be a central function of the city, both as vehicle both to lift people

from poverty and as an economic engine.

The power of DUSP is that by bringing together the edges of the field we can see covalent trends emerging that others cannot, and draw on our different experience and perspectives to invent new approaches to planning and to the conception of the city, itself. To achieve this potential, however, requires that we respect diverse intellectual contributions of one another in scholarship and practice, and be willing to step into other sectors of the field in order to learn more about our own.

So, perhaps this is the big challenge for us -- to refocus on the idea of the holistic city and to invent new ways of conceiving, modeling, and talking about it. To take up this challenge would mean that we become more future oriented, that we work through partnerships in research, teaching and practice – with engineering, architecture, political science, and media, for example -- to help us build institutions of the third realm, and finally, that we reassert the role of planners as problem solvers, and creative protagonists in the task of inventing new forms of the city.

Reflections

As a postscript, these trends raise some challenges for DUSP that we may consider at the retreat and in the future as the department evolves. More importantly, they provide benchmarks for understanding change that is happening right now in our midst, which can help us to separate what is of the future and what is of the past. Perhaps we should be asking: How are these changes already reflected in our department? Once recognized, we can then go on to figure out how to more forcefully engage the future. Here are some places where the trends may be felt:

• **Scope** – DUSP is gradually becoming larger and more complex as the number of students and faculty grow along with our engagements. This experience parallels an accelerating demand worldwide for city planners and thinkers who can help cities deal with issues like rapid urbanization (or dissolution), environmental degradation, ethnic conflict, and competition in the global marketplace. There is an explosion in the number of planning and development institutions, associations, and networks, from the China Planning Network spawned in our own department to ULI Europe and APA Asia. We also see a resurgence of interest in city planning and development in parallel disciplines: architecture, landscape architecture, civil engineering, technology, business, and real estate. For example, cities are now joining the media lab, where a new research initiative, “living the future” will focus on housing and neighborhoods. In response, should we continue to grow, or look more to strategic partnerships with our newly found “colleagues”?

• **Themes** – Another area of change in DUSP has been the emergence of cross-cutting research and practice initiatives: The Energy Efficient City, Responsive City, Forgotten City (including NOLA), and the Urbanization Labs (in India and China). These themes have emerged out of the interests and commitments of faculty and students to work together in creative efforts to solve urban problems. They involve multiple disciplines in DUSP, the institute, and outside agents. As such, they can provide a context for PhD research, a road map for master's students, and settings for classes. For DUSP, these initiatives may be the seeds of a way forward that promotes understanding and engagement of the whole city, rather than the traditional sectors. As they mature, we might ask: Are these the right themes? How many can we afford? How can we nurture them as engines of ideas and innovation?

• **Resources** – Support from the central administration is not keeping pace with the demand in DUSP for people and programs (particularly PhD), paralleling the trend we find in many cities. At the same time, cities and the emerging city-building industry are now sponsoring urban studies at a scale we haven't seen in the past. São Paulo, Kyiv, Mexico City, Zaragoza, Barcelona, Florence, Seoul, Beijing, Shenzhen and the Vanke Corporation among others have all contributed to our educational programs over the past year or so. Can we turn such sources of funding into a reliable base of support? Elsewhere at MIT, departments have formed research consortia around themes like those above, to attract diverse sponsors who then share in the products. Would this work in DUSP? What can we offer to potential sponsors? Could we continue to pursue our own agendas and values?

• **Action** – Over the past several years we have moved towards learning and research through active engagement in workshops and practica. This approach has enabled students to test theories while dealing with realities in the field. What can we learn from these experiences about how to plan more effectively? It's time to focus on this question, since virtually all of the trends point to the need for a new approach to planning and development, involving partnerships, for example, that can negotiate multiple interests and experts, using advanced technology to quickly make complex decisions. Our field activities could provide an ideal vehicle to test such ideas on the way to inventing a new model of practice. To reinvent planning is a challenge uniquely suited to DUSP, part of our intellectual tradition that should be resurrected, to insure that the planners we teach can be effective in the future.

We can conclude that the trends affecting cities are reflected in our department as well. An overarching issue is whether we can weave these strands of change into a new vision of ourselves.

