

Spring 2013
College of Architecture
Georgia Institute of Technology
ARCH 4803/COA 6120: RETROFITTING SUBURBIA

- instructor:* Ellen Dunham-Jones, edj@gatech.edu,
Mezz 3, 404 894 0648, office hours by appt.
- time:* T, 6:05-8:55pm, Rm 260 Architecture West
- credits:* 3
- description:* This course examines the retrofitting of dead malls, dying office parks, aging subdivisions, decaying commercial strip corridors, etc., into more sustainable places. Students will learn to think creatively about how to reinhabit, redevelop, and regreen these underperforming properties. Readings and discussions will focus on the forces driving retrofitting, redevelopment processes, the urban design techniques employed in built case studies and hypothetical proposals, and new measures and tools for advancing sustainable urban design at the building, neighborhood and metropolitan scale. The majority of classtime will be devoted to discussion of readings and presentation of individual research projects.
- learning objectives:* In addition to gaining knowledge about suburban redevelopment history, processes, case studies, and design strategies at multiple scales, students will develop the ability to:
- Critically evaluate various measures of success in suburban retrofits
 - Select appropriate urban design tools for contemporary urban design problems
 - Analyze complex case studies and present proposals for solutions that integrate multiple objectives
 - Conduct research that advances understanding of retrofitting suburbia
 - Identify societal problems and emerging markets in need of critical and creative design solutions
- requirements:* Grading for COA 6120/Arch 4803 will be based upon participation in class discussions (25%/25%), weekly reading and question synopses (25%/25%), research/*project* presentation(20%/20%) and final presentation & paper (30%/30%). Undergraduate students will present a retrofit project rather than performance metric research.
- accommodations:* Students with disabilities requiring accommodations must obtain an accommodations letter from the ADAPTS Office [www.adapts.gatech.edu] to ensure appropriate arrangements.
- honor code:* This course is to be conducted according to Georgia Tech's Academic Honor Code, please see [http://www.catalog.gatech.edu/rules_regulations/#18].

Schedule

<i>Jan 8</i>	Overview: Retrofitting Suburbia
<i>Jan 15</i>	Historical and Contemporary Context
<i>Jan 22</i>	Demographic Changes and Residential Retrofits
<i>Jan 29</i>	Automobile Dependence and Commercial Strip Retrofits
<i>Feb 5</i>	Malls vs Main Streets
<i>Feb 12</i>	Retrofitting edge cities, office parks, finance and work
<i>Feb 19</i>	Reinhabitation and Tactical Urbanism: Research Proposals 1
<i>Feb 26</i>	Regreening: Research Proposals 2
<i>Mar 5</i>	Retrofitting at the Metro-Scale
<i>Mar 12</i>	Retrofitting in Atlanta
<i>Mar 19</i>	<i>Spring Break</i>
<i>Mar 26</i>	Next Generation Retrofits
<i>Apr 2</i>	Student Presentations
<i>Apr 9</i>	Student Presentations
<i>Apr 16</i>	Student Presentations
<i>Apr 23</i>	Architecture Final Reviews: No Class
<i>May 1</i>	Final Paper Due

Readings

All required readings are marked by a bullet in the course schedule and are to be completed prior to that week's class. Optional readings are so indicated. *Retrofitting Suburbia* (John Wiley & Sons, paperback edition 2011) is the course's principal textbook. It will be read in full and while a copy will be placed on reserve in the library, it is recommended that students purchase their own copy. Additional readings will either be on reserve in the library and marked with an (L) or available as pdfs in T-Square (T) or available online.

Assignments

1. Each student is responsible for doing the required reading for each week and submitting a brief synopsis to T-Square ahead of class of what they learned, and what questions the reading stimulated for them. This is to assist students in reflecting upon the readings and being prepared for the class discussion. Each reading summary should start with the students' one or two primary questions, followed by a paragraph summarizing the overall subject of the readings, followed along with observations comparing the different authors and bullet points you think are worth remembering. Responsibility for kicking off the week's discussion by presenting one's summary and questions will rotate through the students.
2. Graduate students will be paired into teams to research a particular performance metric (walkability, heat island effect, water quality, social capital, etc.) and to develop a tool for measuring the before and after performance of retrofitted suburban sites. Each team will present their initial findings in a 10-minute powerpoint. Then apply their tool to selected projects and present a final 20-minute powerpoint that is to then be submitted as an illustrated, written term paper.
3. Undergraduate students will produce figure-field before and after documentation of a specific retrofit and present the project in a 5-minute powerpoint. Then analyze their project's performance according to several of the tools developed by the grad students. The final story and performance of the retrofit will be presented in a 10-minute powerpoint and submitted as an illustrated, written term paper.

