



Researching Research

ARCHA4538 R 4-6pm Buell Hall 300 S

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This seminar examines the history and theory of applied research practice in recent architecture and urbanism, and in turn, experiments with the production of novel techniques of inquiry.

Research is everywhere. Architects make materials, incite public action, archive urban life, and invent design protocols. They sidestep traditional models of practice, at times to launch unsolicited provocations into the world, and at others to join forces with foundations and government think tanks. Research methods resonate across disciplines, in both scholarship and practice. Discussions previously resident in the laboratory and classroom have found new currency in office towers and town halls. The dominance of research practice today can be attributed in part to the rise of computing technologies—consider data mining, the search engine, and rapid prototyping. Architects today also seek new tools to grasp the volatility of markets and climates, and to fathom the elusiveness of neoliberal governance and mobile populations. Still, many research methods are not new, and extend to a history of invention and spirit of curiosity in the field.

This course is structured around a series of topics, each focused on a technique or protocol of applied research. For each topic, we will examine texts and projects to evaluate their implications for contemporary practice. Topics such as ‘Test Subjects,’ ‘Conflict of Interest,’ and ‘Degrees of Certainty,’ for example, will examine the ethical implications of real-time testing, the influence of research funding sources, and degrees of fidelity in quantitative analysis.

On Research Practice

Research makes explicit the political, economic, cultural and aesthetic narratives latent in the built environment, and works with the very mechanisms through which such meanings take shape. Thus, tensions between settlement patterns, labor practices and supply chains are revealed just as machines for material assembly are retooled. Quarantine practices are opened up for debate just as data collected by state bureaucrats are reworked into scatter plot maps at an unexpected scale.

The techniques of research are both subject and method. Whether tools come from design disciplines (models, drawings and specifications, for example) or beyond (consider performance testing or ethnographic field studies), they come with particular histories and tendencies. Yet, is there anything inherently charged about data mining, drones, or the engineering of new organisms? Or about soliciting sponsorship from the US Department of Defense or DuPont?

To accept or deny such models wholesale would be to reinforce an impossible division between a critical and a positivist model, between condemning the tools of power and unleashing them into the world unchecked. The real question, instead, is how researchers design the reach of their inquiry through aggressive action of their own.

Debates about Research

We will examine research histories and projects to challenge their presumed criteria and open up new ideas for future practice.

Post-war federal funding for research and development in American universities precipitated what Arindam Dutta calls the now ubiquitous reliance on rule-based judgments and verifiability. Even where verifiability is possible, what are the terms of proof? How do we make decisions in uncertain conditions? How might the ‘paranoid critical’ make claims to theories of the city amidst the drive for empirical proof? How do quantifiable outcomes leave room for architects to exercise judgment?

Another ubiquitous benchmark—innovation—aspires to solve problems in the name of growth. The market demands ever faster, smaller, more efficient technologies. City governments stoke a growing tax-base. Designers clamor for the next greatest thing. Which problems do these innovations address? When should we

emphasize newness over the reconfiguration of existing resources? What are the side effects of untested technologies? Does casting forward overshadow the tendency for research to look back, as the term suggests?

Certainty and innovation narratives require a second glance, but they cannot be overlooked. These claims enable researchers to wield influence, and to relay architectural discussions to parallel investigations in other fields. Through research practice, architects gain a seat at the table, but which table? For whom and from who do architects seek legitimacy?

The term applied research, as opposed to basic or pure research, conventionally describes inquiry swayed by practical concerns or R&D capital. Perhaps a more productive approach would embrace the entangled nature of research in the messy world of what Bruno Latour calls the World Wide Lab, and to experiment with the very problem of application and autonomy. As an applied practice, research promises to engage contemporary actors, sites and techniques, combining experimentation with inquiry into researchers' ethical responsibility.

Reading Responses

Each week, write a 100-150 word statement that poses a critical question or asserts an argument about the week's topic, to be informed by the readings. Email to the instructor by 3pm each Thursday.