Appendix III: "Tomorrow the Universe"

The SOU'EASTER

published in the interests of planning and of planners by the

Southeast Chapter, American Institute of Planners
2794 North Decatur Road, Decatur, Georgia

Vol. 1 No. 12 | Irving Hand, President | Leo J. Zuber, Editor | December 1957

WITH THIS ISSUE the Southeast Chapter is turning a corner; we are heading into another year. This is serious. Rather than philosophize, analyze or synthesize over the several solemn problem situations, each as ready, willing and anxious to present itself for consideration as anything you can think of, we'll sit for a spell this issue. Just this once.

* * * * * * * * * *

PROLOGUE

In January 1957, the rains came; they really came. As some lower-case Shakespeare would have it:

First it rained
Then it blew
Then it frizz
Then it snew.

Rain. More rain. Still more rain. Streams rose, then rose higher. There was a flood upon the land. The headwater lands of the Big Sandy, of the Licking, the Kentucky, the Cumberland. The forks of the Kentucky, the North, the Middle and the South. Levisa Fork of the Big Sandy. The rains' waters bloated the streams and they burse their bounds. They overcame Pikeville on the Big Sandy, Hazard on the North Fork, and Pineville on the Cumberland. With Pikeville went Paintsville; with Hazard went Whitesburg, Lothair, Buckhorn, Viper and Booneville; with Barbourville went Pineville, Harlan, Corbin and Middlesboro. Floods had come to Southeast Kentucky.

Melvin F. Levine

The rally to respond brought planners - including a playwright - to town. The planner - playwright was Melvin F. Levine, now returned to calmer climes in Boston's City Hall Annex (Room 1108) where he city plans. When Mel left old Kaintuck, he left fortunately a copy of an unpublished manuscript which HAS the magic to stir men's blood. So to Mel, the Southeast Chapter is indebted for permission to publish that which hitherto has gone unpublished. It's a play. It's a parody on planning and on planners. It's . . .

TOMORROW THE UNIVERSE

by

Melvine F. Levine

with assistance from assistants.

Identified as a play first presented on October 27, 1956, the occasion being the alumni reunion of MIT's Department of City and Regional Planning.

Disclaimer: Any resemblances to persons living or dead are purely intentional. Besides, all characters and situations, however real and unimaginary, are obviously fictitious and figments. End of disclaimer.

Time: Right now!

Place: Right here, see?

Dramatis personae: Planners and ilk.

Situation: The consulting firm of Adam, Tasker and Rolystone, well known for its planning derring do, has been engaged to prepare a plan, a Master Plan, for a small New England town, Amorphous, Mass.

ACT I

Scene 1. Office of Adam, Tasker and Rolystone. A, T. and R are already on stage, seated with backs to audience in chairs labelled "Master Planner," "General Planner," and "Comprehensive Planner." Another chair, vacant and dilapidated,is labelled "Spot Zoner." A, T and R are facing a large and base map of Amorphous, Mass. They turn and sing:

CAN YOU GUESS?

(Melody adapted from a "Pins and Needles" tune; just any one at all.)

Can you guess? Can you guess? Can you guess just WHO we are?
We're not from afar; we don't eat halvah.
Do you know? Do you know? Do you know who WE can be?
We're Adam, Tasker, Rolystone; the boys from MIT.

I'm Adam. I'm Tasker. From Inja to Alaska,
We've planned across the oceans blue,
We've planned the north and south shores too.
Hi, Fred! Hi, Jack! There's Roly in the back.

I'm Adam. I'm Tasker. Do you need a plan, we ask ya?
If Fred quotes high and Jack quotes low,
Rolystone will get the dough.
Hey, Jack! Hey, Fred! We're never in the red.

I'm Tasker. I'm Adam. To aid us when we got 'em.
Three hired hands fill up the corps,
Their names are lettered on the door:
Kevin, Burham, Uncle Lloyd . . . who could ask for anything more?

Adam: Gentlemen, we have a plan to present this week and nothing has been formalized yet. What's holding things up?

Rolystone: We've been thinking regionally and are having trouble delimiting a meaningful region.

Tasker: I've been thinking that concept over. The more I consider regional and interregional interrelationships the larger the region gets. I have finally decided that the smallest meaningful region we can use is the world.

