

## A New Theory of Urbanism

New Urbanists are best known for redesigning conventional suburban developments as small towns. But their principles are equally important for urban, rural and regional planning

by Andrés Duany

The word "growth" once had positive connotations for Americans: better jobs, better shops, better education, a better quality of life. But mention the word these days, and you are likely to hear fulminations about congested traffic, higher taxes, crowded schools and the paving-over of the landscape. How did it come to pass that a nation proud of three centuries of growth, one whose people built the constellations of beautiful villages, towns and cities across a continent, should have so radically changed its outlook?

The reason is that the urban pattern has shifted. Before World War II, when a green field was lost, a hamlet, village or town was gained. It was an even trade. But today when an open space is built on, a housing subdivision, a shopping center or a business park replaces it. For most Americans, it seems like a losing transaction. Whereas prewar developers were generalists—they set out to build entire villages or urban neighborhoods—today's developers are specialists. One builds only shopping centers, another office parks, another houses. Traffic engineers design only the roads; environmental analysts worry only

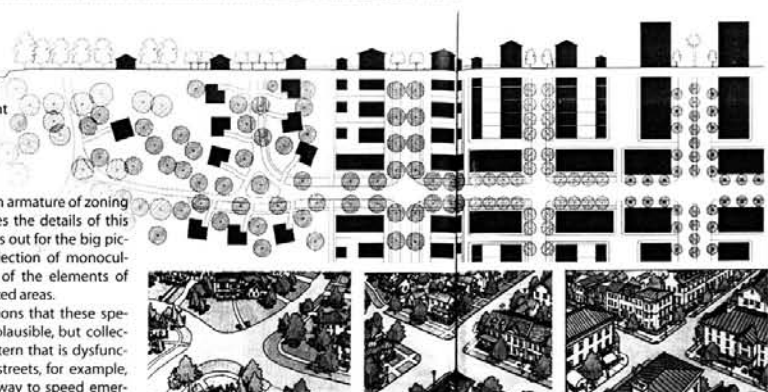
about the open space. An armature of zoning codes minutely describes the details of this process, but no one looks out for the big picture. The result is a collection of monocultures: a disaggregation of the elements of community into specialized areas.

Individually, the decisions that these specialists make are quite plausible, but collectively they lead to a pattern that is dysfunctional. Wide residential streets, for example, seem like a reasonable way to speed emergency vehicles on their way. Yet wide streets are more dangerous for pedestrians, particularly children, and often allow for fewer road interconnections, which may actually make it more difficult for fire trucks to get where they need to go. Whether it is street width, housing density, building placement or landscape layout, no design decision should come in isolation. This is the fundamental insight of the New Urbanists: paying careful attention to how the urban design coheres, drawing on the lessons of prewar developers.

Some have criticized New Urbanism as too suburban; they do not want to live in a modern version of the traditional American small

town. They may also prefer the bustle of city or the quiet of the countryside. But New Urbanism is now general enough to take in a diverse range of human habitats. It has a comprehensive design strategy that works for the full continuum of development, from remote wilderness to dense downtown. The system, known as the transect, now guides many new towns and is in the process of being adopted as code by several counties in the U.S.

The transect is a concept drawn from ecology. It is a geographical cross section through a sequence of environments—for example, from wetland to upland, or tundra to foothill,



**Less Density**  
Primarily Residential  
Smaller Buildings  
Most Buildings Detached  
Deep Setbacks  
Road & Lane Sections  
Paths & Trails  
Open Swales  
Mixed Tree Clusters

**More Density**  
Primarily Commercial  
Larger Buildings  
Most Buildings Attached  
Shallow Setbacks  
Street & Alley Sections  
Sidewalks & Passages  
Raised Curbs  
Single Tree Species

The transect extends the natural environments to the human habitat by increasing density and immersive urban character. The gradient spans from the villa in the woods to the large suburban lots in a common lawn

TRANSECT is an idealized geographical slice from the countryside to the city, shown in cross section (top row) and plan view (bottom row). A set of design principles applies to each increment in density.

served by a spare network of roads and on to urbanized sectors of ever greater complexity and continuity. Villages and towns are composed, in varying measures, of these environments. Cities extend the range to an urban core made of buildings, with little if any nature. All sections fulfill the set of human needs and desires. Based on our observations of vibrant communities, we find a commonality among the design principles for each section of the transect. At the boundaries between sections, including that from the natural to the man-made, an overlap of the envisioned characteristics allows them to fit together smoothly.

The transect does not eliminate the standards embodied in present zoning codes. It merely assigns them to the sections of the transect where they belong. Thus, the existing requirements for street width are not deemed to be right or wrong but rather correctly or incorrectly allocated. Wide streets may be appropriate where speed of movement is justified, even at the expense of the pedestrian environment. Similarly, current standards for closed drainage systems are not wrong; it is just that they are appropriate only for urban areas with curbs and sidewalks. In rural areas,

rainwater can infiltrate through deep, green setbacks and swales. In fact, the transect widens the range of design options. Under conventional codes, for example, front setbacks must either be a 25-foot grass yard or a paved parking lot. The transect offers at least six more options.

Not all possible environments fit into the transect. Civic buildings such as religious, educational, governmental and cultural institutions often demand special treatment. Airports, truck depots, mines and factories are also better off in their own zones. But the transect does away with other, unjustified forms of single-use zoning whereby any attempt to unite the places of daily life—the dwellings, shops and workplaces—is considered an aberration that requires variances. In this regard, a transect-based code reverses the current coding system, forcing the specialists to integrate their work. It is a new system that, as Modernist architect Le Corbusier said in a different context, makes the good easy and the bad difficult. And in so doing, it may reconcile the American public to the growth that has become inevitable.

ANDRÉS DUANY is one of the most influential town planners in the U.S. With his wife, Elizabeth Plater-Zyberk, he is a founder of the Congress for the New Urbanism. He says he was introduced to the concept of the transect in 1983 by his brother, Douglas, who showed him a natural transect on the beach at Grayton, Fla.