The Second Coming of The American Small Town

By Andres Duany and Elizabeth Plater-Zyberk

Until very recently, there were only two views of the American suburb: You either loved it or hated it. In the first camp were most suburbanites; in the second were most writers, planners, and architects. Now a new group of critics has launched a searching yet sympathetic reappraisal of the suburb, and the husband-wife architectural team of Andres Duany and Elizabeth Plater-Zyberk are at the forefront. They see the postwar suburbs as a grand experiment gone awry, ruined less by consumers and developers than by the ignorance of local planners, zoning boards, and traffic engineers. These experts molded suburbs for cars, not people, a catastrophic mistake whose costs we can measure today in traffic congestion, in air pollution, and in the vast sums of public money lavished on roads and infrastructure. But nothing compares to the damage done by the fragmentation of civic life and the radical economic segregation that have accompanied suburban sprawl. Americans long for community, the authors say, and they could have it. The future, they suggest, does not have to be imagined so much as remembered.
-- The Editors

Three years ago, Dade County, Florida, sentenced itself to the absurd fate of perpetual urban adolescence. Responding to a state mandate, the county government adopted a package of "balanced growth" measures, conceding that traffic congestion and growing demands on the public purse for roads and other infrastructure had made it impossible for the city of Miami to grow any further in the old way. Most citizens were pleased. The reaction against growth has become a national phenomenon, although elsewhere it is often much less organized and much more emotional. In California, that harbinger of everything to come in this country, it has reached near-suicidal proportions. In Santa Cruz County, restrictions on growth have crimped the tax base: Three bridges have been closed for lack of funds to pay for repairs. But the people of Santa Cruz apparently would rather endure such difficulties than grow.

This is unprecedented. Never before in American history has growth been so unwelcome. After all, growth signifies more people, more commerce, more prosperity, more culture. It is in the nature of cities and towns to grow, and when they grow no further, like all organisms, they begin to die. What is responsible for this bizarre antipathy is not growth itself but the particular kind of growth we have in the United States. Suburban sprawl is cancerous growth rather than healthy growth, and it is destroying our civic life.

Americans are only beginning to understand that this is so. Many Californians are no longer interested in building more highways to make traffic flow more smoothly; not unreasonably, they now simply want less traffic. The credit for this change belongs partly

to the environmental movement, which has persuaded most Americans of the need to stop ravaging the landscape and polluting the atmosphere with ever more roads and cars. But Americans are also beginning to recognize an important fact. It is not only the atmosphere or the animal habitat that is endangered on this continent. The human habitat is threatened as well.

Growth gone awry can be seen anywhere in suburbia but nowhere more clearly than in the "planned communities," based on derivative versions of the planning ideals embodied in Reston, Virginia, or Irvine, California, that have proliferated on the suburban fringes since the 1960s. Examined piece by piece, these planned communities do seem to offer many of the things that Americans say they want: convenient workplaces, well-managed shopping centers, and spacious, air-conditioned houses full of the latest appliances. But why, when they get all of this, do Americans hate it so much that they want to stop more of it from being created? "No more of this!" they say. "It is ugly and it increases traffic." They are happy with the private realm they have won for themselves, but desperately anxious about the public realm around them. Because of the radical malfunctioning of the growth mechanism, the late-20th-century suburbanite's chief ideology is not conservatism or liberalism but NIMBYism: Not In My Back Yard.

Suburbanites sense what is wrong with the places they inhabit. Traffic, commuting time, and the great distances from shopping, work, and entertainment all rank high among their complaints. But all such inconveniences might be more bearable were suburbs not so largely devoid of most signs of "community." The classic suburb is less a community than an agglomeration of houses, shops, and offices connected to one another by cars, not by the fabric of human life. The only public space is the shopping mall, which in reality is only quasipublic, given over almost entirely to commercial ends. The structure of the suburb tends to confine people to their houses and cars; it discourages strolling, walking, mingling with neighbors. The suburb is the last word in privatization, perhaps even its lethal consummation, and it spells the end of authentic civic life.