Adam: Just where did you get your facts?

Tasker: I just made 'em up.

Rolystone: Well, what's good for General Planning is good for the World. Let's get on with it.

Adam: Agreed! We must first do a Plan of the World. But we'll need some assistance to get it done in a week. Will you have Miss Bones bring in that alumni list?

(They confer shortly over the long alumni list but decide there is not enough experience there. The list is discarded. Miss Bones is instructed to summon some big league consultants.)

. . . . . several seconds pass . . . . .

Scene 2. Same office. A, T and R prepare to meet their distinguished guest consultants. Horns, hoofs and saddle sound offstage.

Enter Reginald Reginald.

Rolystone: Well, it's Reginald Reginald, Boy Planner!

Reginald: Gentlemen; I represent an organization known as ACTION, The American Council to Improve Our Neighbors. We have a publication we'd like to leave with you which discusses OUR approach to planning. It's called "Planning the Neighbor's Hood." It deals with the social inadequacies of everything anyone has done so far in the field. Briefly, I can sum up our position like this.

THE NEIGHBORHOOD UNIT

(Tune: "The Cloakmakers' Union.")

Oh, the Neighborhood Unit is a no good unit,
it's an anti-social unit by the bosses.
The Neighborhood planners with their Garden City manners,
are making by masses double-crosses.
The Perry's and the Geddes' and the Howardses,
are nothing but a bunch of dirty cowardses.
They preached better cities but they sold out our kiddies
to preserve property values by the bosses.

(A, T and R display ill-concealed distress at this unseemly demonstration.)

Adam: Sir, these are subjects about which intelligent people can disagree rationally. Our inspiration is the man who ....

THE STEIN SONG

(Tune? Ah, you already guessed it.)

Here's a toast to Clarence Stein,
the pride of the Greenbelt rings.
He's the man we look to when
we plan superblocks and all those things.
Plan! Plan! Plan!
Baldwin Hills and Kitimat, Radburn and Sunnyside,
He's the man we vote for then,
our father figure and our guide.

Exit Reginald.

Scene 3. Same Office. Horn, slide rules, muffled castanets, and popping champagne bottles sound off stage.

Enter Señor José Sanmarco and Monsieur Le Courvoisier, who represent the Congrès Internationale d'Architecture Moderne (CIAM). An unsteady character in tattered clothing accompanies them on stage.

José sings:

THE CIAM SONG

I'm the biggest man in CIAM, yes I am;
I'm the biggest man in CIAM, yes I am.
To plan the new guts of your city
I've brought my whole committee.
I'm the biggest man in CIAM; yes, I am.

José: Gentlemen, we are here in the interests of Urban Design, whatever that is. We are for it and we think it ought to be done. Our committee consists of myself, Señor José Sanmarco, Mr. Irving Renewal, and our anchor man, Monsieur Le Courvoisier. He is here to describe some of his work.

Le Courvoisier sings:

CHANDIGARGH

(Tune: "Wunderbar.")

Chandigargh, Chandigargh
Makes the old Punjabi scene,
Just a grid without id on that tilting plain serene.

Chandigargh, Chandigargh,
See the pretty greenbelts there,
Every caste in its class checked into a special square.

Adam: Thank you for your presentation, gentlemen, but we have already arranged to engage in MIT design consultant.

Adam, Tasker and Roystone sing:

BELLUSCHI

(Tune: "Collegiate.")

Onesky, twosky, we are for Belluschi,
He is tried and truesky
He will be our man.

Warners', Metro, they could use Pietro,
But we offered more, so
He will do our plan.

Exit Sanmarco, Le Courvoisier and friend.

Scene 4. Same office. Horns, a repressed jet engine and an idle piledriver sound off stage.

Rolystone: It's Baron von Moses and Big Bill Zeckendorf!

Zeckendorf: We've heard that you are doing a Plan for the World. I come to inform you that my firm, Webb and Trapp, has optioned all the land in the world. And, we've hired Baron von Moses here to help us get an earth-shaking redevelopment project underway on a grand scale. For example:

von Moses and Zeckendorf sing:

MANHATTAN

Look at Manhattan, the Bronx and Staten Island too,
What we have done to them, we can do to you.
While you're still planning, we'll be trepanning the old North Pole.
We'll put the subway through,
From pole to pole you'll roll and pay the toll.