Class Presentation

Make one 20-30 minute presentation on an applied research project(s) in architecture that exemplifies and/or challenges the topic at hand. You are encouraged to demonstrate considerable detail about technique and research process, in reference to the week's readings and available critical writings on your subject. Presentations are to cover (1) one of the 'required' projects listed below with the option to add one other project for comparison/context if you wish, or (2) one postwar 'elective' project of your choice. Sign ups will take place on Courseworks between February 6-7.

Final Project / Re-Research

For your final project, you are asked to craft unique methods of research and test them on a previously completed research project from current or past seminars, design studios, or visual studies at the University.

The selected project must be completed prior to our first pin-up. You are not required to generate new evidence or findings in your work, although you may do so. Instead, you are encouraged to focus on the form and presentation of your research to critique its key agenda in response to critical issues facing applied research in architecture. In other words, you will experiment with the form of research in order to revisit its content.

Method of Evaluation

Class Participation and Reading Responses: (40%)

Attend each class

Play an active role in reading discussions and project critiques during class

Written response to each reading

Class Presentation: (20%)

Final Project: (40%)

Prerequisites

There are no prerequisites for this course. Students from the GSAPP and beyond are encouraged to join.

Schedule and Readings

Required readings are listed in black/recommended in grey. Unless otherwise noted, readings are posted here: <https://www.dropbox.com/sh/1ffpkjxf1b7g0bo/stIh87kOnl>.

wk 0 Jan 23: Introduction

wk 1 Jan 30: The Status Quo

Texts

- Brendan Moran, "Research" in Ockman, Joan, *Architecture school : Three Centuries of Educating architects in North America*, MIT Press 2012. (386-391)
- Allen, Stan, "The Future that is Now: 1990-2012," in Ockman, Joan, *Architecture school : Three Centuries of Educating architects in North America*, MIT Press 2012. (204-229)
- Dutta, Arindam, "Linguistics, Not Grammatology: Architecture's A Prioris and Architecture's Priorities," *A Second Modernism: MIT, Architecture, and the 'Techno-Social' Moment*, (MIT: 2013), (2-69)
- Bannister, Turpin C. "The Research Heritage of the Architectural Profession," *Journal of Architectural Education* 1 (1947): 5–12.
- Cuff, Dana, *Architecture : the story of practice*, Cambridge, Mass. : MIT Press, c1991. [see CLIO]
- Gutman, Robert, *Architectural Practice: A Critical View, and Architecture: From the Outside In*. New York : Princeton Architectural Press, 2010. [see CLIO]
- Foster, Hal, "Bigness," *London Review of Books* 23, http://www.lrb.co.uk/v23/n23/fost01_.html
- Gandy, Matthew, "Learning from Lagos," *New Left Review* 33 (May/June 2005): 37-52.
- Geiser, Reto, ed. *Explorations in Architecture: Teaching, Design, Research*, with contributions by Angelus Eisinger, Sanford Kwinter, Bruno Latour, Rolf Pfeifer, Georges Teyssot et. al. Birkhäuser <http://www.designexplorations.org/pages/site/en/home.php>, and see CLIO]
- Harwood, John, "How Useful? The Stakes of Architectural History, Theory and Criticism at MIT, 1945-1976), *A Second Modernism: MIT, Architecture, and the 'Techno-Social' Moment*, (MIT: 2013) [see CLIO]
- Inaba, Jeffrey, "Maybe. The Harvard Project on the City asks 'Has the City Outgrown Architecture?'" in *Content / AMOMA Rem Koolhaas, (Koln: Taschen, 2004)*, 256–257. [see CLIO]
- Koolhaas, Rem "Postscript: Introduction for New Research on The Contemporary City," in *A+U* 217 (October 1988), 152
- Lootsma, Bart, "The need of research". *Daidalos Special Issue*, no. 69/70, 1998-99/p. 8-152.
- Ockman, Joan and Sachs, Avigail, "Modernism Takes Command," in *Architecture school : Three Centuries of Educating architects in North America*, MIT Press 2012. (386-391)
- Powers, Matt, "Toward a Discipline-Dependent Scholarship," *Journal of Architectural Education* (1984-) Vol. 61, No. 1, Architectural Design as Research, Scholarship, and Inquiry (Sep., 2007) (pp. 15-18)
- Sachs, Avigail, "The Postwar Legacy of Architectural Research," *Journal of Architectural Education* (1984-), Vol. 62, No. 3, Criticism in Architecture (Feb., 2009), pp. 53-64
- Salomon, David, "Experimental Cultures: On the "End" of the Design Thesis and the Rise of the Research Studio," *Journal of Architectural Education* (1984-) Vol. 65, No. 1 (October 2011) (pp. 33-44)
- Varnelis, Varnelis "Is There Research in the Studio?" *Journal of Architectural Education* 61, no. 1 (2007)

