Publication
Exhibition
Conference

FUTURE SUBURBIA
In addition to its ongoing research areas, the MIT Center for Advanced Urbanism (CAU) establishes an overarching biennial theme that informs its research direction and programming for a two-year period. Each biennial theme is a timely topic within the urban discourse that provides consistency to the CAU’s lectures, workshops, courses, and conferences for its duration. The Future of Suburbia has explored forms of suburban developments of global significance under historical, contemporary, and futuristic lenses through three major components.

**Exhibition**
A global speculation on the Future of Suburbia around four emerging themes: experimental, heterogeneous, autonomous, and productivity.

**Conference**
A conversation exploring how suburbs and their metropolitan areas may be made more sustainable and livable through better design and planning.

**Publication**
We are living in a global suburban age. Modern suburban development has endured in our cultural imagination for almost a century. While statistics demonstrate that the amount of the world population in metropolitan areas is rapidly increasing, rarely is it understood that the bulk of this growth occurs in the suburbanized peripheries of cities. Domestically, over 69% of all U.S. residents live in suburban areas; internationally, many other developed countries are predominately suburban, while many developing countries are rapidly suburbanizing as well. By 2030, an estimated half a million square miles (1.2 million square kilometers) of land worldwide will become suburbia. Suburbanization is a contemporary global phenomenon.

With the success, growth, and increasing global social and economic dependence on suburbs, the MIT Center for Advanced Urbanism believes it is time to explore how they may be improved through better design and planning. What new land tenure models are needed to ensure that suburbs will become the frontier of innovation, tapping into flexible land-use to enable experimental economies, programs, and building? What technological innovations and productive systems will be embedded within suburban development to allow for self-sufficiency, or even perhaps to become a net producer of food, water, and energy? How do new forms of suburbs in these contexts evolve over time?

The Future of Suburbia conference will outline four design frameworks that project a future that is heterogeneous, experimental, autonomous and productive. Each of these themes will be explored by panelists from a broad array of fields including: design, architecture, urban planning, history and demographics, policy, energy, mobility, health, environment, economics, and applied and future technologies.

It is time to explore how suburbs may be improved through better design and planning.
Heterogeneous

In the future, suburbs will represent the most socio-economic diverse forms of urbanism and will leverage that characteristic to create innovative education, employment and cultural crossovers. How do we prime suburbs for this heterogeneity?

Productive

In the future, suburbs will be leading exemplars of sustainable living; sequestering carbon, harvesting and producing their own energy, integrating advanced agricultural systems, and promoting net zero waste and water systems. What productive systems will be embedded within suburban development to promote self-sufficiency?
In the future, suburbs will become the frontiers of innovative land-use, built within the framework of permanent flexibility that is able to adapt to new economic opportunities, demographic shifts or new technologies.

How do we ensure that flexible land tenure models permit innovation, and enable experimental economies, programs and building?

In the future, suburbs will be autonomously resilient to environmental pressures, collectively sensing and responding to their surroundings. With the widespread adoption of high-speed autonomous highways, greater distances will be traversed in the same amount of time.

How will autonomous mobility permit new suburban territories to emerge?
03.31.16

15:45pm  Registration

16:15pm  Welcome and introductions
Hashim Sarkis, MIT
Alan Leventhal
Alan Berger, MIT

16:30pm  Future of Suburbia
Robert Bruegmann, University of Illinois at Chicago
In conversation with Joel Budd, The Economist