Before it's frozen, we'll be bulldozin' Greenlands hills.
We'll run the Gulf Stream in to stop the chills.
And all we ask for this task you'll learn
Is just a reasonable entreprenurial return.
For doing good for everyone is our concern.

(Speaking aside: Whether they like it of not!)

A, T and R sing:

Go down, Moses, back down to New York land
Tell old Zecky, let the old world be.

Come down, Moses, who's going to pay the fee?
You know Zecky; he won't work for free.

Exit von Moses and Zeckendorf.

Scene 5. Same office. Horns and T-square rampant on base map argent sound off stage

Rolystone: It's Kevin Lunch and his basket.

Enter Lunch.

Lunch: I've just come from the Preceptual Form of the City Office. We've got a load of second hand, slightly used material that you may be able to pad your report with.

Lunch sings:

DATA

(Tune: "Ja-Da.")

Data, data, assemble all the facts you can.
Data, data, design alone will never sell a plan
We've got statistics and charts and tables by the ton,
Even though we made them up, they're better than none.
Data, data, get'em from the data man!

(They all rummage through the Data Basket joyfully and with nonfeckless abandon as the scene ends.)

End of Act I.

* * * * * * * * * *

ACT II

Scene 1. Same office. The survey stage is completed. A, T and R are about to embark on the plan.

Adam: Well, now that all the consultants' reports and surveys are in, let's push them all aside and get on with the plan. But, before we begin, let us seek guidance from other-than-mere-mortal sources, from the Spirit of Planning, from the ghost of Daniel Burnham.

Oh, spirit, what is your advice?

Unseen offstage voice sings through a white sheet:

MAKE NO LITTLE PLANS

(Tune: "So Little Time.")

Make no little plans, they're not for you.
Make no little plans; they'll never do.
Faint plans never made fair city yet.
Don't worry 'bout the debt,
For what you need, you'll get
(Wanna bet?)

Scheme no little schemes, small schemes are through.
Dream no little dreams, that's the wrong view.
Big plans, coast to coast, are the kind we dig the most.
So, make no little plans, oo shoo be doo.

(The three are about to begin something when the horn sounds excitedly offkey offstage)

Rolystone: It's Lewis Mumbles, the Talking Planner!

Enter Mumbles, who sings:

KEEP YOUR TOWN ROMANTIC

(Tune: "Isn't It Romantic?")

Keep your town romantic
Like they were in medieval history.
Keep the town romantic,
Leave the mixed-up slums the way they used to be.
Don't clear away those charming old holes,
What is a city if it doesn't have pitfalls?

It may sound pedantic,
When I plead to leave the zoning boundaries loose.
To keep things gay and antic
There's nothing like a little non-conforming use.
And, most of all I pray you leave a place for Lovers' Lane.
That will be romantic,
It will bring the old days swinging back again.

Exit Mumbles hurriedly, without a backward glance as befits a man with a mission.

The planning stage begins - again!

Adam: All hands prepare for Operation "Master Planning!"

Miss Bones carries in a tray of planning implements: Prismacolors, poster paints, cotton wads, etc. Adam shouts out the uses. Tasker calculates on his slide rule and gives an area. Miss Bones prepares a wad of paint and Rolystone heaves it at the base base map on the wall. After a bit of this, the group falls to arguing about the arrangement of the plan. A slapstick scene ensues wherein all parties get bedaubed with colors - all standard land use colors, fortunately.

The embroglio is interrupted by an offstage fanfare of trumpets and 4 H pencils.

Enter Walter Isodopane, Regional Scientist, with briefcase on wheels.

Isodopane: Gentlemen, I see that you haven't finished your plan yet, so I I am still in time. After years of research on meaningful regions, I think that I've finally bumped the frontier and perhaps nudged it ahead just a bit. In fact, I definitely isolated some regional considerations beyond the world's boundaries which must be taken into consideration in your plan. You really. I sing.

INPUT - OUTPUT

(Tune: "Hayfoot - Strawfoot.")

Input, output, four rounds more,
Tables and factors and sums by the score.
Weber, Hoover, Losch and more,
None of their theories will do.

