

# Putting Greenways First

Creating healthy and  
connected communities  
by blending urban and  
conservation design.

By Randall Arendt

**A**fter four decades of reflecting on what makes communities great places to live, work, and recreate, I always come back to the basic idea of planning greenway networks. To me, that seems to be the most fundamental element of enlightened town planning, whether in rural, suburban, or urban locations.

Serendipitously, greenways also provide a useful bridge between two of the last century's most compelling design innovations: "new" urbanism and conservation design, both of which built upon earlier traditions. Simply put, greenways and the parklands they connect with neighborhoods, schools, and mixed use centers provide the unifying element that allows urban and rural values to merge, producing a superior hybrid community form.

Elements of rurality can—and must—be part of any truly livable urban design, as Olm-



Harbor Town, a neighborhood in Memphis, Tennessee, features extensive greenways along the Wolf and Mississippi rivers.

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sted and Vaux's plan for Manhattan's Central Park demonstrates, and as is further proven by the Olmsted firm's 1,100-acre "Emerald Necklace" around Boston, connecting the Boston Common with 525-acre Franklin Park.

Without natural or manmade corridors that are reserved, shaped, and enhanced to facilitate walking, jogging, skating, and cycling, residents and workers will always lack an essential component of truly civilized community design, including safe routes to school. Numerous studies have proven that investments in landscaping, green space, and trails pay handsome dividends to the developers and municipalities with the vision and confidence to embrace them.

The social benefits of greenway provisions are perhaps less well documented, but are nonetheless real and discernable. Footpaths and trails are likely places for people to meet and greet neighbors or to make new acquaintances, particularly if they walk dogs regularly. Simply put, if planners create attractive places for people to stroll or congregate, people will be naturally attracted to them, and in gravitating to these green magnets they will experience chance encounters that would never

An alternative to the cul-de-sac, a close consists of two lanes separated by a green area. In this example at Browns Farm in Kingston, Rhode Island, the central area acts as a rain garden.



Randall Avenue

Grand Junction, Colorado



City of Grand Junction

Baldwin Park, Florida



Randall Avenue

Westwood Common, Beverly Hills, Michigan



Randall Avenue

## More options

### Closes.

One very positive alternative to the typical cul-de-sac is the "close," consisting of two lanes separated by a green area, rather than by a painted white line. In these one-way loops, turning radii are equal to or greater than that normally provided in cul-de-sacs.

The land within the street loop can be planted with grass and shade trees, providing a convenient play area for children, as in Grand Junction, Colorado.

When the central island is slightly lower than the surrounding lanes, and when the pavement slopes inwardly toward the center, such small parks can serve as rain gardens when planted with shrubs and trees thriving on additional moisture.

### Visually Prominent Green Space.

Green space visibility can be increased by positioning neighborhood parks as terminal vistas at the ends of streets or along the outside edge of a curving street. It can also be increased through the use of long linear parks, such as the greenway path (above) at Baldwin Park, near Orlando, which runs for more than three miles around Lake Baldwin and through Blue Jacket Park.

### Attached Greens.

The innovative concept of homes fronting directly onto green space is illustrated by Westwood Common in Beverly Hills, Michigan. With alley-loaded garages, homes enjoy an immediate relationship with the open space directly in front of them, enhancing livability, community connections, and marketability. Local fire officials say they can reach houses better than in conventional subdivisions, because the design allows access to the homes from both front and back. Even attached or multifamily units can be positioned facing the neighborhood green, separated by only a sidewalk, as at Weatherstone in West Vincent, Pennsylvania.



have occurred if they had continued sitting in front of televisions or computer screens.

The health benefits of active recreational facilities in traditional and linear parks are beyond dispute, as they combine both physical exercise and the mental benefits of interacting with nature. Combining conservation design with new urbanism to form a greenway planning hybrid offers a compelling alternative, one that could help improve troubling national statistics. Notably, according to a 2011 report from Peter Harnik and the Trust for Public Land, 49 percent of Americans get less than the minimum required amount of physical activity, and 36 percent of U.S. adults engage in no leisure-time activity at all.

## Promoting wellness

I believe in densifying development patterns above the levels that most communities set as their maximums, but only in exchange for creating first-rate community spaces, the epitome of which are bike-friendly, multiuse greenways linking neighborhoods and connecting nodes such as mixed use centers, schools, and parks. My wife and I regularly enjoy a three-mile walk along paved and unpaved trails linking a cluster of retail uses



More than 80 years after its designers' bold experiment with greenways, Radburn residents continue to walk to transit, shops, offices, schools, and parks.

Conover Commons, Redmond, Washington



Narbrook Park, Narberth, Pennsylvania



Belgravia Court, Louisville, Kentucky



## Internal Greens and Bungalow Courts.

Many designers know that designing the spaces between buildings can be equally as important as the buildings themselves, particularly when they create "outdoor rooms." An extremely livable neighborhood form is the "bungalow court," built in many West Coast cities between 1910 and 1930, with cottages grouped around a common green or garden courtyard, and garages on the perimeter, Radburn-style.

