

On data, science, cities, territory and landscape.

Exchange of approaches.

May 10 2023, 5 pm – 8 pm.

A symposium hosted by
The Real Colegio Complutense
at Harvard University.
26 Trowbridge Street
Cambridge, MA 02138



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Summary

Researchers and professors from different labs and departments dealing with data, science, cities, territory and landscape, at Harvard University, the Massachusetts Institute of Technology (MIT) and the Complutense University of Madrid (UCM), will exchange their objectives and research methodologies, opening a conversation about common challenges, different approaches and potential collaborations. The symposium will consist of two panels articulating the speakers' presentations, followed by a round-table where a conversation among the speakers will take place, opening the discussion to the public.

Participating Labs and Departments

1. City Form Lab and the City Design and Development Group. MIT.
2. City Science Lab. MIT.
3. Civic Data Design Lab. MIT.
4. Connection Science. MIT.
5. Harvard Department of Landscape Architecture. Graduate School of Design (GSD).
6. Senseable City Lab. MIT.
7. tGIS Research Group. Complutense University of Madrid.

Speakers

1. Luis Alonso. City Science Lab. MIT.
2. Mark Heller. Department of Landscape Architecture, Harvard GSD.
3. Esteban Moro. Connection Science. MIT.
4. Pablo Pérez Ramos. Department of Landscape Architecture, Harvard GSD.
5. Gustavo Romanillos. Complutense University of Madrid and Visiting Scholar at Harvard.
6. Leonard Schrage. Senseable City Lab. MIT.
7. Andres Sevtsuk. City Design and Development Group. MIT.
8. Sarah Williams. Civic Data Design Lab. MIT.

Schedule

5:00 pm

Welcome and Introduction.

- Daniel Sánchez Mata, Director of the Real Colegio Complutense at Harvard.
 - Gustavo Romanillos. Associate Professor at the Complutense University of Madrid and Visiting Scholar at Harvard GSD.
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5:15 pm

Panel 1.

1. Andres Sevtsuk, Head of the City Design and Development Group. MIT.
 2. Mark Heller. Department of Landscape Architecture, Harvard GSD.
 3. Pablo Pérez-Ramos. Department of Landscape Architecture, Harvard GSD.
 4. Gustavo Romanillos. Associate Professor at the Complutense University of Madrid and Visiting Scholar at Harvard GSD.
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6:15 pm

Break.

6:30 pm

Panel 2.

1. Sarah Williams, Director of the Civic Data Design Lab. MIT.
 2. Luis Alonso, Researcher in the City Science Lab. MIT.
 3. Leonard Schrage, Senseable City Lab. MIT.
 4. Esteban Moro. Connection Science. MIT.
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7:30pm

Round Table moderated by Gustavo Romanillos.

8:00pm

Cocktail offered by the Real Colegio Complutense.

About speakers



Luis Alonso Pastor

Research Scientist

City Science group

Massachusetts Institute of Technology.

Luis Alonso is a research scientist in the City Science group and Principal Investigator of the Andorra Living Lab Project. He has a PhD in architecture and coordinates the Andorra Living Lab project. He oversees the integration of the group's diverse research topics (energy consumption, city simulation, urban mobility, innovation district, and smart housing) in City Science Network of Collaborative Cities, to provide comprehensive solutions for urban and country challenges, in order to transform cities into more diverse and vibrant "human scale ecosystems." Since he is focused on very different lines of research and work, his antidisiplinary approach fits on the Media Lab philosophy: City Science, urban indicators, big data analysis, urban planning, architectural robotics, building design and construction, new and smart materials (free-form transparent energy efficient envelopes and biomedical uses), energy simulation and building efficiency and sustainability, eco-innovation, e-learning and its impact on social networks, new technologies, IoT, etc.).



Mark Heller

Design Critic in Landscape Architecture

Graduate School of Design at Harvard University.

Mark Heller is a Design Critic in Landscape Architecture. He teaches in the MLA core studio sequence and leads a seminar on mapping the environmental and morphological impacts of urbanization. Mark's design work intersects geography, data visualization, and simulation. As an Irving Innovation Fellow at the GSD, he built Autosimulacrum, a platform for computationally rendering speculative landscapes. Recent and ongoing collaborations include Carlo Ratti Associati for Manifesta 14 in Pristina, Kosovo, and the London School of Economics. Prior to joining the department, Mark served as a Lecturer with Urban Planning and Design and taught undergraduate architecture seminars at Wentworth Institute of Technology. He has practiced as an urban and landscape designer at Perkins&Will, Sasaki Associates, Starr Whitehouse, and Williams, Asselin, Ackaoui & Associates. Mark received his Master in Landscape Architecture and Master in Urban Planning from Harvard GSD, and holds a degree in Government and Asian & Middle Eastern Studies from Dartmouth College.



Esteban Moro

Associate Professor in the Department of Mathematics, at the Universidad Carlos III de Madrid.

Research Scientist, Connection Science, MIT.

Esteban Moro is an Associate Professor in the Department of Mathematics at Universidad Carlos III de Madrid and Researcher in the Sociotechnical Systems Research Center at the Massachusetts Institute of Technology. He was previously a researcher at the University of Oxford. He holds a Ph.D. in Physics and is an affiliate faculty at the Joint Institute UC3M-Santander on Big Data at UC3M and the Joint Institute of Mathematical Sciences, Spain. Esteban's work lies in the intersection of big data and computational social science, with particular attention to human dynamics, collective intelligence, social networks, and urban mobility in problems like viral marketing, natural disaster management, or economic segregation in cities. He has received numerous awards for his research and his work appeared in major journals and is regularly covered by media outlets.