Is there an alternative? There is, and it is close at hand: the traditional American town. This is not a radical idea – far from it. When the Gallup Organization asked Americans in 1989 what kind of place they would like to live in, 34 percent chose a small town. Only 21 percent chose a suburb, 22 percent a farm, and 19 percent a city. One hardly needs an opinion poll to discover the allure of towns. The market reveals it. Americans have shown over and over again that they will pay premium prices to live in the relatively few traditional towns that remain, places such as Marblehead, Massachusetts, Princeton, New Jersey, and Oak Park, Illinois.

All of the elements of towns already exist in the modern American suburb. For various historical reasons, though, they have been improperly assembled, artificially separated into "pods" strung along "collector roads" intended to speed the flow of traffic. The pods are specialized: There are housing "clusters" (illustration 1), office "parks," and shopping "centers." These elements are the makings of a great cuisine, but they have never been properly combined. It is as if we were expected to eat, rather than a completed omelet,

first the eggs, then the cheese, and then the green peppers. The omelet has not been allowed to become the sum of its parts.

The tragedy is that we could have been building towns during the 1970s and '80s. But all of that wonderful growth has been wasted, and it is doubtful that we will ever see anything like it again in our lifetimes. Misguided planning, not rapacious real estate developers, is chiefly to blame for this gross miscarriage of growth. Left to their own deuces, developers would have every incentive to build towns. Because towns are more compact than sprawl, the cost of land, streets, water and sewer lines, and other infrastructure is lower. And they can be built at lower risk, in small increments.

The town is a model of development well-suited to times of economic adversity, and it dominated American thinking until World War II. But postwar developers were guided by a new model that emerged out of government economic policy and planning legislation. Matters were complicated by the fact that each of the elements of the town emigrated to the suburbs at different times. First there was the great decanting of the urban population after World War II, encouraged by such well-meaning government programs as Federal Housing Administration and Veterans Administration mortgages and the construction of interstate highways. The supermarkets, small shops, and department stores followed, filling up the new shopping centers and malls. More recently, the office and industrial parks have followed. As early as 1950, 38 percent of the nation's workers were commuting from suburb to suburb, and only half as many were traveling from suburb to city center. Meanwhile, the poor never joined the suburban migration, becoming ever more isolated in the city core, which has become their specialized habitat.

All of this suburban development occurred under the dominion of Euclidian zoning – zoning that requires the rigid segregation of housing, commerce, and industry. That approach to zoning is a residue of the Industrial Revolution, which made it seem desirable to move people's homes away from the dark satanic mills. Such distancing is no longer necessary, of course, since most contemporary office parks and electronics plants make extraordinarily benign neighbors. Nevertheless, every generation of planners attempts to relive that last great victory of the planning profession by separating more and more elements, more and more functions. Even doctors' offices today are kept strictly isolated from the people who use them.

We believe, quite simply, that all of these elements should once again be assembled into traditional towns. But what goes into the design of a town?

One happens to be Alexandria, Virginia, but American towns share so many attributes that it could just as well be Manchester, New Hampshire, or Key West, Florida, or any number of other places. It contains neighborhoods of finite size and definite character which people can easily traverse on foot. Residential areas are seamlessly connected to the rest of the town, and they are not even exclusively residential. They boast corner stores, attorneys' offices, coffee shops, and other small establishments.

In the traditional American town, what is important is not what buildings are used for but the buildings' size and disposition toward the street. Buildings of similar size and characteristics tend to be compatible regardless of their use. Successful towns can be composed of little buildings, like Alexandria, or of relatively big ones, like Washington, D.C., whose buildings are all roughly the same size (thanks to strict height restrictions) though they serve a variety of functions. Some are civic buildings, other house offices, and others contain apartments. In the typical planned community, the formula is completely reversed: The building sizes vary, but the building uses are completely homogeneous. Offices go with offices, for example, never with houses.

Likewise, the streets in the two kinds of communities are conceived in completely different ways. In the planned community there are "collector streets," which are only for cars, and cul-de-sacs, which are hard to describe because while they are supposedly designed for people, they are rarely used. In the traditional town, streets are complex things, usually laid out in grids, with lanes for cars to travel and lanes for cars to park; they are lined with sidewalks, trees, and buildings. This seems like a perfectly obvious description of a street, but the fact is that we no longer design such streets. Traffic engineers now refer to trees as FHOs: Fixed Hazardous Objects. Trees, sidewalks, and buildings impede the flow of traffic; if there must be houses nearby, they are walled off by "sound barriers."

