

Retrofitting Suburbia: A Pedagogical Perspective

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Suburbia as we have known it for the past century—and especially since World War II—is changing. During the closing decades of the twentieth century, a new type of dispersed city superseded the old city-suburb dichotomy; jobs, housing, cultural institutions, commerce, industry, and many other urban functions were redistributed throughout the urban peripheral landscape. Densified nodes, however, are emerging in the sprawling soup, some as relatively unplanned and disorganized conglomerations—Joel Garreau’s edge cities—and others as more walkable, mixed-use town centers. Many built-out suburban places are experiencing dramatic, deeply transformative change via the redevelopment of large sites of 40 or more acres (dead malls, moribund strips centers, aged garden apartment complexes, downgraded office parks, acres of “underperforming asphalt” and the like). Some decry these suburban retrofits as “instant cities,” but they hold great promise for redirecting new development—the great mass of commercial buildings and mass market housing that many architects choose to ignore or disdain—away from peripheral greenfield sites and into emergent urban nodes with an “attachable” urban structure to promote future connectivity. The stakes in this transformation are high. As Ellen Dunham-Jones asks, “Can a concerted program of suburban retrofits promote regional sustainability? Will it be possible to accommodate our burgeoning population in ways that both stimulate suburban life and preserve unbuilt land from development? Can the insertion of densified nodes into existing suburbs make transit feasible and trigger the retrofitting of sprawl itself?”¹ The answer, I think, is a tentative “yes” and urban design will play a valuable role in making this so.

After reviewing the arguments for retrofitting suburbia, I discuss a series of case studies and a

methodology used to assess to degree to which the retrofits studied have transformed the underlying suburban morphology. I then introduce some implications of this research for urban design pedagogy as a way to empower students to engage with the tremendous opportunities to “re-form” suburbia.

THE CHALLENGES AND OPPORTUNITIES FOR RETROFITTING SUBURBAN FORM

The process of retrofitting the sprawling, low-density patterns of suburban form into polycentric urbanism is ongoing. In the book *Retrofitting Suburbia*, Dunham-Jones and I have termed the mechanism of change through retrofitting “incremental metropolitanism,” characterized by the rapid construction of large developments that taken together promise to substantially transform the underlying overall land use patterns by upending the piecemeal logic of conventional development.² How do we evaluate the success, in urban design terms, of the suburban retrofits that have been built or are in progress? And how do we educate students to engage effectively and knowledgeably with the problem of retrofitting postwar suburban form?

For the first question, we may look to urban morphology, more specifically the recent research in describing and classifying the workings of suburban, versus urban, morphology. For the second, we should increase students’ historical awareness about the formation and diversity of the suburban landscape, which too often is treated a-historically or as a foil to urban history.

In the conclusion of his seminal 1987 book *Bourgeois Utopias*, historian Robert Fishman observed, “Suburbia was at once the most characteristic product of explosive urban expansion and a desperate protest against it.”³ This observation

of the intertwined nature of suburbs and cities was a crucial corrective to the usual descriptions and critiques of suburbia up to that point, which had tended to consider it in a vacuum, and had emphasized the white affluent and middle-class bedroom suburb, reified by television sitcoms and movies, over all others. Suburbia was not viewed as a historical construct that changes over time. Kevin Kruse and Thomas Sugrue, editors of the anthology *The New Suburban History*, set out to “challenge an older scholarship that looks at the history of suburbs largely internally and, instead, examine the ideological, political, and economic issues that bound city and suburb together in the postwar world.”⁴ Essays in the book pay special attention to the lesser-known histories of blue-collar, African American, Latino, and Asian suburbanites and consider how contentious political debates over such issues as taxation, school busing, and immigration have played out in suburban contexts. It is hardly coincidental that suburbia’s history is being revised at the same time that its physical fabric is getting retrofitted.