18:00pm  Reception
04.01.16

08:30am  Breakfast and Registration
09:00am  Welcome
Opening remarks, Alan Berger, and Joel Kotkin
09:20am  Heterogeneous
David Rudlin, URBED
Ali Modarres, University of Washington Tacoma
Jed Kolko
Moderator, Joel Kotkin, Chapman University, New Geography
10:30am  Break
11:00am  Productive
Susannah Hagan, University of Westminster
Joan Nassauer, University of Michigan
Mitchell Joachim, Terreform ONE, NYU
Moderator, Peter Del Tredici, Harvard Graduate School of Design
12:00am  Global Snapshots
Ellen Lou, SOM
Sebastian Fernandez, INFONAVIT
Matthew Niederhauser
12:30pm  Lunch
14:00pm  Autonomous
Knut Sauer, Hyperloop Technologies
Eran Ben-Joseph, MIT DUSP
Nick Roy, MIT AeroAstro, CSAIL
Moderator, Joseph Coughlin, MIT AgeLab
15:00pm  Experimental
Bob Geolas, Research Triangle Foundation
Paul Feiler, CITE Development LLC
David Neustein, Other Architects
Moderator, Allison Arieff, SPUR, NY Times
16:00pm  Closing comments
<table>
<thead>
<tr>
<th>Allison Arieff</th>
<th>Eran Ben-Joseph</th>
<th>Alan Berger</th>
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<td>is Editorial Director of the urban planning and policy think tank, SPUR. She has been a contributing columnist to The New York Times since 2006. Arieff writes about architecture, design, cities and suburbs, for numerous publications including California Sunday, the MIT Technology Review, Dialogue, and CityLab. She is a former Editor-at-Large for GOOD and Sunset magazines, and was Senior Content Lead for the global design and innovation firm, IDEO. She was the Editor-in-Chief of Dwell (and was the magazine’s founding Senior Editor): Dwell won the National Magazine Award for General Excellence in 2005 under her tenure. Arieff is author of the books Prefab and Trailer Travel: A Visual History of Mobile America, and has contributed to numerous books on architecture, design and sustainability. She has a BA in History, an MA in art history and completed her PhD coursework in American Studies at New York University.</td>
<td>is the head of the Department of Urban Studies and Planning at the Massachusetts Institute of Technology. His research and teaching areas include urban and physical design, standards and regulations, sustainable site planning technologies and urban retrofitting. He is widely published and most recently authoring ReThinking a Lot. Eran worked as a city planner, urban designer and landscape architect in Europe, Asia, the Middle East and the United States and has led national and international multi-disciplinary projects in Singapore, Barcelona, Santiago, Tokyo and Washington DC among other places. Eran is the recipient of the Wade Award for his work on Representation of Places and the Milka Bliznakov Prize. He holds degrees from the University of California at Berkeley and Chiba National University of Japan.</td>
<td>is Professor of Landscape Architecture and Urban Design at Massachusetts Institute of Technology, Director of P-REX lab, at MIT, and also Co-Director of CAU, MIT Center for Advanced Urbanism. All of his research and work emphasizes the link between our consumption of natural resources, and the waste and destruction of landscape, to help us better understand how to proceed with redesigning around our wasteful lifestyles for more intelligent outcomes. His most recent publications include: Systemic Design Can Change the World, and Landscape + Urbanism Around the Bay of Mumbai (with Rahul Mehrotra). He is a Prince Charitable Trusts Fellow of The American Academy in Rome.</td>
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Robert Bruegmann received his BA from Principia College in 1970 and his Ph.D. from the University of Pennsylvania in 1976. In 1977 he became assistant professor in the Art History Department at the University of Illinois at Chicago where he is currently professor with appointments in the School of Architecture and Urban Planning and Policy. He has also taught at the University of Pennsylvania, Philadelphia College of the Arts, Massachusetts Institute of Technology and Columbia University. His fields of research and teaching are architectural, urban, landscape, and planning history and historical preservation. In recent years he has been examining the issue of urban sprawl.

Joel Budd writes stories and editorials about urbanisation, development and demography for The Economist magazine in London. He is the author of an essay, “A Planet of Suburbs”, which appeared in December 2014. He has been on The Economist’s staff since 2003 and has previously held the jobs of Britain editor, media correspondent, and Los Angeles correspondent. Before becoming a journalist he took an ill-advised detour into academia, earning a PhD in early modern European history from New York University.

Joseph F. Coughlin Ph.D is founder and Director of the Massachusetts Institute of Technology AgeLab. He teaches in MIT’s Department of Urban Studies & Planning and the Sloan School’s Advanced Management Program. Dr. Coughlin is a regular contributor to the Wall Street Journal, MarketWatch, Slate and the online Disruptive Demographics on BigThink.com. He was named by The Wall Street Journal as one of “12 pioneers inventing the future of retirement,” and by Fast Company Magazine as one of the “100 Most Creative People in Business.” Dr. Coughlin was appointed by President George W. Bush to the White House Conference on Aging Advisory Committee and has advised non-profits, governments and corporations worldwide. He is writing a forthcoming book with Public Affairs Press examining the convergence old age, business & technology.
Peter Del Tredici holds a BA degree in Zoology from the University of California, Berkeley (1968), a MA degree in Biology from the University of Oregon (1969), and a Ph.D. in Biology from Boston University (1991). He retired from the Arnold Arboretum of Harvard University 2014 after working there for 35 years as Plant Propagator, Curator of the Larz Anderson Bonsai Collection, Editor of Arnoldia, Director of Living Collections and Senior Research Scientist. Since 1992, Dr. Del Tredici has taught as an Associate Professor in Practice at the Harvard Graduate School of Design. He is the winner of the 1999 Arthur Hoyt Scott Medal and Award and was awarded the 2013 Veitch Gold Medal by The Royal Horticultural Society (England).

Paul Feiler is the Principal Executive for CITE Development LLC, with responsibility for the leadership, development and on-going management of the CITE Test and Evaluation Facility, located in New Mexico, and its subsidiary businesses. Paul also serves as a Managing Director with Berkeley Research Group, leading their national Strategy and Dynamic Capabilities Practice. He provides expert advisory services related to the commercialization of large-scale innovations and design and development of strategy and implementation of transformational change with large organizations in high velocity and/or turbulent markets. Dr. Feiler offers over 25 years of professional experience leading strategy development and major change projects in energy, healthcare, construction, manufacturing, and higher education industries, and with government institutions.