Course Schedule

- Jan 8 Overview: Retrofitting Suburbia
Discuss syllabus, research project. EDJ lecture on Retrofitting Suburbia.
- Jan 15 Historical and Contemporary Context
Discussion of: history of suburbanization; urbanism's impacts on public health; defense of "sprawl" and resistance to "sustainable development." Selection of topics for research paper.
- *Retrofitting Suburbia* – pp.iii-14, the Color Portfolio, p.230-233.
 - (L) Howard Frumkin et al., *Urban Sprawl and Public Health*, (2004.) - the preface, pp.xi-xvii, overview pp.22-25 and chapter 2, pp.26-43, "The Origins of Sprawl." The book is on reserve and is worth becoming familiar with.
 - (T) Charles Marohn, *Curbside Chat Companion Booklet*. Download available from Strong Towns website at <http://www.strongtowns.org/companion-booklet/>
 - "Agenda 21 – What is it, How Did it Come About and What Can Be Done About it?" and "Agenda 21 Summary-Michael Shaw" (this is the second video in the list on the lower part of the page.) <http://www.teapartyfire.com/agenda21.php>.
 - OPTIONAL: Robert Bruegman, *Sprawl, A Compact History* (U Chicago Press, 2005). Historical arguments in favor of decentralized development.
 - OPTIONAL: (L)"Introduction and Chapter 1: Principles", *New Urbanism Best Practices Guide*, 4th edition, Robert Steuteville, Philip Langdon eds., (New Urban News Publications, 2009) pp.9-28. This book is on reserve and is a useful resource to become familiar with.
 - OPTIONAL: Ellen Dunham-Jones, "New Urbanism's Subversive Marketing" in Michael Shamiyeh ed., *What People Want*, (Birkhauser, 2005, pp.254-269). This article was republished and is also available in *Worlds Away: New Suburban Landscapes*. A digital version – but without the illustrations – is available here: <http://smartech.gatech.edu/handle/1853/24447>
 - OPTIONAL: Kevin Kruse, Thomas Sugrue, *The New Suburban History*, (U. Chicago, 2006)
 - OPTIONAL: Andrew Dannenberg, Richard Jackson, Howard Frumkin, *Making Healthy Places: Designing and Building for Health, Well-being, and Sustainability* (2011)
- Jan 22 Demographic Changes and Residential Retrofits.
Discussion of: residential retrofits; suburban markets and demographics, gentrification and impact on downtowns. EDJ lecture on new residential retrofits.
- *Retrofitting Suburbia* – pp.16-58
 - Christopher Leinberger, "The Next Slum?" *The Atlantic*, March 2008 and online at: <http://www.cleinberger.com/AdminHome.asp?ArticleID=205> (click on the 20th link in the list)
 - (T) Skim: The Brookings Institution, "State of Metropolitan America Report: Demographic Change in the Nation's 100 Largest Metros,"
 - (T) Arthur C. Nelson and Robert E. Lang, "The Next 100 Million," *Planning*, January 2007.
 - OPTIONAL: Sean F. Reardon, Kendra Bischoff, "Growth in the Residential Segregation of Families by Income, 1970-2009", (Russell Sage Foundation, November 2011)
 - OPTIONAL: Arthur C. Nelson, *Reshaping Metropolitan America* (Island Press, 2013)
 - OPTIONAL: Jerry Ascierio, "Demographics & Demand: Apartment Finance Today," www.housingfinance.com/aft/articles/2010/november-december/1110-feature-Market-Movers.htm.

- OPTIONAL: “The Suburban Poor: An Interview with Elizabeth Kneebone and Scott Allard.” www.prx.org/pieces/54573-the-suburban-poor-an-interview-with-elizabeth-kneebone
- OPTIONAL: Kevin DeGood, “Aging in Place, Stuck without Options: Fixing the Mobility Crisis Threatening the Baby Boom Generation”, (Transportation for America, 2011) <http://t4america.org/resources/seniorsmobilitycrisis2011>.
- OPTIONAL: Michael Brill, “Mistaking Community Life for Public Life,” *Places* 14 (2), 11/2001, available online at: http://places.designobserver.com/media/pdf/Mistaking_Comm_327.pdf
- OPTIONAL: Kathryn Lawler, “Lifelong Communities: How Can We Age in Place?”, Jonathan Lerner ed., *Building Metropolitan Atlanta: Past, Present & Future* (Congress for the New Urbanism 18, 2010), pp.33-35.
- OPTIONAL: Emily Talen, “Affordability in New Urbanist Development: Principle, Practice and Strategy,” *Journal of Urban Affairs*, vol 32, #4, (2010)
- OPTIONAL: Center for Housing Policy, “A Heavy Load: The Combined Housing and Transportation Burdens of Working Families” (2006)
- OPTIONAL: S. Mitra Kalita and Robbie Whelan, “No McMansions for Millennials,” *The Wall Street Journal*, January 13, 2011
- OPTIONAL: Joel E. Cohen, “Seven Billion,” *The New York Times*, October 23, 2011
- OPTIONAL: Sabrina Tavernise and Robert Gebeloff, “Immigrants Make Paths to Suburbia, Not Cities,” *The New York Times*, December 14, 2010