wk 2 Feb 6: Pin-Up: Re-Research

Each student to present a previously completed research project in 5 minutes. Group discussion.

wk 3 Feb 13 Class Cancelled

wk 4 Feb 20: Test Subject / Laboratories

Texts

- Latour, Bruno and Woolgar, Steve, *Laboratory Life: the Construction of Scientific Facts*, (Princeton: 1986), (45-53, 69 (top)–72, photographs 91-103)
- Latour, Bruno, “World Wide Lab”, in *Wired*, Issue 11.06 http://www.wired.com/wired/archive/11.06/research_spc.html, (June 2003).
- Ponte, Alessandra, “Desert Testing,” in *Lotus International*, Issue 114, 2002, (56-79)
- Koolhaas, Rem, “Coney Island: The Technology of the Fantastic” *Delirious New York*. New York : Oxford University Press, 1978 (29-79)
- Latour, Bruno, “Love Your Monsters: Why We Must Care for Our Technologies As We Do Our Children,” *The Breakthrough*, Winter 2012 [<http://thebreakthrough.org/index.php/journal/past-issues/issue-2/love-your-monsters/>]
- Shapin, Steven and Schaffer, Simon, *Leviathan and the Air-Pump: Hobbes, Boyle and the Experimental Life*, (Princeton: 1989) [see CLIO]

wk 5 Feb 27: The Ordinary and Everyday

Texts

- Enrique Walker, “Postscript,” in *Behaviorology / Atelier Bow-Won*; Yoshiharu Tsukamoto + Momoyo Kaijima. New York: Rizzoli, 2010 (347-349).
- Golec, Michael, “Format and Layout in *Learning from Las Vegas*,” in Vinegar, Aron Golec, Michael J. *Relearning from Las Vegas* (University of Minnesota Press 2009) (31-48)
- Highmore, Ben, “Hopscotch Modernism: On Everyday Life and the Blurring of Art and Social Science” in *Modernist Cultures*, Volume 2, Issue 1 (Summer 2006) (70-79)
- Welter, Volker, “Talking Squares—Grids and Grilles as an Architectural Tools for Analysis and Communication”, in *Team 10 between Modernity and the Everyday*, ed. Dirk van den Heuvel and Gijs de Waal (Delft: Technische Universiteit, 2004), pp. 181-189
- Avermaete, Tom, *Another Modern: The Post-War Architecture and Urbanism of Candilis-Josic-Wood*, (Nai Publishers 2006), (pages tbd)
- Banham, Reyner, “Reyner Banham Loves LA” (1972) film. [Vimeo]
- Bois, Yve-Alain “Metamorphosis of Axonometry.” *Daidalos 1* (September 1981): 41-58. [see CLIO]
- Costanzo, Denise, “Travel, Trips, Study Abroad,” in Ockman, Joan, *Architecture school : Three Centuries of Educating architects in North America*, MIT Press 2012. “Grand Tour,” *Perspecta 41* (2008)
- de Certeau, Michel and Rendall, Steven, *The Practice of Everyday Life*, (Berkeley 1984). [see CLIO]
- Koolhaas, Rem and Scott-Brown, Denise (Interview) “Re-Learning from Las Vegas” in *Content / AMOMA Rem Koolhaas*, (Köln: Taschen, 2004)
- “The As Found and the Found,” in *The Independent Group: Postwar Britain and the Aesthetics of Plenty*, edited by David Robbins (Cambridge, MA: The MIT Press, 1990), [see CLIO]
- Ockman, Joan, “Bestride the World Like a Colossus: The Architect as Tourist,” in *Architourism* (New York: Prestel, 2002), 158-185.