Sebastián Fernandez currently serves as Director of Business Sector Instituto del Fondo Nacional de la Vivienda para los Trabajadores (Infonavit), a tripartite institution that shares decision-making between the Government, the Sector Workers and Employers Sector. During his experience in the Federal Government, he has been Director General of Territorial Development for Housing in the National Commission on Housing Development now the National Housing Commission (CONAVI), part of the Boards of Directors of the Regulatory Commission of the Land tenure (CORETT), the National Popular Housing Trust Fund (FONHAPO) and INFONAVIT. He has represented the Mexican government at the World Bank and the Inter-American Development Bank on housing issues and for his career of more than 15 years in the housing sector he was awarded the Man of Housing 2012.
Robert T. “Bob” Geolas serves as President and CEO of the Research Triangle Foundation of North Carolina, the organization entrusted with keeping Research Triangle Park at the top of North Carolina’s innovation economy. As the President and CEO, Bob works to continue growing RTP’s historic legacy for future generations of North Carolinians. To achieve this, Bob is responsible for maintaining and expanding relationships between North Carolina’s educational institutions and RTP industry. He also leads the first redevelopment in RTP’s history – Park Center. Prior to his current role, Bob was the Executive Director of the Clemson University International Center for Automotive Research (CU-ICAR) where he took a vision for the campus from dream to reality. In his earlier career, Bob led North Carolina State University’s Centennial Campus and Centennial Biomedical Campus.

Susannah Hagan is Research Professor in Architecture in the University of Westminster’s Department of Architecture and the Built Environment. Before that she was Professor of Architectural Research and Head of Research in the School of Architecture at the Royal College of Art from 2012-2016, leading the research cluster PS2 (Public Space Projects). Trained as an architect at Columbia University, and the Architectural Association, London, she is also the founder and director of R_E_D (Research into Environment + Design), a European design research consultancy that specializes in promoting the role of design in making cities more environmentally resilient, with past work in England, Sweden, and the Baltic cities. She is on the editorial boards of arq: Architectural Research Quarterly and The Architectural Review, and is a member of the AHRC Peer Review College.

