Course Syllabus

DESIGNING FOR ZERO: HOUSING, MOBILITY, ENERGY

Michael Bell, Professor of Architecture

Does a near century of federal housing policy and its attempts to instigate, provide and incentivize housing for the poor and for lower income households map onto or into the new future of infrastructure, energy and mobility technologies?

Or do we need fully new means to imagine what affordable and poverty housing means and how we imagine who designs it, how policy supports it, and who it might serve?

Our seminar will spend half the semester tracing the past century's evolution in housing and public housing policy and design means. The second half the semester will be spent focused on new technologies in energy, mobility and in how these factors could alter the future of public housing.

This seminar will explore the decreased direct role direct federal expenditures play in lower-income and public housing development in the United States since the advent in the 1980's of low-income housing tax credits (LIHTC) and other tax-based incentives for housing development.

The seminar lectures will address how changes in funding mechanisms have affected not only the development and design of lower-income and public housing but also how they these changes in means have been perceived and what impact they had on the engagement of planning and architecture practices with issues of poverty and low-income or affordable housing.

With a focus on parallel evolutions in architectural design and theory since the 1980's that has often seemed to neglect housing as a zone of experimentation, the seminar will explore how planning and architectural educations could do more to produce a counter to the status quo in all forms of housing production. The goal is re-imagine architecture and planning capabilities within a discussion of the financial practices as well the political philosophies of these shifts—more accurately within the seeming loss of an ability to critically discuss equity issues that many of the tax incentive practices often seem to dissimulate into market development models. Affordable housing as a product of tax credits, multi-tiered funding sources, and an architectural guise of "fitting in" with the quasi-vernacular of broader status quo developer housing models (and its constituency) has increasingly made it difficult to discuss the deeper meaning of both the political underpinnings of these policy shifts but also the potential of architectural and planning practices to affect the outcome—to enter the debate.

The seminar will be based on weekly lectures and discussion. Students will be asked to do extensive reading and be prepared to discuss the content. Each member of the

seminar will produce a research paper based on presenting a future of the seminar content.

Contemporary issues we will address in our weekly lectures and workshops:

1. ***How can Mobility, Infrastructure, and Energy Innovations Re-Create Housing Markets?***
2. ***How does a rapidly changing energy infrastructure alter what we imagine for the future of cities and urban development?***
3. ***The matrix of housing and mobility has affected architecture, urban development, housing markets, real estate mechanisms in a relatively consistent way for most of the past 75 years. What can we say about the future mechanisms -- do we know what will drive settlement?***

Week research and lectures will address:

-- What is public housing and why re-examine it today?

-- What were the key formative principles in public housing?

-- Should we start with the current conditions or return to the origins? Where are the origins? (De-mystify)

-- Deconstructing the Perceived Notions of Public Housing as Failed

-- Architecture and the Flow of Money; flow of space—The Post Bretton Woods global city.

-- Losing Support: Public Housing and Transformed

-- Topology: What is the shape of poverty today?

-- The Construction of the Local / Disaggregation of Aid and Subsidy

-- A false memory thwarts a closer look at history.

-- The Foreclosure Crisis and the State of Housing after the Crash

-- How does land vs. structure values interrelate in affordable housing and housing. What did mobility contribute to this dichotomy during the past century?

-- After LIHTC: While the Low Income Housing Tax Credit may seem an arcane branch of housing policy they also represent a scenario where federal roles in social advocacy (social ethics) and housing production often operate with their hand's tied; while great expenditures are in fact allocated they are injected into a status quo of housing development, and capital practices. In short, they are not seen as innovation engines but a means to ameliorate a market rather than alter its momentum. They seek to expand who the market serves but not to alter the market or the assets it distributes. Can we redesign this process? Indeed, do we see a future where Cabinet-

level agencies, DOE, DOT or HUD are not only outmoded but where their deep economic resources need to be redesigned? The next decade portends as much as $85 billion in LIHTC allocations; what team could make the case for new means to drive innovation with even a small portion of these funds? And who could benefit from the innovation these funds might bring?