Projects

- Smithsons: The Urban Re-Identification Grid
- Robert Venturi, Denise Scott Brown, Steven Izenour, *Learning from Las Vegas: The Forgotten Symbolism of Architectural Form*. Cambridge, MA: The MIT Press, 1977.
- Momoyo Kaijima, Junzo Kuroda and Yoshiharu Tsukamoto, *Made in Tokyo*. Tokyo: Kajima Shuppankai, 2001.

wk 6 Mar 6: Archive as Evidence

Texts

- Achille Mbembe, "The Power of the Archive and Its Limits," in Carolyn Hamilton et al. eds. *Refiguring the Archive*. Cape Town: David Philip, 2002, 19-26.
- Joan W. Scott, "The Evidence of Experience," *Critical Inquiry*, Vol. 17, No. 4 (Summer, 1991), pp. 773-797.
- Eyal Weizman and Andrew Herscher, "Conversation: Architecture, Violence, Evidence," *Future Anterior*, April, 2007.
- Lev Manovich. "Trending: The Promises and the Challenges of Big Social Data." in *Debates in the Digital Humanities*, edited by Matthew K. Gold. The University of Minnesota Press, 2012.
- Dirks Nicholas B., "Annals of the Archive: Ethnographic Notes on the Sources of History." in *From the Margins: Historical Anthropology and Its Futures*, Brian Keith Axel ed. Durham and London: Duke University Press, 2002, 47-65.
- Derrida, Jacques, *Archive Fever: a Freudian Impression*. Chicago: University of Chicago Press, 1996. [see CLIO]
- Peter Galison, "Blocking Things Public", *Making Things Public*, ed. Bruno Latour [see CLIO]
- Kwinter, Sanford, "Urbanism: An Archivist's Art" (pp494-507) in *Mutations: Rem Koolhaas, Harvard Project on the City*. [see CLIO]
- Latour, Bruno, "Drawing Things Together," in Michael Lynch and Steve Woolgar, eds., *Representation in Scientific Practice* (Cambridge: MIT Press, 1990), 19-68. [see CLIO]

Projects

- Kayden, Jerold, *Privately Owned Public Space : The New York City Experience* (Wiley, 2000)
- Eyal Weizman, Hollow Land and other projects

wk 7 Mar 13: Desk Crits on Research Projects

spring break

wk 8 Mar 27: Degrees of Certainty

Texts

- Igo, Sarah, *The Averaged American*, (Cambridge: 2007) (1-22, 23-67), [CLIO online book]
- Le Corbusier, *The City of Tomorrow and Its Planning* (London: Dover Publications, 1987), (118-138)
- Muzaffar, Ijlal M. "Fuzzy Images: The Problem of Third World Development and the Ethics of open-Ended Planning at the MIT-Harvard Joint Center for Urban Studies" in *A Second Modernism: MIT, Architecture, and the 'Techno-Social' Moment*, (MIT: 2013) (310-341)
- David Gissen, "Architecture's Geographic Turns," *Log* 12 (2008): 59-67.
- Appadurai, Arjun *Modernity at Large* (Minneapolis and London: University of Minnesota Press, 1998) [see CLIO]
- Bataille, Georges, "The Deviations of Nature," in *Visions of Excess* (Minneapolis: University of Minnesota Press, 1985). [see CLIO]
- Canguilhem, Georges *The Normal and Pathological* (New York: Zone Books, 1991) [see CLIO]
- Cupers, Kenny, "Designing Social Life: The Urbanism of the *Grands Ensembles*," in *Positions: On Modern Architecture and Urbanism/Histories and Theories*, no. 1 (Spring 2010).