Jan 29

Automobile Dependence and Commercial Strip Retrofits.

Discussion of commercial strips; health, social, and cost impacts of auto-dependence; location efficiency; street networks, complete streets and performance metrics.

- *Retrofitting Suburbia* – pp. 59-107
- Visit the <http://htaindex.cnt.org/> and read up on the Housing Plus Transportation Affordability Index. Click on a metro you know well and look at the maps for housing at 30% of hh income vs housing plus transportation at 45%, (this is the default.) Then, go up to the small light blue box titled “change” and look at several other comparisons: your metro’s typical household vs national household on CO2 emissions, average block size, residential density, transportation costs in 2000 vs 2008, etc. Zoom in and out to look at your specific neighborhood.
- (T) Jeffrey Tumlin, “Measuring Success,” *Sustainable Transportation Planning* (Wiley, 2012)
- (T)Jonathan Rose Companies, “Location Efficiency and Housing Type: Boiling it Down to BTUs,” (EPA, 2011) online at: http://www.epa.gov/smartgrowth/pdf/location_efficiency_BTU.pdf
- OPTIONAL: 2012 EPA Smart Growth Project of the year: retrofit of an arterial back into Lancaster CA’s Main Street: <http://sdapa.org/go/lancaster-showcases-model-living-street/> and the project’s economic performance: <http://www.theatlanticcities.com/design/2013/01/case-walkability-economic-development-tool/4317/>
- OPTIONAL: Donald C. Shoup, *The High Cost of Free Parking*, (American Planning Association, 2005)
- OPTIONAL: Michael Freedman, “Restructuring the Strip,” *Places*, 17(2), summer 2005, online: http://places.designobserver.com/media/pdf/Restructuring__392.pdf
- OPTIONAL: LEED ND Report on Public Health and the Built Environment by Community Design & Environment, Reid Ewing, Lawrence Frank. Download at <http://www.cnu.org/node/559>

Feb 5

Malls, Main Streets and “Town Centers”

Discussion of: mall retrofits; consumerism's place in civic life; happiness; EDJ lecture on new mall retrofits. Research project progress. **Students should be prepared to report briefly on the sources they have found for their research project.**

- *Retrofitting Suburbia* – pp.108-171
- Galina Tachieva, "Shopping Mall," *The Sprawl Repair Manual* (2010) pp129-149.
- OPTIONAL: Robert Gibbs, *Principles of Urban Retail Planning and Development* (Wiley, 2012). Chapters 6 and 7, "Shopping Center Built-Form Types" and "Planning and Urban Design" are particularly recommended.
- OPTIONAL: David Smiley ed., *Sprawl and Public Spaces: Redressing the Mall* (National Endowment for the Arts, 2002)
- OPTIONAL: CNU's Greyfield Mall Study (three parts all of which can be downloaded from www.cnu.org/malls): *Greyfield Regional Mall Study* (2001), *Greyfields Into Goldfields: Dead Malls Become Living Neighborhoods* (2002), and *Malls Into Mainstreets* (2005)
- OPTIONAL: Michael Sorkin ed, *Variations on a Theme Park: The New American City and the End of Public Space* (Hill and Wang, 1992)
- OPTIONAL: M. Jeffrey Hardwick, *Mall Maker; Victor Gruen, Architect of an American Dream*, (U Pennsylvania, 2003)

Feb 12

Retrofitting edge cities, office parks and the world of work

Discussion of edge city, office and industrial park retrofits; the spatial separation of home and work; the Creative Class; centralization vs decentralization.