Disa, data, ton by ton,
Abacus and slide rule they used one by one.
Stewart, Zipf, they're all undone,
They didn't come up with the clue.

But now I've found a concept that's both old and new,
So gather 'round and follow this programming through.

Mutatis, mutandis, haec, hoc, hic,
Certeris paribus, ibid, op. cit.,
With Latin and footnotes to make it look slick,
I've got a new region for you.

Isodopane goes to the base map which has a grid pattern. He writes the four elements; Earth, Fire, Air and Water horizontally, and four planets, Earth, Mars, Venus and Saturn, vertically. Then, he puts an "X," Tasker an "O," Walter, Isodopane that is, an "X," Rolystone an "O," Walter an "X," Adam an "O" and Walter puts a final "X" completing a diagonal line of "X's" which he strikes through with a flash and a flourish and exclaims: "To-day the world, Tomorrow the Universe!"

Walter takes a peri-telescope out of his bulging briefcase on wheels, points it at the heavens, squats and squints. A. T and R, principals of the planning consultint firm, all hold hands, dance briefly around in an eccentric ellipse; then they fall busily to ordering more supplies of planning hardware: Prismacolors, Dismacolors, poster paints, wool and plastic cotton wads, blank base maps, and assorted offstage sound effects appropriate to the season.

THE END

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Images

v Judy Daniels, MIT Museum

9 MIT Museum
Courtesy DUSP

10 MIT Museum
Joseph Savitzky
Courtesy DUSP

11 Joseph Savitzky
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17 *PLAN 20* (1986),
courtesy Antonio C. Kayanan
MIT Museum

18 *PLAN 20* (1986),
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20 Courtesy UC Berkeley
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Courtesy Cornell University

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40 MIT Rotch Library
Drawing by Randall Imai

42-3 Drawings by Lawrence B. Anderson, from unpublished report, William L. Porter files, MIT Institute Archives and Special Collections

44 *Boston Globe*, November 16, 1965, MIT Museum
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45 Courtesy Lloyd Rodwin
PLAN 15 (1984)

46 MIT Museum
MIT Freshman picturebook

48 MIT Museum
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Community Innovators Lab

49 MIT Rotch Library
MIT Museum

51 MIT Museum

52 *Boston Sunday Post*, June 13, 1948, MIT Museum
MIT Museum

53 MIT Rotch Library

54 MIT Museum
Courtesy Langley Keyes

55 Courtesy Phillip Clay

56 MIT Museum
Courtesy Tunney Lee

57 Courtesy Lawrence Vale

59 JoAnn Carmin
South Florida Water Management District

60 Courtesy Lawrence Susskind
Ed Quinn, *Spectrum Magazine*

61 MIT Museum
Anne Whiston Spirn
Dorothea Lange

63 *Boston Globe*
Places Journal

64 MIT Museum
Courtesy Gary Hack

66 Courtesy Center for Real Estate

67 Courtesy Center for Real Estate
MIT Rotch Library

69 Courtesy SPURS

70 MIT Museum
MIT Rotch Library
Courtesy Judith Tendler
Courtesy Alice Amsden

71 MIT Museum
MIT Rotch Library

72 MIT Museum
Karen R. Polenske

73 Courtesy Adams, Howard,
and Greeley
Courtesy Gary Hack
Lloyd Rodwin

75 Courtesy Lorlene Hoyt,
Langley Keyes

76 Gabrielle Kruks-Wisner
Anna Brown

77 Rodrigo Diaz
Mariana Arcaya
Francisco Ruiz

79 Jeffrey Schwartz
Lawrence Vale

80 *The New Orleans Times-Picayune*
NOLA Main Streets Project

82 Dennis Frenchman

83 China Planning Network
Beijing Urbanization Lab

84 Dennis Frenchman
2006 Beijing Urban Design Studio

86 SENSEable Cities
Zaragoza Milla Digital, Dennis
Frenchman & William J. Mitchell

87 MIT Museum
MIT Rotch Library
Computer Resources Laboratory

89 Judy Daniels

90-1 L. Barry Hetherington
Justin Knight

92-3 Map by Frank Hebbert

121-9 Courtesy Joseph Savitzky