- Dantzig, Tobias. *Number: The Language of Science*, (Free Press: 1967) [see CLIO]
- Doxiadis, Constantinos A., *Ekistics : An Introduction to the Science of Human Settlements* (Oxford University Press: 1968) [see CLIO]
- Galison, Peter “Aufbau/Bauhaus: Logical Positivism and Architectural Modernism,” *Critical Inquiry* 16, No. 4 (Summer 1990): 709-752.
- Gissen, David, “Drawing Air: The Visual Culture of Bio-political Imaging,” in Marco Frascari, Jonathan Hale, and Bradley Starkey, eds., *From Models to Drawings: Imagination and Representation in Architecture* (London: Routledge, 2007), 155-167. [see CLIO]
- Kelsey, Robin Earle, *Archive style: Photographs and Illustrations for US surveys, 1850-1890* (University of California Press 2007) [see CLIO]
- Kurgan, Laura *Close Up at a Distance: Mapping, Technology, and Politics* (New York: Zone Books, 2013), “Introduction,” 9-38. [see CLIO]
- McDonough, Tom ed., *The Situationists and the City* (New York: Verso, 2009), Chap. 6, “The Critique of Urban Planning,” 139-167. [see CLIO]
- McLuhan. Marshall , “Numbers” in *Understanding Media (New American Library: 198?)* [see CLIO]
- Polo, Alejandro Zaera and Moussavi. Farshid “FOA Code Remix” in 2G, no.16
- Voussoughian, Nader I (Rotterdam: NAI Publishers, 2011), [see CLIO]

Projects

- Constantine Doxiadis and Ekistics
- Harvard Project on the City publications (Shopping, Pearl River Delta, Lagos, Mutations, etc.)
- Ernst Burgess, and the Chicago School of Sociology: Chloropleth maps
- Spatial Information Design Lab, Million Dollar Blocks

wk 9 Apr 3: Performance

Texts

- Edwards, Paul, *The Closed World: Computers and the Politics of Discourse in Cold War America* (Cambridge: MIT Press, 1996), Chap. 4, “From Operations Research to the Electronic Battlefield,” 113-145.
- May, John, "The Becoming-Energetic of Landscape," in *New Geographies*, No. 2 "Landscapes of Energy," pp. 23-32. Cambridge: Harvard University Press (2010)
- Nye, David E. “Energy in the Thought of R. Buckminster Fuller,” in Hsiao-Yun Cho and Roberto G. Trujillo eds., *New Views on R. Buckminster Fuller* (Stanford: Stanford University Press, 2009), 86-98.
- Meredith, Michael, *From Control to Design: Parametric/ Algorithmic Architecture*, with Aranda-lasch, Mutsuro Sasaki, ed, (4-9)
- Cache, Bernard, *Earth Moves: The Furnishing of Territories*, trans. Anne Boyman (Cambridge: MIT Press, 1995) [see CLIO]
- Lenoir, Timothy, “Flow, Process, Fold: Intersections in Bioinformatics and Contemporary Architecture,” in Antoine Picon and Alessandra Ponte, eds., *Science, Metaphor, and Architecture* (New York: Princeton Architectural Press, 2003), 314-353. [See CLIO]
- May, John, "The Logic of the Managerial Surface," in *Praxis Journal of Writing + Building*, No. 13 "Ecologies."
- McHarg, Ian, “Nature in the Metropolis” and “Process as Values” in *Design with Nature* (Wiley 1992) (55-65, 103-115)
- Pai, Hyungmin, *The Portfolio and the Diagram: Architecture, Discourse, and Modernity in America* (Cambridge: MIT Press, 2002), Chap. 7, “Scientific Management and the Discourse of the Diagram,” 40-73. (163-197) [See CLIO]

- Schumacher, Patrik, *The Autopoiesis of Architecture: A New Framework for Architecture*, Vol. 1 (Chichester: John Wiley & Sons, 2011) [see CLIO]
- Scott, Felicity D., “Fluid Geographies: Politics and the Revolution by Design,” in Hsiao-Yun Cho and Roberto G. Trujillo eds., *New Views on R. Buckminster Fuller* (Stanford: Stanford University Press, 2009), 160-175. [See CLIO]