## Neighborhood Greens.

In addition to a long central green through which a small stream flows, Narbrook Park, in Narberth, Pennsylvania, includes two small crescents branching off from the main loop. This neighborhood is so popular that informal waiting lists exist for homes.

## Greenway Streets.

In a traditional grid system, occasional cross-streets can be eliminated, closed to traffic, and designed as linear greenway parks by accessing garages from the rear and substituting grass and shade trees for asphalt pavement and concrete curbing in front. Dual sidewalks bordering central greens provide the best results.

Fire engines serve the homes from behind, via the alleys, and from the collector streets at each end of the short greenway street. Homes in the middle of such blocks are typically no more than 120 feet from either corner (where visitors park their cars). The photo of a historic example from Belgravia Court in Louisville, Kentucky (one of a half-dozen in that city), reminds us that very little is new under the sun.



at the edge of Wakefield Village (in South Kingstown, Rhode Island) with a new mixed use center along Route 1. The trails take us past a pond, dog park, recreational fields, senior center, and middle school.

Our community is also linked to a seven-mile bicycle path that connects schools, transit, natural areas, and several distinct communities. It is regularly used by bicyclists, in-line skaters, joggers, walkers, and cross-country skiers, many of whom might not exercise regularly were it not for the presence of this pleasant and convenient multiuse trail.

Numerous studies document the health benefits of greenway trails, including a corporate wellness study in San Jose, California, which found that medical insurance claims are 14 percent lower among people who exercise regularly, and that 41 percent fewer claims over \$5,000 are filed by that group. Even mild exercise such as walking can improve health and lower medical costs: *Men's Fitness* magazine has reported that for every mile a person walks, society will save 24 cents on medical and associated costs.

Many learned articles have examined the question of whether low-density suburban sprawl causes obesity. Some researchers have argued that higher density development improves public health, while others, such as the authors of *Fat City: Questioning the Relationship between Urban Sprawl and Obesity*, doubt the science of those studies.

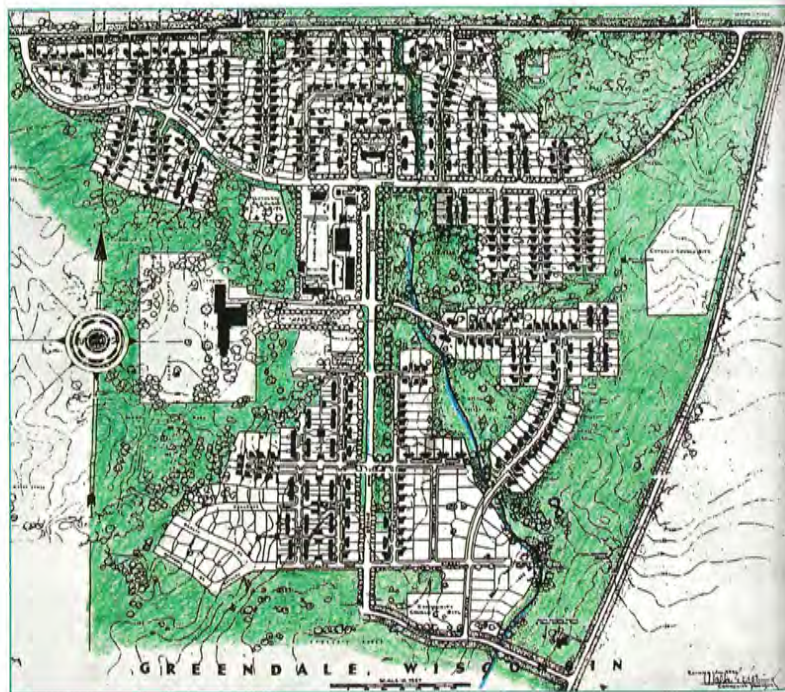
According to Reid Ewing, coauthor of multiple peer-reviewed articles on this subject, development patterns play a role but "sprawl is a secondary factor," after diet and exercise. "It might be that certain thresholds or critical levels of 'compactness' are needed before community design begins to have a palpable influence on physical activity—increasing density from one or two houses per acre to three or four might not meet the threshold needed for change."

Whether or not significantly denser development patterns (which I support, for many sounder reasons in most non-rural contexts) would help alleviate our national health crisis, it is indisputable that the two main reasons for our expanding waistlines are overeating and insufficient physical activity. Not surprisingly, wiser food choices and regular exercise are the two principal prescriptions offered by health professionals in Western Europe, where obesity is becoming increasingly common despite the absence of sprawl.

While planners continue to push for more compact development patterns for a variety

The master planned communities of Wyomissing, Harbor Town, and Greendale all successfully blend conservationism and urbanism.