Mitchell Joachim is the founding co-president of Terreform ONE, a nonprofit think tank for architecture and smart city design. Terreform ONE was an Official Selection of the Venice Biennale International Architecture Exhibition 2014 and OfficeUS Outpost of the American Pavilion. Before coming to NYU, Professor Joachim was an architect at the offices of Frank Gehry and I.M. Pei., served as the Frank Gehry Chair at the University of Toronto, and taught at Pratt, Columbia, Syracuse, Cornell, University of Washington, Rensselaer Polytechnic, and Parsons School of Design. A TED Senior Fellow, he has been awarded fellowships with Moshe Safdie and Martin Society for Sustainability at MIT. He won the AIA New York Urban Design Merit Award, 1st Place International Architecture Award, Zumtobel Group Award for Sustainability and Humanity, History Channel Infiniti Award for City of the Future, Time Magazine’s Best Invention, and the Victor Papanek Social Design Award.
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<tr>
<th>Jed Kolko</th>
<th>Joel Kotkin</th>
<th>Ellen Lou</th>
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<td>was Chief Economist and VP of Analytics at Trulia, the online real estate marketplace, from 2011 to 2015, where he led Trulia’s housing and economics research and was the company’s spokesperson about the national housing market. He is now an independent economist advising companies and non-profits on their data-science and research strategies. He is also a Senior Fellow at the Terner Center for Housing Innovation at UC-Berkeley. Jed is regularly cited in the national media. He has written for the New York Times, the Wall Street Journal, Bloomberg View, FiveThirtyEight, Wonkblog, and Atlantic CityLab, and has authored a dozen academic articles. He earned his A.B. in social studies and his Ph.D. in economics at Harvard University.</td>
<td>is an internationally-recognized authority on global, economic, political and social trends, and is the author of the widely praised new book, The New Class Conflict (Telos Press), which describes the changing dynamics of class in America. Mr. Kotkin is the Presidential Fellow in Urban Futures at Chapman University in Orange, California and Executive Director of the Houston-based Center for Opportunity Urbanism. He is Executive Editor of the widely read website New Geography and writes the weekly New Geographer column for Forbes.com. He serves on the editorial board of the Orange County Register and writes a weekly column for that paper, and is a regular contributor to the Daily Beast. His previous books include The Next Hundred Million: America in 2050, (The Penguin Press). The book explores how the nation will evolve in the next four decades.</td>
<td>is a licensed architect and certified city planner who leads the Urban Design + Planning Group for SOM’s San Francisco office. Focusing efforts in the United States and the Pacific Rim countries, her areas of specialization include urban, brownfield reuse, master plans for new towns and communities, historic revitalization, and campus master plans. Lou is also active in civic and educational outreach. She has lectured and served as visiting instructor and guest critic for architecture and urban design courses at the Massachusetts Institute of Technology, Stanford University, North Dakota University, California Academy of Arts, and University of California Berkeley. She has also participated in community workshops and design charrettes organized by the San Francisco Planning Department and the Association of Bay Area Government.</td>
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<td>Ali Modarres</td>
<td>Joan Iverson Nassauer</td>
<td>David Neustein</td>
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<td>is the Director of Urban Studies at University of Washington Tacoma. He is the editor of Cities: The International Journal of Urban Policy and Planning. Dr. Modarres earned his Ph.D. in geography from the University of Arizona and holds master and bachelor degrees in landscape architecture from the same institution. He specializes in urban geography and his primary research and publication interests are socio-spatial urban dynamics and the political economy of urban design. He has published in the areas of social geography, transportation planning, and public policy. Some of his recent articles have appeared in the Transport Geography, Current Research on Cities, and International Journal of Urban and Regional Research.</td>
<td>Professor of Landscape Architecture in the School of Natural Resources and Environment, University of Michigan, develops ecological design proposals and investigates how human experience is affected by and can sustain environmentally beneficial landscape patterns. The author of more than 80 refereed papers and books, her current design research addresses green infrastructure for highly vacant urban neighborhoods and ecosystem services from suburban landscapes. A Fellow by the American Society of Landscape Architects (1992), she was named Distinguished Scholar by the International Association of Landscape Ecology (IALE) (2007) and Distinguished Practitioner of Landscape Ecology in the United States (1998). She is co-editor in chief of Landscape and Urban Planning.</td>
<td>is a director of Other Architects, overseeing the design of projects from inception to completion. An award-winning designer and critic, David’s work has been exhibited in Sydney, Canberra, Perth and Milan, and his writing has been published in Australia, India, Mexico, Italy and Spain. Winner of the 2013 Open Agenda competition and the 2012 bi-annual Adrian Ashton Prize for Architectural Journalism, he has twice been shortlisted for Creative Director of the Australian Pavilion at the Venice Architecture Biennale (2007 and 2013). David is an Associate of the School of Architecture at the University of Technology, Sydney, and resident architecture critic for The Monthly magazine. He has a Bachelor of Design degree from the University of Sydney and a Master of Architecture with Distinction from RMIT.</td>
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Matthew Niederhasuer

is an artist, photojournalist, and cinematographer. His interest in China was sparked by Mandarin courses in high school, and he quickly became fascinated with the country’s expansive history. Matthew then immersed himself in the anthropology department at Columbia University. After graduating he returned to China to explore documentary projects and other creative outlets. Since then Matthew’s photography investigating youth culture and urban development in China appeared in The New Yorker, National Geographic, Wired, The New York Times, Foreign Policy, and The New Republic among many others. He also shot video for The New York Times. Kapital Creation is his first full-length film. He earned his MFA in Art Practice from SVA.

Nicholas Roy

is an Associate Professor in the Department of Aeronautics & Astronautics at the Massachusetts Institute of Technology and a member of the Computer Science and Artificial Intelligence Laboratory (CSAIL) at MIT. He received his Ph. D. in Robotics from Carnegie Mellon University in 2003. His research interests include autonomous systems, micro air vehicles, mobile robotics, human-computer interaction, decision-making under uncertainty and machine learning.

David Rudlin

is a director of URBED, Honorary Professor at Manchester University and winner of the 2014 Wolfson Economics Prize. A planner by training, he started his career with Manchester City Council before joining URBED in 1990 to manage the Award-winning Little Germany Action project in Bradford. Since then he as developed the practice’s master planning, sustainability and community involvement specialisms, working extensively across the UK. He is the author of a number of research reports and a book ‘Sustainable Urban Neighbourhood’ published by the Architectural Press 2009. This was described by Richard Rogers as ‘the best analysis (he) had read of the crisis facing the contemporary city’. He chairs the Sheffield Design Panel, BEAM in Wakefield and is also a director of the Academy of Urbanism and Honorary Professor at Manchester University.
Knut Sauer received a PhD in Transportation Engineering and Computer Science from Centre for Transport, Imperial College, London in the UK and an EMBA from the London School of Economics. In his academic life Knut worked on highly reliable computational algorithms for navigation applications for civil aviation and on financial modeling connected to inner city road charging. Knut joint Hyperloop Technologies in January 2016 as Vice President. Before that Knut lead Siemens’s Think Tank on Mobility. Prior to Siemens Knut held various senior positions at the Swiss Federal Railroad and Oliver Wyman’s surface transportation practice.
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