Planned communities suffer from being too diagrammatically planned, and at the heart of their plans is the collector street. In the traditional town's network of streets, there are many ways to get from one place to another. In the planned community, there is only one way: A driver must make his way from his pod onto the collector, and from the collector onto the highway. Then he can go places.

This is a typical product of postwar American planning as expressed through hundreds of local planning, zoning, and public-works codes. In every community, the code is a kind of constitution that lays out the rules that will order the life of the city, the rules that describe the form of urbanism that will emerge, just as the American Constitution contains within it the lineaments of American society. In Virginia Beach, as in most American communities, it is quite easy to conclude that the single most important constitutional principle is that cars must be happy. There are to be many, many lanes of traffic so that cars can move with ease and speed and negotiate turns with extraordinary grace and quickness, sparing the brakes and steering mechanism excessive wear. There is to be no on-street parking that would impede the progress of the blessed auto.

The right to park is the First Amendment in this scheme of things. Every American believes he has a constitutional right to a parking spot, even on those hectic days between Thanksgiving and Christmas. If he cannot get that parking spot, he concludes that something is dreadfully wrong and converts to NIMBYism. So there must be vast parking lots. Local planning codes describe with loving precision what the parking lots are to be like: the number of cars, the type of drainage, the kind of lights that go on them, the size of the parking space, even the paint. Our codes are extraordinarily precise about the needs

of the car. But the needs of the human are another matter. The code reflects no understanding of what being in a parking lot feels like for a human being. When all commercial activities are grouped together, the multilane roads and vast expanses of asphalt parking lot become a necessity.

Attempts have been made to repair the excesses of suburban development, and Virginia Beach illustrates some of them. There are ordinances that eliminate ugly signs, that require the preservation of trees or the planting of new ones, or that mandate the construction of sidewalks. But these efforts are largely cosmetic. Sidewalks are good for the conscience of planners, but they turn out to be so uninviting when dropped into landscapes like this that to be a pedestrian is to be considered a pariah. Driving by in a car, one might charitably offer a ride to a well-dressed person who had wandered onto this sidewalk; otherwise one would assume that a person on foot was indigent, mad, or both.

The token sidewalk reveals its absurd and perilous character most dramatically in the suburban office park, where the pedestrian is exposed to double jeopardy. On one-side is roaring traffic, on the other a sea of cars. The traffic roars because the code forbids on-street parking. A line of parked cars would slow traffic and serve as a buffer of metal between the pedestrian and the moving car, providing an indispensable element of psychological comfort. Without it, the pedestrian feels too exposed. He will not use the sidewalk. Even in Paris, the great city of walkers, stores began to fail when certain avenues were stripped of their parking during the presidency of Georges Pompidou (1969-74). The hapless pedestrian is confronted by another barrier on his other side: the parking lot. It is there because the code requires it. The code requires that the building be set back a great distance from the street, and that means that the parking lot has to be placed in front. The poor pedestrian is thus deprived even of the potential interest of the building which, however miserable a structure it might be, is more interesting than the hood ornaments of cars.

There are people alive today who have never even laid eyes on the alternative to suburbia, people, in other words, who have never seen a real town. Fortunately, the American film and television myth-machine continues to do its part by churning out various simulacra of the American small town. So at least the image survives.

Authentic urban experience has become such a rarity that many places have become tourist attractions simply by virtue of being real towns. Visitors drive hundreds of miles to spend a weekend in places like Sonoma, California, just for the sake of experiencing the pleasures of small-town living.

Pondering the case of world-famous Sonoma, one realizes how pathetically easy it is to make such a place. What, after all, is Sonoma? A few very basic buildings attractively arranged. Yet tourists flock to Sonoma and places like it all over the country. Mount Dora, Florida, another tourist attraction, has two good blocks. Winter Park has four. Yet they are like magic. People come and wander around to see what is denied them in the conventional suburb. This also explains the success of Disneyland and Disney World.

Visitors do not spend as much time on the rides as they do wandering along Main Street USA, and through the multinational urban constructions of Epcot, getting the civic kicks that they cannot get at home.