An irregular linear park runs through Wyomissing—which is outside Reading, Pennsylvania—offering a change of pace from its urban grid. Memphis's Harbor Town also features a long crescent park, substantial river greenways, and a traditional street pattern with alleys. And in Greendale, Wisconsin, which dates from the 1930s, trails and paths connect residents to shops and schools.





of worthy reasons, greenways and multiuse trails provide a supplementary approach that we can simultaneously embrace to improve public health, as we strive toward denser development and increased public transit.

Several communities deliver the best of what new urbanism and conservation design have to offer, resulting in a sort of hybrid of the two. In all of these, greenways figure prominently.

One of the very first master planned communities incorporating traditional urban principles such as blocks and alleys, Memphis's Harbor Town exemplifies a blended design approach featuring extensive greenways along both the Wolf and Mississippi rivers, and through its center in a long crescent park. Because of its attention to the venerable concept of linear parks, as promoted by the Olmsted firm generations earlier but often overlooked by many new urban designers, Harbor Town, begun in 1987, can teach future designers many valuable lessons.

How much the Harbor Town planners drew from historic precedents is unknown, but another instructive example from the past is Wyomissing, a master planned company town adjacent to Reading, Pennsylvania, that dates from the late 1890s. Its traditional street-and-block plan, encompassing a proper downtown, a variety of neighborhoods, and a full complement of civic and institutional uses, is crossed by two intersecting boulevards with roundabouts. This typical urban form is pleasantly relieved by a linear central park that varies in width while maintaining generous proportions along most of its length.

Demonstrating that the grid can sometimes be expanded to create exceptionally fine interior parks within modestly sized "superblocks" of about 50 acres (not large enough to hamper collector street connectivity), Radburn, in Fairlawn, New Jersey, introduced perhaps the boldest community design idea of the 20th century. It was designed by landscape architects Clarence Stein and Henry Wright in 1927, largely to create a community where children could wander and play without having to cross busy streets. Today, Radburn residents, young and old, still can walk or bike to the train station (with service to Manhattan), shops, offices, and a central elementary school.

Replete with alleys, housing choices, mixed uses, transit options, and walkability, Radburn exhibits many of the recognizable hallmarks of today's new urban communities, except that most homes face greenway paths

rather than streets, and the alleys are cul-de-sacs. Deliberately eschewing a fine mesh of through-streets and truncating the alleys has enabled Radburn to provide two enormously attractive and popular linear parks, while also providing unhindered vehicular circulation along boulevards spaced at 1,000-foot intervals.

An early hybrid of the Radburn layout and the traditional grid can be seen at Greendale, Wisconsin, one of four New Deal communities, also designed by landscape architects, in 1936. This model might be more popular with today's developers because of the street orientation of its homes, and it could resonate with some transportation planners because it does not employ superblocks. Nevertheless, every home is just a short walk from the extensive network of greenway trails and bike paths, linking homes with town center shops and neighborhood schools.

Growing up in such communities can have far-reaching effects: Greendale is the home town of one of the country's leading greenway advocates, Chuck Flink, whose firm Greenways Inc. has produced more municipal and regional greenway plans than any other consultancy.

The mid-1960s saw the development of a number of large master planned communities, the best known of which were Reston and Columbia near Washington, D.C., The Woodlands near Houston, and Jonathan near Minneapolis. In each case, the first step taken by the designers (usually landscape architecture and planning firms) was to identify the underlying greenway network and to plan development around it.

Although their street layouts are quite dated from today's perspective, these communities have functioned very well from a greenway viewpoint, providing easy and well-used pedestrian and bicycle connections between the neighborhoods and town centers. Some, such as Columbia, have attained a favorable balance of homes and jobs, with roughly 40 percent of residents working within the new

town, reducing long-distance commuting.


## Green comes first

One planning lesson to be drawn from these highly livable examples is that the best community design begins by identifying the green infrastructure first, and carefully interweaving a more modern grid-like street network into the greenway fabric to achieve the best of both worlds. This approach has occasionally been taken by new urban design firms when the topography absolutely requires it, as at Haymount, but rarely when environmental constraints are less severe, the outstanding exception being Harbor Town.

In my view, however, even parcels that are flat, open, and dry (as Radburn originally was) deserve to be designed with a proper, full-fledged greenway network, one that is determined at the front end of the planning process and that shapes the subsequent urban form.

The degree of respect shown by new urban designers toward natural assets and environmental features varies greatly, but might be gradually improving. One solution to this problem would be to co-captain each charrette team with an architect and a landscape architect plus a planner trained in design.

When I served in the latter role in western Tennessee 10 years ago, I persuaded the lead architect to shift his preferred town center site to a flatter location not requiring the filling of a 25-foot deep ravine, which he had no qualms about proposing. And in the Nashville area, I convinced a developer to require his new urban designer to curve one street around a steep knob rather than running straight up and over it, a change he readily embraced after we visited that part of his property to see the situation firsthand.

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## READINGS

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