Why might this matter? By 2050, the U.S. population will increase by half again what it was in 2000, to around 420 million. With some exceptions, the new immigrants who make up a large part of population growth are now far more likely to bypass gentrifying cities and head directly to suburban areas, especially those in the aging first ring where housing is more affordable and low-wage jobs more available.⁵ This first frontier for implementing suburban retrofitting strategies, the ring of so-called “first suburbs,” is where demographics have changed most dramatically and new investment is sorely needed to improve the quality of life.⁶ Since 1980 the foreign-born population in first suburbs grew by 262%, faster than in their central cities and faster than the national rate. The two counties that rank first and second in terms of nonwhite residents are Miami-Dade County, Florida (77.6%), and Prince George’s County, Maryland (75.7%). Two of the primary case study examples in this paper, Downtown Kendall at Dadeland and University Town Center, are located, respectively, in these two counties. Single households made up predominantly of the elderly and echo boomers (the children of baby boomers, born between 1979 and 1994) are also expected to contribute significantly to future housing demand—not just in cities, but also in suburbs where they have contributed to a

surge of interest in new condominiums. Marketers emphasize that this civic-minded, lifestyle-centered, and 24/7 peer-connected generation has different expectations than their parents’ generation.

These demographic trends support the demand for urban nodes in suburban areas. But it is a difficult assessment to determine how well suburban retrofits live up to their urban aspirations. It is easy to compare them to “real” cities and find them lacking. But this misses the point. Instant cities and suburban retrofits are not core cities. They are urban nodes within a new polycentric metropolis that simultaneously compliment the core city’s downtown and serve a predominantly suburban population. They are hybrids and reflect aspects of both centeredness and decentralization.⁷

The challenge for architecture and urban design academics is to train a new generation in the tools and strategies of suburban retrofitting in a way that recognizes and navigates this hybridity. We must overcome academic disdain for New Urbanism, which has been battling in the trenches for some time now, without enough serious alternative practitioners willing and able to open up new fronts.⁸ Committed new urbanists have developed a bevy of important tools for confronting and remodeling conventional development patterns. The retrofitting strategies that are being employed in built-out suburbs include: increasing connectivity and walkability across and between parcels; designing around figured public spaces; including a mix of uses, lot sizes and building types; and adding density, especially to overparked sites.⁹ Students must be empowered to comprehend and engage with the imperative to redesign policy, codes, zoning, traffic and transit regulations, parking ratios, financing mechanisms, etc. Who knows what tools and methods they might help develop?

CASE STUDY METHODOLOGY

Case studies are a mainstay of urban design, real estate, and planning literature. In many examples, however, case study methods include little formal analysis. The typical format consists of a project description accompanied by development data and lessons learned, illustrated with photographs and master plans provided by a project’s designers or developers, reflecting their point of view. It is a challenge to go beyond the readily available source materials,

as provided by developers and municipalities, and to read past their ready-made narratives about the redevelopment goals, process and results.

The case study methodology described here is designed to relate the history of each site and the actors and factors responsible for the retrofitting process, following conventional case study methodology, but also to examine the underlying morphological structure, or physical form, of each site and the manner in which the morphology has contributed to or impeded the effort to retrofit the underlying patterns that condition and reproduce sprawl and inhibit smart growth. To do this, the lots, streets, and buildings of each site have been diagrammed at three points in time, spaced 20 to 40 years apart (depending on the specific development trajectory of each site). A comparison of these patterns yields insights about how the patterns are determined by pre-development conditions,

making them somewhat resistant to change, and how they have, nevertheless, been altered through retrofitting.

Each case study analysis also addresses the demographic context for the retrofit and speculates on the future impact of the retrofit toward furthering the goal of accommodating anticipated future growth within already developed but low-density suburban areas. In each example, an attempt is made to demonstrate, through morphological analysis, the ways in which the underlying urban structure—the subdivision of lots, blocks and streets and the massing of buildings upon them—has been transformed and the ways in which it has resisted transformation. It is this underlying urban structure, not the current building uses and densities (which are more easily changed), that constitutes the suburban retrofitting task.



Figure 1: Mashpee Commons and surrounds in 1985, 2005, and projected conditions in 2025.



Figure 2: Belmar and surrounds in 1975, 1995, and projected conditions in 2015.

