Low-carbon reinvention of Suburbia; a thought experiment.

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Visions of a low carbon transition in suburbia?

• Focus on larger cities in the global north
• Not focusing on Shrinking cities
• Not focusing on rapidly growing/expanding cities (like in the global south, China...).
• densification
• Transport mode switch
• Suburbia as distopia
What is suburbia

• An American consumerist dream, imported to less affluent, more crowded and more planned/managed European cities.

• Von Thunen definition? The distance from the city where the cost of a plot of land drops lower whilst the cost of (car) transport to work is still affordable.. i.e. for the working middle class.

• Places to live comfortably (big homes, green, people like you), within driving distance to work.

For as long as man has been building cities, families wealthy enough to arrange it have sought to escape the dangers and discomforts of urban life by removing themselves to the suburbs.

As early as the 1820s, American real estate firms were advertising suburban homes for the commuter who wished to combine the advantages of life in the country with the conveniences of the city; and throughout the nineteenth century, extensive suburban settlements grew up around every American city. By the end of the period, indeed, settlements that had once marked the outer limit of the urban fringe had been passed over by newer waves of refugees, all in eager pursuit of the new and inevitably larger homes that had become accessible as a result of the steady extension of the rail and trolley lines.
TURN YOUR DREAMS INTO A Reality.

4 bedrooms, 3 baths... 2 FORDS
Suburbs feeling the pinch as fuel prices soar

Helen Chernikoff

NEW YORK, (Reuters) - Ever since the rise of the automobile in the 1950s, the American Dream has featured a home in the suburbs and two cars in the garage.

Now the iconic white picket fence comes with a hefty price tag in the form of the cost of the gasoline needed to drive to work and to the supermarket, and the suburban idyll is under review.

In different parts of the United States, there are signs of change. While home prices in the suburbs have crashed, apartments in city centers are in demand. Home builders across the country are
Nightmare scenario?
Cities; Scale, density, form, function


Chapter by Leon Krier; Growth; Maturity or Over-development?
THE CITY OF URBAN COMMUNITIES

HOMES  RELIGION
WORK  EDUCATION
ADMINISTRATION  LEISURE
SERVICES  RETAIL
POLITIC  SPORTS
HEALTH

THE ANTI-CITY OF FUNCTIONAL ZONES

RELIGION  EDUCATION
WORK  ADMINISTRATION
LEISURE  SERVICES
SPORTS  RETAIL
POLITIC  HEALTH

The City
Zoning
Mono-centric conurbation vs poly-centric federation approach to planning cities.
But suburbs exist

Costs and benefits (in Europe)

• Valuable assets; Nice homes, old trees, land!
• Long term residents; place attachment, social capital?
• Higher home maintenance costs
• Higher public maintenance costs per home/inhabitant.
• Car dependency / existence of public transport? (relative connectivity with the city centre)
Possible futures for suburbia

• Densification (city expands?)
• (partial) abandonment (city shrinks?)
• Other transitions:
  – More individual self-sufficiency, urban agriculture?
    (semi off-grid living?)
  – Village-ification; more local community &
    economy? (grow a village centre?)
  – Something different/hybrid?
Landscape trends

1. Demographics; aging population, fewer people in work
2. Rising healthcare costs
3. ICT revolution (automation, sensors, data economy)
4. Future of employment?
5. Future of migration?
6. Economic squeeze on younger generations
7. Globalisation (supply chains; capital) constrained?
8. Servicizing (beyond ownership) - more local?
9. From container economy to (local) print-on-demand?
10. Economic or policy drivers to consume less.
So what about energy?

Consump. < prod.
Consump. = prod.?
Consump. > prod.

1: Ville-centre ou intra-muros
1+2: Unité Urbaine ou ville ou agglomération urbaine
1+2+3: Aire Urbaine ou aire métropolitaine
Policies to decarbonise the sub-urbs

Standard stuff includes:
• Subsidies for low carbon tech
• Higher taxes for high carbon tech
• Planning policies focused on public transport.

But what about:
• Taxes on under-occupied buildings?
• Extra taxes on poorly insulated homes (+ loans to fix things?)
• Enable/encourage multiple uses of homes, gardens
• Work-place policies – e.g. to reduce commuting.
Effects of policy: suburbia varies from country to country

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Note: MFDs = Multi-family detached.
Impacts of changes in private transport; AV

Impacts of the sharing /collaborative economy & ‘servicizing’

• Switch to ESCOs (‘pay by thermostat’)
• More productive use of over-sized private property (spare rooms, garages, drive ways, spare seats in car, under-used appliances).
• Stuff you don’t already own; buy service only.
• Towards hybrid forms of ownership; old owner + improver + marketer/service provider.
• Match-making; information, nudging, facilitation, consultation (on ‘how’) - role for trusted 3rd party (local, accountable, not for profit?)
Changing the processes of change

• Changing expectations (longer term, focus on big decisions rather than on voluntary daily behaviour).
• Learning by doing; reward risk-taking (pay for learning?), cudos & benefits for early adopters.
• Multiple transition pathways; aligned to life phases, responsive to exogenous factors.
• Secure transitions through lock-in (to reduce the risk of fall-back), e.g. through contracts (services, insurance, finance, taxation)
In summary

• To reduce domestic carbon emissions; utilise spatial footprint to become net zero prosumers.
• To reduce commuting & car dependency; changes to culture, planning and policy.
• Encourage/support collaborative & sharing economy
My suburban diary in 2025?

• Monday; community service
• Tuesday; work from home
• Wednesday; travel to city to meet new clients and have lunch with work colleagues
• Thursday; work from neighbourhood office
• Friday; training & education (chez neighbour?)