ELLEN DUNHAM-JONES AND JUNE WILLIAMSON

RETROFITTING SUBURBIA

URBAN DESIGN SOLUTIONS FOR REDESIGNING SUBURBS
Urban dwellers on average have 1/3 the carbon footprint of suburban dwellers.

imperative: climate change
imperative:

dependence on foreign oil

Research has shown that residential density and household income drive auto ownership, use, and transit use.

Center for Neighborhood Technologies, 2006
In 1999 large cities and their suburbs had nearly equal numbers of poor individuals, but by 2005 the suburban poor outnumbered their city counterparts by at least 1 million.

Alan Berube, Elizabeth Kneebone, Brookings Institution

imperative:

affordability
“Drive-'til-you-qualify” affordable housing is no longer affordable when transportation costs are figured in.

imperative: **affordability**

Yellow indicates areas where housing costs 30% or less than median income.

Yellow indicates areas where housing + transportation costs 45% or less than median income.
The big design and development project of the last 50 years: **suburbia**

*a fragmented habitat whose public realm is designed for cars*
The big design and development project of the next 50 years: **retrofitting suburbia**

integrated habitat whose public realm promotes healthy, sustainable communities
•75-85% of new households through 2025 will not have children in them (various researchers)

•77% of Millenials/Gen Y say they want to live in an urban core (RCLCO 2008 survey)

•75% of retiring boomers say they want mixed-age and mixed-use communities (RCLCO 2009 survey)

dynamic:

Demographic shift
dynamic: **leapfrogging & recentralization**

From edge cities (Garreau, 1991, above left) at highway intersections to a network of transit-served suburban retrofits in 2007. Different triggers in different cities.
dynamic:

underperforming asphalt (or, we’re not as built out as we think)

2.8 million acres of greyfields to be available for redevelopment by 2015. If ¼ were redeveloped, we could meet half our housing needs. (A. Chris Nelson, 2006)
dynamic:

synergies of a walkable mix of uses

• **25-45% reduction in external trips/traffic**
  • The average employed Atlantan drives 66 miles/day. The average employee at Atlantic Station drives 10.8 miles/day and average resident drives 8 miles/day. (EPA ‘08)

• **the health, convenience, and economy of walkable neighborhoods**
  • Every additional hour spent in traffic increases the odds of obesity 6%. (SMARTRAQ ‘06)
  • In 2005 ½ of Atlanta households made between $20-50K/year and spent 32% of their income on transportation and 29% on housing (CNT/Brookings ‘07)

• **Increased property values for walkable urbanism**
  • Homes in walkable urbanism command a 40-200% price premium (Leinberger ‘08)
strategy:

Re-inhabitation
Space for community-serving uses that cannot afford new construction

“third places”

food as a catalyst for neighborhood revitalization

keep the lights on
from grocery store to library
North Branch Public Library
Denton, Texas
Meyer, Scherer and Rockcastle Architects
strategy:

Redevelopment

Densify with transit-friendly mixed-use/income, housing choices and spaces for social interaction

Urbanize with complete streets, connected street networks and transit boulevards

Integrate green systems

Mizner Park, Boca Raton, FL; Cooper Carry, 1990

from dead mall to mixed-use downtown
from strip center to “attachable fragment of urbanism”

Mashpee Commons, Cape Cod, MA
1988-present
Cornish Assoc. Ltd
Duany Plater-Zyberk & Co
Imai, Keller Moore
building on the parking lots to form walkable streets and blocks
Connecting new and old neighborhoods to the core, across arterials
from 69 houses to TOD with 2,250 d.u. and green infrastructure

MetroWest, Vienna, VA
Pulte Homes, Lessard Arch Group, EDAW
transit triggers infill of an office park

University Town Center, Hyattsville, MD
Prince George’s Metro Center, Inc.
Parker Rodriguez
RTKL Associates
WDG Architecture
New condo and public space

New Main Street
a large farm estate adjacent to the village of Hyattsville
a mall, the office park, and buffer buildings
transit triggers infilling with new Main St, plaza and parking deck
Infilling edge city with new form-based zoning over multiple parcels

Downtown Kendall / Dadeland, Kendall, FL
Miami-Dade County Urban Design Center
Dover Kohl & Partners
Duany Plater-Zyberk & Co.
breaking up the superblocks with a street grid pegged to the mall’s internal “streets” and parks at intersecting parcel anchor points
From dead mall to green downtown

**Belmar**, Lakewood, CO

Continuum Partners
Elkus Manfredi Architects & Civitas Inc.
Van Meter Williams Pollack Architects
before - Villa Italia mall
after - corner of Teller and Alaska Streets
Another mall bites the dust..