Brenda Case Scheer has theorized that suburban growth develops in patterns that are strongly conditioned by the pre-urban fabric, such as farm roads and fields. She has proposed three categories of suburban tissue (patterns of block, lot and building aggregations): *static tissues*, or planned subdivisions; *campus tissues*, comprised of multiple buildings on a single large lot, such as apartment complexes, office parks and shopping malls; and *elastic tissues*, the most transformable type, found on arterial strips where lots are varied in size and irregular in shape, and buildings are of different types and sizes and differ widely in age.¹⁰

Mashpee Commons: Project or Town Center?

Mashpee Commons, begun in 1986, is the oldest retrofitting project analyzed. The retrofit, begun as remodeling and additions to a 1960s strip shopping center, has been incrementally added to over the years with more retail as well as a public library and post office. It is now permitted for major expansion with compact residential neighborhoods surrounding the by now well-established commercial core.

The master plan for Mashpee Commons, credited to new urbanists Duany Plater-Zyberk and Company and others, has undergone numerous revisions over the years, although its main components and organizational strategy—a walkable new downtown interconnected to a series of new residential neighborhoods organized around a framework of open spaces—has remained relatively constant.¹¹

The morphological figure-form diagrams demonstrate the incremental changes that have occurred at Mashpee Commons (see fig. 1). A comparison of these diagrams to the most current master plan provided by the developer shows how the master plan, as is typical, highlights the project boundaries. It proved difficult to obtain data from the developer or other sources about the exact location and configuration of the strip center that was remodeled. In correspondence, the lead developer expressed bafflement at the technique of including lots lines in the morphological diagrams. He requested instead for the land acquired for new additional development to be represented as blank.¹²

The conflict between representation of the “project” within its context (not distinguished graphically from its context) and the conventional rep-

resentation of a “project” that begins with a delineation of boundaries or property lines is a key challenge in case studies. The developer’s claim for success is predicated on the recognition that local residents no longer identify the place as a developer-owned shopping center, but instead claim it as the public town center of Mashpee (which lacks a distinct historical town center), as in saying, “let’s go downtown,” rather than “let’s go to Mashpee Commons.”¹³ The morphological diagrams support the claim that redevelopment at Mashpee Commons has been incremental, responsive both to the market and to local conditions, such as pre-existing Native American trails, whose contours were embedded in the lot subdivision pattern. But it also remains an identifiably separate entity, as evidenced by the morphological diagrams and the developer’s own claims for representing the project as autonomous.

Belmar: Subdivision into Blocks and New Public Streets

The developers of Belmar, the retrofit of a 104-acre mall site in Lakewood, Colorado, may be savvier than those of Mashpee Commons on the issue of conceding to the public a claim on the new “downtown” that they are developing. Of course, they are benefiting from the tough pioneering work done at Mashpee Commons and other places to confront the anti-urban standards of resistant local officials—zoning, department of transportation, and fire marshals—who wield tremendous power in suburban municipalities. Examples of the kinds of standards requiring review and revision are overly deep setbacks, wide street widths and large minimum lot sizes. The mayor and other Lakewood officials were partners in the redevelopment, inviting Continuum Partners to purchase the site, providing funding through a sales tax subsidy, and coordinating on many key decisions.¹⁴

At Belmar, the large site was legally broken up into 22 separate blocks and publicly owned streets and squares. The developer has voluntarily ceded a significant percentage of the overall land area into public ownership, which will restrict the ways in which the “campus” site could be subdivided in the future. But this is precisely the point of the urban retrofitting strategy employed at Belmar. Future potential is sacrificed to the expectation that a stable, urban subdivision plan with through streets, blocks

and parks, optimally sized for a range of building types (including mid-block parking structures) will vastly enhance the value of the land by increasing its long-term potential for a range of profitable uses. The goal is to use the urban form to lessen the likelihood that the site will succumb to use obsolescence, as happened with the 1.3 million square foot regional mall, called Villa Italia, that was there before. As an additional benefit, the citizens of Lakewood may now enjoy new public squares and parks for the celebration of civic events like parades.