- *Retrofitting Suburbia* – pp.172-229
- Christopher Leinberger, *DC: The WalkUP Wake-up Call*", available for download at: <http://business.gwu.edu/walkup/>
- Review the websites of the Perimeter, Gwinnett Place and Cumberland Community Improvement Districts for their role in retrofitting.
- Alex Wilson and Rachel Navarro, "Driving to Green Buildings: The Transportation Energy Intensity of Buildings", *Environmental Building News*, September 2007, online at: <http://www.buildinggreen.com/auth/article.cfm/2007/8/30/Driving-to-Green-Buildings-The-Transportation-Energy-Intensity-of-Buildings/>
- OPTIONAL: Rick Hall, "Planning for Walkable Streets," in *New Urbanism and Beyond*, Tigran Hass, ed., (Rizzoli, 2008), pp. 153-157. This book is a useful anthology and worth getting familiar with.
- OPTIONAL: Joel Garreau, *Edge City: Life on the New Frontier*, (1991)
- OPTIONAL: Cervero R., Komada Y., Krueger A., "Suburban Transformations: From Employment Centers to Mixed-Use Activity Centers," University of California Transportation Center, Working Paper, UCTC-FR-2010-13. Online at: <http://www.escholarship.org/uc/item/9h8387sz?display=all#page-1>.
- OPTIONAL: Christopher Leinberger, "The Need for Alternatives to the Nineteen Standard Real Estate Product Types," Places 17(2) and online: http://places.designobserver.com/media/pdf/Creating_Alter_806.pdf
- OPTIONAL: Chapters 13, 14, and 15 (p.245-276) in *Redevelopment Planning, Law, and Project Implementation*, ed by Brian W. Blaessner & Thomas P. Cody (2008). This book is on reserve.
- OPTIONAL: Robert Lang, Thomas Sanchez, and Jennifer LeFurgy, "Beyond Edgeless Cities: Office Geography in the New Metropolis" (National Association of Realtors, 2006), online at: <http://www.realtor.org/wps/wcm/connect/4850700048be3790b426fe0c8bc1f2ed/LangEdgelesses.pdf?MOD=AJPERES&CACHEID=4850700048be3790b426fe0c8bc1f2ed>

- OPTIONAL: Louise Mazingo, *Pastoral Capitalism: A History of Suburban Corporate Landscapes* (2011)

Feb 19

Re-inhabitation and Tactical Urbanism: Research Proposals 1

EDJ lecture on reinhabitation and tactical urbanism. Discussion of case studies and strategies for re-inhabiting, adaptive re-use, and restoration of suburban properties. Discussion of Tactical Urbanist short term actions for long-term change as well as larger movements related to relocalization and resilience. First half of short presentations of research findings.

- (O)watch the 1-hour lecture by Donovan Rypkema, "Historic Preservation as Sustainable Development" at <http://smartech.gatech.edu/handle/1853/33334>
- (O)Tactical Urbanism, vol 2. Read online at: http://issuu.com/streetplanscollaborative/docs/tactical_urbanism_vol_2_final
- Collaborative Economies/Collaborative Consumption, Investment-Ready Places, learning resilience from traditional urbanism.
- (O)Peter Elmlund and Charles C. Bohl, "Places of Ethnic Commerce Across the Transect," *Places* 18.1, 2006 and online at: http://www.designobserver.com/media/pdf/Places_of_Ethn_930.pdf
- (T) Kirk Johnson, "A Town Envisions the Future on its Own Terms," *The New York Times*, November 17, 2011. Fort Collins.
- (T) Greg Hanscom, "The next small thing: How sustainable neighborhoods could reshape cities," *Grist*, Nov 29, 2011.
- OPTIONAL: Eran Ben-Joseph, *Rethinking A Lot: The Design and Culture of Parking* (MIT Press, 2012)

Feb 26

Regreening Strategies; research proposals 2.

EDJ lecture on regreening. Discussion of climate change & resilience, reconstructed natural systems, green infrastructure, eco-system services, suburban ecology as well as district energy and waste systems. Second half of short presentations of research findings.

- (T) Laurence Aurbach, "Dense and Beautiful Stormwater Management", blogpost at Ped Shed and online at: <http://pedshed.net/?p=270>
- From Red Fields to Green Fields. View the slides explaining the idea on the homepage at: <http://www.redfieldstogreenfields.org/>.
- OPTIONAL: Peter Calthorpe, *Urbanism in the Age of Climate Change*
- OPTIONAL: Timothy Beatley, *Biophilic Cities*
- OPTIONAL: Skim through Mohsen Mostafavi and Gareth Doherty eds, *Ecological Urbanism*, (Lars Muller, 2010)
- OPTIONAL: "Green City, Clean Waters; The City of Philadelphia's Program for Combined Sewer Overflow". The pdf is available at "resources" in T-Square.