8 of 13 regional malls in the Denver Metro area have been retrofitted or announced plans to be.

Retrofitting does NOT imply the wholesale redevelopment of existing neighborhoods.

Rather it provides existing neighborhoods with urban nodes on targeted underperforming sites—raising the question, how to connect the dots?
Virginia’s New Street Connectivity Requirement

The # of segments/# of intersections = must be greater than 1.6, or 1.4 in rural areas.
from commercial strip to multi-way boulevard and new downtown
Palm Canyon Drive, Cathedral City, CA; Freedman, Tung & Bottomley
The plan calls for buildings that enclose streets and squares along Columbia Pike.

**B. BUILDING ENVELOPE STANDARDS: MAIN STREET SITES**

**Height Specifications**

- **MAX. 5 STORIES**
- **MIN. 3 STORIES**

**Siting Specifications**

- Minimum 25 FT. deep setbacks for upper levels
- Minimum 20 FT. deep setback for upper levels
- Minimum 15 FT. deep setbacks for upper levels

*Columbia Pike*, Arlington County, VA, Ferrell Madden Associates, Dover Kohl & Partners

*Using form-based codes to induce densification and transit along a commercial strip*
**Landbanks** in shrinking cities—converting foreclosed lots to gardens, reserves, utilities to protect values, clean air and water

<table>
<thead>
<tr>
<th>NOW Maintenance Concepts</th>
<th>10-20 YEARS Ripening Amenity Options</th>
<th>LONG-TERM FUTURE Ecological Land Use Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can maintenance costs be reduced while neighborhood pride is built?</td>
<td>How can Land Bank properties be managed over a 10-20 year time frame to enhance their value, long-term property values and quality of life?</td>
<td>How might Land Bank properties be moved to their highest and best use while they contribute to quality of life?</td>
</tr>
</tbody>
</table>

**strategy:**

**Re-greening**
- restore local ecology and wetlands while increasing adjacent property values
- daylight culverted streams, clean run-off
- food and energy production

**Suburban farming** – increasing access to healthy food

**GOODBYE LAWN... HELLO SPIN FARM!**

Watch a 3 minute video of how SPIN-Farming was used to create a model urban farm in Philadelphia, PA.

Turn your garden into a significant food source with SPIN-Gardening™
from shopping center to wetland w/ new lakefront property investment
Phalen Village, Phalen MN, U. Minnesota CALA (Dowdell, Fraker, Nassauer) and City of St. Paul

Before

After
from parking lot to mixed-use TOD with condos, senior housing, daylit creek and wetlands

**Thornton Place**, Northgate, WA: LEED-ND pilot program

Mithun Architects for Stellar Holdings & Lorig Associates
Amateur photographers protesting for the right to public space on the Astroturf green at Downtown Silver Spring, MD, July 4, 2007.
HYBRID PLACES

“PUBLIC” spaces under PRIVATE management/ownership

URBAN streetscapes with SUBURBAN parking ratios

URBAN qualities at SUBURBAN costs

LOCAL placemaking with NATIONAL retail/design/funding

Populations that are MORE DIVERSE than typical suburbs, but LESS DIVERSE than typical cities

INSTANT URBANISM
INSTANT URBANISM, YES, BUT…

We can’t induce more sustainable behavior in suburbia incrementally. We NEED instant urbanism.

Uses may change and buildings can be remodeled, but retrofitting the morphological structure of streets, blocks, and lots make the long term differences in:

• reduced energy consumption and vmt/capita through densification, mixed-use, and walkability
• improved air and water quality through increased pervious surface and vegetation
• diversification of household types
• community building through the inclusion of public space

INCREMENTALISM NEEDS TO BE PLANNED AT THE SCALE OF THE METROPOLIS
LWARPS - “we can reverse sprawl”, City of the Future competition, Georgia Tech entry

1. In 100 years: transit on all major rail and road corridors
2. In 100 years: 1000’ buffers on all stream corridors
3. In 100 years: subdivisions too close to water or too far from transit won’t be viable. “Eco-Acre transfers” will allow them to transfer development rights to transit corridors and their properties to be regreened for food and energy production