The morphological diagrams illustrate the transformation from mall to downtown. Only one building on the assembled mall property, a 1980s vintage anchor store, survived into the new era, spared because its location meshed with the block structure formed from extending existing streets on neighboring blocks through the Belmar parcel (see fig. 2).

Also apparent from the morphological diagrams is the persistent effects on the landscape of the quarter-section (160 acre) divisions of the historic Public Land Survey System. The dominance of the arterial roads, tracing the boundaries of the 160-acre increment, is nearly impossible to diminish, presenting Belmar with one of its greatest challenges: how to address the busy intersection at Wadsworth and Alameda Boulevards. The “inside out” redevelopment strategy at Belmar defers this challenge to a later phase. The developer-provided master plan focuses on the project only, with minimal indications of the adjacent urban fabric.

University Town Center: Buffers and Barriers Remain

University Town Center is an example where obtaining access to the developer and key designers was more difficult. Design attribution tended to shift, depending on viewpoint. It was possible, however, to piece together an accurate picture of the players and sequence of events.¹⁵

At University Town Center a small office park consisting of three 1960s office buildings by Edward Durell Stone, leased mainly to government agencies, was retrofitted with new infill development on the parking lots: student apartments, high-end condos, retail and a public plaza over structured parking. The same developer (Herschel Blumberg)

has owned the property throughout and indeed intended a high-density mixed-use development from the start, but was unable, until now, to achieve that goal. What changed? Primarily, the completion of an adjacent D.C. Metrorail line and stop, and a new transit-oriented overlay zone. Also, the increased willingness of national retailers to locate in Prince George’s County, which has been overlooked because the population, while generally affluent, is majority African-American; as previously noted, three-quarters of the residents of Prince George’s County are nonwhite.¹⁶

Morphological analysis clearly shows how the large campus-like elements in the area—the mall, apartment towers and the office park—were built on an even larger farm estate while the adjacent village of Hyattsville was already platted and built out by 1940. A series of “buffers”—churches, a public library, a community center—were built on land donated by the developer in the 1960s to separate his planned mixed-use center (eventually limited to just the three office buildings) from the single-family house neighborhoods. Today these buffer buildings, highly suburban in form (stand alone buildings with individual parking lots) remain a major impediment to extending the street network effectively through the retrofitted site. Instead, the new “streets” remain just internal ways, although they are a big improvement (see fig. 3).

Other challenges to connectivity, highlighted in the diagrams, is the barrier of East-West highway, which must be crossed to reach the metro station, and the mall to the west, which is only minimally linked. Much more so than the other examples, University Town Center remains a relatively isolated “campus” project, albeit a more dense and diverse one.

Downtown Kendall/Dadeland: Coercive Form-based Zoning

The case study for Downtown Kendall (also called Dadeland) presented challenges. Unlike the others, Downtown Kendall is not the work of a single developer but is instead a study of the impact on redevelopment initiatives triggered by a zoning overlay designed to encourage higher densities but also to require subdivision of the land into smaller blocks, with new through streets (defined as rights-of-way) and shared open space that would add up to more than the sum of its parts.



Figure 3: University Town Center and surrounds in 1940, 1980, and projected conditions in 2020.



Figure 4: Downtown Kendall/Dadeland and surrounds in 1970, 1995, and projected conditions in 2020.

The rezoning has been successful in encouraging new high-density redevelopment of lots that had been used for parking, car dealerships and low-rise apartments into a high-density transit-served node, as called for in the Miami-Dade County Comprehensive Plan. The high-end shopping mall at the center of the district has not changed; it seems unlikely to decline in the near future, with a steady clientele of big-spending South American shoppers. Many of them now own condos in adjacent buildings (see fig. 4).

The challenge in compiling the morphological figure-field diagrams was in assembling together numerous site plans for individual projects that had been submitted to the Miami-Dade County planning department for approval under the new zoning.¹⁷ Comparison of panoramic photos of current built-out conditions to the illustrative plan and axo-

nometric drawings produced by Duany Plater-Zyberk and Company and Dover Kohl & Partners, consultants for the overlay zoning, a prototype for the form-based zoning strategy that both firms now advocate, yield a huge difference.¹⁸ The traditional clay-tile roofs and mid-rise courtyard buildings in the illustrations are in scant evidence in the actual build-out, which is dominated by new, much glitzier high-rise towers.