Most critics of suburbia dwell on its ugliness, yet the chief defect of the suburbs is not so much aesthetic as the fact that as civic environments they simply do not work. Some of the newer and more attractive developments may appear beautiful, but they have insidious social effects. In this typical version of residential planning, all of the housing in each pod is virtually identical. The houses one pod sell for about $350,000. Everybody who lives in those houses belongs to an economic class distinct from the one of people who live in a pod of $200,000 houses and from the one of the people who live in a pod of $100,000 apartments. The development's layout makes random personal contact among people from different economic groups highly unlikely. No longer do we openly sanction the good old American segregation by race and ethnic group; now we have segregation by income level. It is minutely executed in the suburb, and it is consciously promoted through snob-appeal advertising. It is so extreme that the people in the $350,000 houses would rise up in arms if somebody proposed to build a $200,000 house in their pod.

Such economic segregation has far-reaching effects. A whole generation of Americans has now reached adulthood cut off from direct contact with people from other social classes. It is now entirely possible for a child of affluence to grow up in such a class ghetto, attend an Ivy League university and perhaps a top law school, and enter the working world without acquiring any firsthand knowledge of people unlike himself or herself. As a result more and more Americans regard one another with mutual incomprehension and fear, and that accounts for no small share of the tension in our national political life.

Economic segregation is not the American way. The more traditional arrangement, allows people of different economic levels to live together. There are small apartment buildings, relatively more expensive town houses, and single-family houses that are substantially more expensive.

Across the street is a great estate. People of diverse income levels, in other words, can live very close together.

The planning techniques that make such diversity possible are simple, but most of them have fallen into disuse. One method is to match the size and mass of buildings. A large slab-like apartment building in the middle of a street of smaller dwellings instantly signals to passersby that the people living there are different from – either richer or poorer than – their neighbors. Make all the buildings roughly similar in size, however, and the size of the residents' paychecks matters much less.

Coral Gables, Florida, built during the 1920s, demonstrates another valuable planning technique. The system of the "street address" makes use of the fact that street-level perceptions are what matter. Single-family homes exist side-by-side with larger units, but because the mass of each apartment building is tucked away behind a façade roughly

equal in height and width to the houses, the differences are noticeable only from the air. A visitor driving down one of these streets would not be aware that two building types – as well as different types of people – are sharing the same geography.

The current suburban fashion, however, is to lay out sites in almost random manner. The arrangement looks more like the result of a train wreck than of a conscious design. Because the buildings face every which way, they have no real fronts or backs. Consequently, all of the buildings in the pod must be homogeneous, and that means that the people must be alike (at least in terms of income) as well.

On a traditional street, even fairly glaring differences between dwellings can be softened by close attention to architectural details. In places like Annapolis, Maryland, for example, a great historic house worth $1 million or more can sit comfortably next to a pair of tiny 12-foot-wide townhouses. The marriage works because the two structures share architectural expressions. The little townhouses have windows that are like those of the bigger house, doors that are elaborated like those on the neighbor's house, similar roofs, and other common details.

Housing the poor in structures that look different from those of the middle class is a catastrophic mistake. Unfortunately, architects are often tempted to experiment on poor people, dreaming up novel designs for public housing. Architectural experiments should be restricted to the rich. As we discovered with the well-intentioned public-housing projects of the 1960s and later decades, people who are reminded they are different – perhaps only a few of them, but enough to have a large effect – will act differently, and before long the buildings will be in ruins.

Affordable housing must be provided in small increments and must be closely interspersed with market-rate housing. Even when it looks very much like middle-class housing, as it does in Reston, Virginia, housing for the poor quickly reproduces the conditions of the ghetto if it is concentrated in one place. On Cape Cod, there is now a requirement that 10 percent of the housing in large new developments must be affordable, which seems to be about the right ratio for achieving a mix without diminishing the value of surrounding properties. One obstacle to spreading out affordable housing has always been the high price of land. But actually there are plenty of low-cost locations all over America. One such place is "over the store," which in older towns such as Siasconset, Massachusetts, has long provided apartments for the clerks, cooks, or waiters who work below. It is not the American Dream to live over the store, of course, but it works. Every new shopping center built in the affluent suburbs causes a social problem, because the less well-off are forced to travel great distances to work or shop. Requiring developers to build housing above the shops would by itself put a large dent in the affordable-housing problem.