Mar 5

Retrofitting at the Metro-Scale

EDJ lecture on metro-scale retrofitting. Discussion of regional strategies, corridor retrofits and regional and statewide policy changes.

- (T,L) Galina Tachieva's *Sprawl Repair Manual*, (Island Press, 2010), "The Sprawl Repair Method" and "Repair at the Regional Scale" (pp.17-53)
- Long Island Index, "The Clock is Ticking" video online at: <http://www.longislandindex.org/The-Clock-is-Ticking.715.0.html>. Explore the Long Island Index itself – an incredibly rich greyfield audit.

- (O) Brenda Scheer, "The Anatomy of Sprawl," *Places* 14(2), 11/2001, available http://places.designobserver.com/media/pdf/The_Anatomy_of_330.pdf onlinest trees:

Mar 12

Retrofitting Atlanta: tales from the trenches.

implementation and design of past, present, and future retrofits in Atlanta: the roles of funding, CIDs, markets, coding, and transit.

- "Atlanta Retrofits" – informal list compiled by Ellen Dunham-Jones
- Rob LeBeau, "The Livable Centers Initiative," Jonathan Lerner ed., *Building Metropolitan Atlanta: Past, Present & Future* (Congress for the New Urbanism 18, 2010), pp.36-39. The article is in T-Square but it's worth perusing the book to see documentation and discussion of Atlanta's old and new neighborhoods and policies.
- Kathryn Lawlor, "Lifelong Communities," from *Building Metropolitan Atlanta*
- Bill de St Aubin, "Sustainable Regions," from *Building Metropolitan Atlanta*
- Christopher Leinberger, "The End of Sprawl," from *Building Metropolitan Atlanta*
- There are 13 CIDs (Community Improvement Districts) in Metro Atlanta, all actively engaged in redevelopment. Peruse the websites of the Midtown Alliance, Perimeter CID, Cumberland CID, and Gwinnett Village to learn more about the kinds of projects they engage in and the role they play.
- Concept 3 plan
- Sarah Kirsch, "Staying on Track in Atlanta," *Urban Land*, March 2009, pp48-58. This article is in T-Square.
- Hank Dittmar and Gloria Ohland, *The New Transit Town*, (2004), Chapter 9 "The Atlanta Case Study: Lindbergh City Center" (p.175-192) on reserve and in google books.

Mar 19

Spring Break

Mar 26

Next generation retrofits

Discussion of post-recession retrofit strategies; retrofits in areas of stagnant population growth; incremental vs instant urbanism; advanced tools and challenges; cultural acceptance of a new American Dream?; landscape urbanism/ecological urbanism; the international market for retrofitting ... where's the economy going- globalization's impact on sprawl and what's next?

- (T) Jane Jacobs, *Dark Age Ahead* (Vintage Books, 2004) Chapter 7: Unwinding Vicious Spirals
- (T) Michael Sorkin, "The End(s) of Urban Design," in *Harvard Design Magazine* Fall 2006/Winter 2007
- (T), Lance Freeman, *There Goes the 'Hood*, (Temple University Press, 2006) excerpts from the Introduction and Chapter 6: Implications for Planning and Policy
- Review each of the projects commissioned and displayed at the NYC Museum of Modern Art's exhibition "Foreclosed: Rehousing the American Dream" online at <http://www.moma.org/interactives/exhibitions/2012/foreclosed/>
- OPTIONAL: Daniel Solomon, "Making Cloth From Threads" (2009)
- OPTIONAL: Build a Better Burb Design Competition. Review the competition and the winners at <http://www.longislandindex.org/Build-a-Better-Burb.827.0.html>
- OPTIONAL; Reurbia competition. View the competition, the finalists and comments at <http://www.re-burbia.com/>
- OPTIONAL: TownShift competition. View the competition, the finalists and comments at <http://staging.townshift.com/competition/rules.php>

Apr 2 Student Research Presentations

Apr 9 Student Research Presentations

Apr 16 Student Research Presentations.

Apr 23 Architecture Final Reviews – no class

May 1 Final Paper due at noon

Research Project Performance Metric Systems

If retrofits are indeed converting less sustainable places into more sustainable places, how do we measure their impacts on the following systems? What performance metrics, based on what data sources, can be derived. Steve Coyle's *Sustainable and Resilient Communities* can be used as a resource (for all but Social Capital).

Transportation

Energy

Water

Natural Environment

Solid Waste

Economic

Social Capital

Research Project Documentation

Northgate Mall, Seattle, WA

Columbus Commons, Columbus, OH

Voorhees Town Center, NJ

Rockville Town Center, Rockville, MD