Projects

- Buckminster Fuller, World Game
- CASE @ SOM/Rensselaer
- CBIP

wk 10 Apr 10: Oral History vs. the Interview

Texts

- Interboro Partners, “Interboro on Ghostwriting,” www.interboropartners.net/2008/interboro-on-ghostwriting.
- Portelli, Alessandro “Oral History as Genre,” *The Battle of Valle Giulia: Oral History and the Art of Dialogue*. Madison, Wis.: University of Wisconsin Press, 1997 (3-23)
- Portelli, Alessandro, “Research as an Experiment in Equality,” and “What Makes Oral History Different,” from *The Death of Luigi Trastulli, and Other Stories* (New York: State University of New York press, 1991):29-58. [online CLIO]
- Walker, Enrique, *Tschumi on Architecture: Conversations with Enrique Walker*. New York: The Monacelli Press, 2006. (Intro 9-11, “The Manhattan Transcripts’ 31-44)
- Passerini, Luisa, “Italian Working Class Culture between the Wars: Consensus to Fascism and Work Ideology,” *International Journal of History*, Feb 1980.

Projects

- Andres Jaque
- Interboro

wk 11 Apr 17: Engagement

Texts

- Deutsche, Rosalyn, “The Social Production of Space: Krzysztof Wodiczko’s Homeless Projection and the Site of Urban ‘Revitalization,’” in *Evictions: Art and Spatial Politics*: pages 3-49.
- Schaeffer, Simon, “Public Experiments,” in *Making Things Public*, ed. Bruno Latour
- Hirsch, Michael, “The Space of Community: Between Culture and Politics” in *Did Someone Say Participate? An Atlas of Spatial Practice* (Cambridge: The MIT Press, 2006) 290- 304.
- McKee, Yates, “Debt: Occupy, Postcontemporary Art, and the Aesthetics of Debt Resistance” *The South Atlantic Quarterly* 112:4, Fall 2013 (784-798)
- Basar, Shimon, “The Professional Amateur,” (30-34) in *Did Someone Say Participate? An Atlas of Spatial Practice* (Cambridge: The MIT Press, 2006) [see CLIO]
- Robbins, Bruce, *The Phantom Public Sphere* (vii – xxvi) [see CLIO]
- Roche, Francois, “Don’t Fuck the Authorship-lessness,” (57-8) in *Did Someone Say Participate? An Atlas of Spatial Practice* (Cambridge: The MIT Press, 2006) [see CLIO]
- Warner, Michael “The Image of the Body and Totalitarianism” in *Publics and Counterpublics* (New York: Zone Books, 2002). [see CLIO]

Projects

- Estudio Teddy Cruz
- Creative Time
- Center for Urban Pedagogy

wk 12 Apr 24: Conflicts of Interest

Texts

- Kim, Jeannie. "C.A. Doxiadis and the Ford Foundation." In *Hunch: the Berlage Institute report* 13 (2009): 78-91, 168. (78-96)
- Scott, Felicity, "DISCOURSE, SEEK, INTERACT: Urban Systems at MIT," in *A Second Modernism: MIT, Architecture, and the 'Techno-Social' Moment*, (MIT: 2013) (342-393)
- Stor, Kate, "100 Years of Humanitarian Design," in *Design Like You Give a Damn*, (Metropolis Books 2006).
- Kieran, Stephen and Timberlake, James, *Refabricating Architecture: How Manufacturing Methodologies are Poised to Transform Building Construction Paperback* (McGraw-Hill 2004). (105-129)
- Bratton, Benjamin, "We Need to Talk about TED," *The Guardian*, Dec 30 2012, [<http://www.theguardian.com/commentisfree/2013/dec/30/we-need-to-talk-about-ted>]
- Sinclair, Cameron, "I hope it's a Long List," in *Design Like You Give a Damn*, (Metropolis Books 2006)
- *Inside Job*, Documentary film, Columbia TriStar Home Entertainment (2011) [See CLIO]
- Peggy Deamer and Phillip G. Bernstein, eds. *Building (in) the Future: Recasting Labor in Architecture* (New York: Princeton Architectural Press, 2010) [see CLIO]
- Sachs Avigail, "Prefabrication Pedagogy," in *A Second Modernism: MIT, Architecture, and the 'Techno-Social' Moment*, (MIT: 2013) [See CLIO]

Projects

- Charles and Ray Eames
- Graham Foundation
- Municipal Arts Society

Date TBD: Final Review

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