Seminar Reading

CourseWorks: Readings are organized on CourseWorks in a series of folders that include

--Architectural History and Theory (work on themes of territory, subjectivity, architectural agency and authorship

-- Critical Writing on Housing Polic

-- Legal or Governmental/Congressional Documents

The seminar is open to all program within GSAPP and is designed to allow a greater depth of knowledge in housing and public housing but also affordable housing.

About the faculty:

Michael Bell is Professor of Architecture at Columbia University Graduate School of Architecture Planning and Preservation. Bell is founding Chair of the ***Columbia Conference on Architecture, Engineering and Materials***, a multi-year research program hosted at GSAPP in coordination with Columbia's Fu Foundation School of Engineering and Applied Science and the Institute for Lightweight Structures and Conceptual Design (ILEK) at the University of Stuttgart. Bell served as Director, Master of Architecture, Core Design Studios, (2000-14) and the Coordinator of the GSAPP Housing Design Studios (2000-11). This seminar will fuse work from housing and development, design and design theory, and engineering and new crossovers between architecture and materials/engineering.

A sample of research we will explore in this seminar: The Columbia Conference on Architecture, Engineering, and Materials:

http://visibleweather.com/images/ET_program_FV.pdf (Links to an external site.)
http://visibleweather.com/images/Solid_States_Bell.pdf (Links to an external site.)
http://visibleweather.com/images/Postductility_Bell_Program.pdf (Links to an external site.)
http://visibleweather.com/images/Plastics_program_FV.pdf (Links to an external site.)

Bell's architectural design has been commissioned/exhibited by The Museum of Modern Art, New York; The Venice Biennale; the Architectural League of New York; the University Art Museum, Berkeley and has been shown in museums and galleries in Europe, Mexico, and China. Architectural design by Bell is included in the Permanent Collection of the San Francisco Museum of Modern Art. His Gefter Press / Binocular House is included in American Masterwork Houses of the 20th and 21st Century by Kenneth Frampton. Bell has received four Progressive Architecture Awards.

Books by Michael Bell include ***Engineered Transparency****: The Technical, Visual, and Spatial Effects of Glass;* ***Solid States****: Concrete in Transition;* ***Post-Ductility:*** *Metals in Architecture and Engineering;* ***Permanent Change****: Plastics in Architecture and Engineering;* ***16 Houses: Designing the Public's Private House****;* **Michael Bell: Space Replaces Us**: Essays and Projects on the City; and ***Slow Space***. Bell is the editor of a monograph on the architecture of Stanley Saitowitz.

Bell taught at the University of California at Berkeley (1987-94) and Rice University (1994-99) and held visiting professorships at the Harvard University, Graduate School of Design; Cornell University, School of Architecture; the University of Michigan, Saarinen Visiting Professor of Architecture; and Berkeley, the Howard A. Friedman Professor of Practice in Architecture. Bell is a former Fellow of the Joint Center for Housing Studies, Harvard University (2011-13).

During 2016/17 Bell was Visiting Professor at the Stanford University, School of Engineering, where he collaborates with the Center for Design Research in the Department of Mechanical Engineering.

Bell is a founder of the **Urban Futures** project at Stanford University with Michael Shanks, Professor of Classics and the d-School, Stanford University. He is also a senior member of the Pao Sustainable Engineering and Materials Laboratory at Columbia Univesity.

Michael Bell received a Master of Architecture degree from the University of California, Berkeley and a Bachelor of Science degree from the Catholic University of America in Washington DC. He established his practice in Berkeley and San Francisco, California. Today the practice also includes Eunjeong Seong and is based in New York City and Berkeley, California.

https://www.amazon.com/Michael%20Bell/e/B001K7V4QG/ref=la_B001K7V4QG_st?rh=n%3A283155%2Cp_82%3AB001K7V4QG&qid=1510795766&sort=date-desc-rank (Links to an external site.)Links to an external site.
http://www.moma.org/interactives/exhibitions/2012/foreclosed/temple_terrace (Links to an external site.)Links to an external site.
http://www.houstonpress.com/2000-11-09/news/not-your-standard-issue/full/ (Links to an external site.)Links to an external site. (Links to an external site.)Links to an external site.
https://ced.berkeley.edu/ced/faculty-staff/michael-bell (Links to an external site.)