But at the level of urban morphology, the new developments exhibit a high degree of conformance to the urban design goals of introducing new streets, breaking up superblocks, and encouraging adjacent lot owners to congregate required open space elements into larger shared squares by using anchor points. The configuration of the squares may be clumsier than was desired, and the required shade arcades may be less than graceful in the transi-

MORPHOLOGY PLAN – “BEFORE”



MORPHOLOGY PLAN – “AFTER”

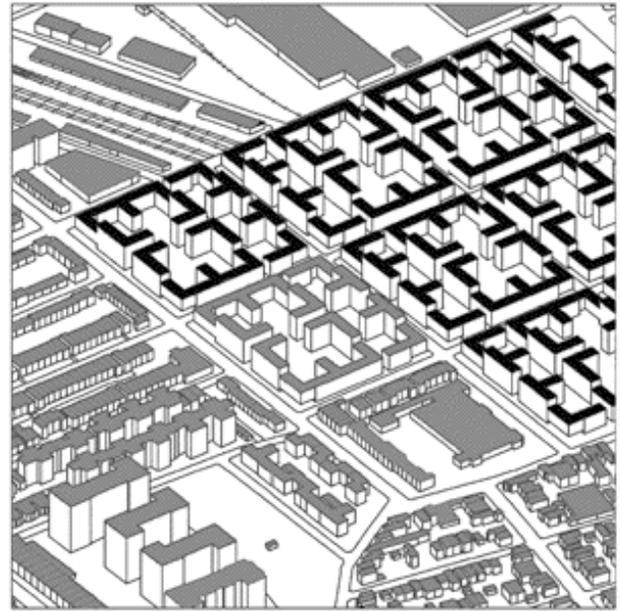


Figure 5: Suburban retrofits by City College of New York students of Palisades Center in Nyack, New York (top) and the Phipps Garden Apartments in Queens, New York (bottom).

tion from block to block, but the unconventional rezoning has encouraged the County to implement similar overlays elsewhere.

PEDAGOGICAL APPLICATIONS

The case study analysis methodology outlined above yields promising results for assessing urban

form in suburban retrofitting projects. A key marker in assessing retrofitting success is the degree to which the redevelopment approach transforms the underlying urban patterns of lots, blocks and streets from suburban to urban configurations. These prior configurations are generally highly resistant to adaptation; in contrast, urban configurations hold out the possibility for a more sustainable long term inhabitation of the land because they exhibit more capacity for densification, change of use, the introduction of new building forms and idioms, and, not least, the support of truly public space.

The insights gained from this methodology of integrating urban morphological diagramming and analysis into detailed case studies was applied in an assignment in a graduate level urban design seminar on the history of urban form in the twentieth century, with an emphasis on suburbanization. Working in groups, students were asked to document and analyze a quarter-square mile fragment of suburban form characterized by use-segregation in the New York metropolitan area. They were then asked to propose a strategy or set of tactical maneuvers for retrofitting or systemically transforming that condition, as they understood its formation and structuring logic, into something new. Basically, they were asked to imagine changing the rules of the game, and then to visualize the potential results.

The sites the students chose included a strip center on Central Avenue in Yonkers, New York, a residential section of Teaneck, New Jersey, the Palisades Center mall in Nyack, New York, an office park in White Plains, New York and, in a bit of a departure, the Phipps Garden Apartments, an exemplary 1930s garden apartment prototype in Queens designed by Clarence Stein.