Pablo Pérez-Ramos

Assistant Professor of Landscape Architecture

Graduate School of Design at Harvard University.

Pablo Pérez-Ramos is an Assistant Professor of Landscape Architecture at the Harvard Graduate School of Design. He holds Doctor of Design and Master in Landscape Architecture degrees from the GSD (Harvard) and is a licensed architect from the Escuela Técnica Superior de Arquitectura de Madrid (ETSAM). Pérez-Ramos investigates the origins of contemporary ecological views in landscape architecture by examining the central debates in ecological theory. Recent research has concerned traditional knowledge and technology in hyperarid environments in North Africa. He is currently working on a book project about a thermodynamic theory of landscape, which focuses on the interferences that exist between design, technology, and the other forces through which the environment is formed. During 2016 and 2017, he was the Urban Landscape Program coordinator at the Northeastern University School of Architecture. He has been a member of the editorial board of the *New Geographies* journal between 2013 and 2018, and co-editor-in-chief of *New Geographies 08: Island* (Harvard GSD, 2016).



Gustavo Romanillos

Associate Professor in the Department of Geography at the Complutense University of Madrid (UCM).

Researcher in the tGIS Research Group (UCM).

Visiting Scholar at Harvard GSD.

Architect, urban planner and PhD in Geography, his work focuses on the visualization, spatial analysis and modeling of urban and social dynamics, based on the application of Geographic Information Systems and other emergent technologies, and the use of new and unconventional data sources. He teaches at the Complutense University of Madrid (UCM), where he coordinates the Master in Smart and Sustainable Cities, and he is currently Visiting Scholar in the Graduate School of Design at Harvard University and Visiting Lecturer at the University of Luxembourg. He has also taught at the Architectural Association School of Architecture of London and has been guest lecturer at other universities in Europe and Latin America. As an architect, he has developed a wide range of projects, some of which has been awarded in several international competitions of architecture and urbanism; as a researcher, he works in the tGIS research group at the UCM and, as a consultant, he has worked for different institutions, such as the United Nations Development Program, the Inter-American Development Bank or the European Commission.



Leonard Schrage

Graduate Student, MIT DUSP

Research Assistant, MIT Senseable City Lab

Research Assistant, MIT City Form Lab

Founding Partner, Living Systems.

Leonard Schrage is an architect and urban planner from Germany. He is currently a graduate student at MIT Department for Urban Studies and Planning with a focus on computational urban science. He is interested in how knowledge transfer and ethical technology can enable systemic change and foster the decarbonisation of our cities. He works as a Research Assistant at MIT Senseable City Lab as well as at MIT City Form Lab. He is Founding Partner of the research and design practice Living Systems. Previously he was a Research Fellow at TU Berlin's Chair for Sustainable Planning and Urban Design and worked as an Innovation Consultant, Product Manager, and Digital Product Designer with a focus on sustainability and affordable technologies, after being trained as an architect at the Architectural Association School of Architecture in London and the Technical University of Munich. In 2022, he won the Start-Up Award+ of the German Ministry for Economic Affairs and Climate Action.



Andres Sevtsuk

Associate Professor of Urban Science and Planning
Director, City Form Lab and Head, City Design and Development Group
Department of Urban Studies and Planning
Massachusetts Institute of Technology.

Andres Sevtsuk is Head of the City Design and Development Group and the Charles and Ann Spaulding Career Development Associate Professor of Urban Science and Planning at the Department of Urban Studies and Planning, where he also leads the City Form Lab. His research focuses on public qualities of cities, and on making urban environments more walkable, sustainable and equitable, bridging the fields of urban design, spatial analytics and mobility research. Andres is the author of the Urban Network Analysis toolbox, used by researchers and practitioners around the world to model pedestrian flows along city streets. He has published a book entitled “Street Commerce: Creating Vibrant Urban Sidewalks” and before that, "Urban Network Analysis: Tools for Modeling Walking and Biking in Cities" with Tianjin University Press. Andres has collaborated with a number of city governments, international organizations, planning practices and developers on urban designs, plans and policies in both developed and rapidly developing urban environments, most recently including those in US, Indonesia, Australia, Lebanon, Estonia and Singapore. He has led various international research projects, published in planning, transportation and urban design journals, and received numerous awards for his work. Before joining MIT, Andres was an Associate Professor of Urban Planning and Design at the Harvard Graduate School of Design. He holds a PhD from the Department of Urban Studies and Planning and an SMArchs in Architecture and Urbanism from MIT.



Sarah Williams

Director of the Civic Data Design Lab.
Director of the Leventhal Center for Advanced Urbanism
Associate Professor of Technology and Urban Planning
Massachusetts Institute of Technology.

Sarah Williams is an Associate Professor of Technology and Urban Planning at the Massachusetts Institute of Technology (MIT) where she is also Director of the Civic Data Design Lab and the Leventhal Center for Advanced Urbanism. Williams’ combines her training in computation and design to create communication strategies that expose urban policy issues to broad audiences and create civic change. She calls the process Data Action, the name of her recent book published by MIT Press. Williams is co-founder and developer of Envelope.city, a web-based software product that visualizes and allows users to modify zoning in New York City. Before coming to MIT, Williams was Co-Director of the Spatial Information Design Lab at Columbia University’s Graduate School of Architecture Planning and Preservation (GSAPP). Her design work has been widely exhibited, including work in the Guggenheim, the Museum of Modern Art (MoMA), Venice Biennale, and the Cooper Hewitt Museum.