The results of the short exercise were instructive (see fig. 5). During the course of the seminar the students had become well versed in the histories of suburbia, and the interdependence of American cities and their diverse suburbs in the 20th century. But it was through this assignment that they were best able to comprehend their responsibilities and the opportunities available to them as urban designers to effect change in these types of places. The Phipps Garden Apartments was treated as a prototype and was opened up, extended, and repeated across railroad tracks and an adjacent industrial

area. The Palisades Center was demolished and the land reclaimed as wetlands, with new mixed-use development on the non-flood prone edges of the site. The Teaneck neighborhood was perforated with multiple new pedestrian networks, cutting through yards and creating back alleys. At the White Plains corporate campus all of the parking lots were built on with new housing. While none of the students' projects were examples of great urban design, each clearly demonstrated ways in which the introduction of new logics, applied comprehensively, can significantly transform the morphology of a district. This alone is a significant lesson.

ENDNOTES

1. Ellen Dunham-Jones, "Suburban Retrofits, Demographics, and Sustainability," *Places* 17:2 (Summer 2005): 8.
2. Ellen Dunham-Jones and June Williamson, *Retrofitting Suburbia: Urban Design Solutions for Redeveloping Suburbs* (New York: John Wiley & Sons, 2009), 9-12. See also Dunham-Jones and Williamson, "Retrofitting Suburbs: Instant Cities, Instant Architecture, and Incremental Metropolitanism," *Harvard Design Magazine* 28 (Spring/Summer 2008), online edition.
3. Robert Fishman, *Bourgeois Utopias* (New York: Basic Books, 1987), 206.
4. Kevin M. Kruse and Thomas J. Sugrue, ed., *The New Suburban History* (Chicago: University of Chicago Press, 2006), 6.
5. William H. Frey, "Metropolitan America in the New Century: Metropolitan and Central City Demographic Shifts since 2000" (Washington, DC: Brookings Institution, 2005).
6. Data compiled by the Metropolitan Policy Program at the Brookings Institution identify sixty-four aging suburban counties caught in a policy "blind spot" at the federal and state levels. These first suburbs, concentrated in the Midwest and Northeast, account for almost one-fifth of the nation's population but have been underserved in recent decades while funding and policy directives have been focused on center cities and new suburban growth areas. See Robert Puentes, "The Evolution and Current State of First Suburbs: An Agenda for Action," paper presented at the Center for Suburban Studies, Hofstra University, March 18, 2005, http://www.brook.edu/metro/speeches/20050318_firstsuburbs.pdf.
7. Dunham-Jones and Williamson, *Retrofitting Suburbia*, 12-14.
8. Some exceptions are Paul Lukez, *Suburban Transformations* (New York: Princeton Architectural Press, 2007) and the work of Estudio Teddy Cruz.
9. Dunham-Jones, "Suburban Retrofits, Demographics, and Sustainability."

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10. Brenda Case Scheer, "The Anatomy of Sprawl," *Places* 14:2 (Fall 2001): 28-37.
 11. For details of the first Mashpee Commons charrette scheme see Peter Katz, *The New Urbanism: Toward an Architecture of Community* (New York: McGraw Hill, 1994), 168-177.
 12. Cornish Associates' Douglas Storrs, email correspondence with author, January 30, 2008.
 13. Described in Charles C. Bohl, *Place Making: Developing Town Centers, Main Streets, and Urban Villages* (Washington, DC: The Urban Land Institute, 2002), 164-168.
 14. Lakewood City Manager Mike Rock, interview by author, Lakewood, Colorado, August 7, 2007; Continuum Partners Chief Development Officer Tom Gougeon, interview by author, Lakewood, Colorado, August 8, 2007.
 15. Owner Herschel Blumberg, interview by author, Hyattsville, Maryland, February 27, 2006; planner Jay Parker, telephone conversation with author, November 12, 2006; Douglas Fruehling, "Back to the Future," *On Site*, Summer 2007, 24.
 16. In income, Prince George's County was ranked 120th out of over 3,000 counties in the nation in the 2000 U.S. Census.
 17. Graciously provided by Gilbert DeBlanco, Miami-Dade County planner, November and December 2006.
 18. See original illustrations in Victor Dover, "The Revitalization of Main Street: Kendall, Florida," in *The Seaside Debates: A Critique of the New Urbanism* (New York: Rizzoli, 2002), 59-66.