Another source of land is the vast buffer strip so characteristic of suburban development. It is a reflex of modern planners to separate anything "undesirable" – office buildings, high-traffic streets, parking lots – from the rest of the landscape with a broad swath of

green buffer. Why not fill in these spaces with small places designed for people who cannot afford the American Dream?

One of the oldest and most powerful tools for integrating affordable housing into communities is the humble outbuilding. In colonial Williamsburg, the house of the master sat on the front of the lot, and behind it might be a smaller house for his children and a little bit farther back the servants' quarters; all on the same piece of real estate. Residential outbuildings, such as backyard cottages and garage apartments, remained a standard feature of residential neighborhoods well into the 20th century.

An outbuilding is really a bedroom pulled out of the house and equipped with a small kitchen and bath. Because children grow up and leave home, America has millions of empty bedrooms. Had some of them been built as outbuildings, they would now be available for elderly relatives, nannies, students, and many others. But suburban zoning codes completely forbid occupied outbuildings. A homeowner who submits a plan for an outbuilding will find it very thoroughly scrutinized to make sure that he cannot somehow covertly slip in a kitchen and bath. Planning authorities in other countries take precisely the opposite approach. In Canada and Australia, outbuildings are called "granny flats," and government encourages homeowners to build them by offering tax breaks and even grants. But here we ban them.

All of this economic segregation has not even allowed us to create an Eden for those who can afford the American Dream. The modern version of the American Dream is a McMansion, which may have a well-conceived and appointed interior yet almost always lacks the advantages of a neighborhood. The McMansion is both pretentious and isolated, an island in a sea of strangers and cars. Even the much-cherished suburban yard offers no more than a cartoon version of country living, utterly lacking the privacy that it promises, in part because planners have been deprived of the tools to create it.

Americans do not deserve to be treated this badly. They work very hard to achieve the American Dream. Yet in other countries with more sophisticated notions of urban design, people with incomes much lower than those of most Americans enjoy a significantly higher quality of life – not the pseudo-quality of life measured in appliances and cars but quality of life understood in terms of privacy and community. There is a renewed appreciation of these values in America, but the very tools that would allow designers to help revive them have been sacrificed to suburban sprawl.

One of the great mysteries of the American suburb is this: How with such low-density development have we produced such extraordinarily high traffic? How have we achieved the traffic of a metropolis and the culture of a cow town? That, too, has been accomplished by the miraculous postwar planning device of the collector street, festooned with its variety of pods: shopping centers, office parks, schools, and residential areas, each with an independent connection to the collector. This arrangement guarantees that nobody can go to lunch, go shopping, or get to work or school without driving.

In Orlando, Florida, it has been estimated that each single-family house generates an average of 13 car trips a day and thus vast amounts of pollution. Enormous concern about air pollution has prompted California authorities to ban charcoal lighter fluid for home barbecues. But we keep driving. Still, it is not the 13 car trips a day that congest the streets. Asphalt abounds in the suburbs. The problem is that most of it is barely used. Instead, the suburbanite who wants to get anywhere has to make a beeline for the collector. It is on the collectors that the clogging occurs. In fact, in downtown Los Angeles, Washington, D.C., and other cities that still have 19th century grid systems of streets, the best way to shave time off a trip is to get off the collector and use the sidestreets. Why? Because traffic is diffused through capillaries, rather than confined to arteries.

Although some are beginning to alter their views (and their computer software), many traffic engineers refuse to believe that the old street-grid model works better. When they feed data on grid networks into their computers, the results almost always predict overloading at the intersections. In reality, the intersections are not congested at all.

An intelligently designed street system is only the first step in the creation of a workable town. The next is to figure out what it takes to get humans out on the streets, participating in the public realm. Many learned books have been written on civic life, but it is doubtful that many thinkers have greater insight into this aspect of the subject than American shopping-center developers. Understanding the factors that can influence a shopper's decision to walk from one end of a shopping mall to the other – the uses of light, the size and the proportions of spaces, the focusing distance of the human eye – is a matter of life and death to them, because consumers will take their business elsewhere if the mall does not reflect an understanding of human nature.

Some years ago, for example, we proposed putting a post office in a shopping center we were working on, but the developer vetoed it when we told him that it would have to be about 30 feet wide. He explained that people would not walk past a boring 30-foot wall; they would simply turn around without going to the stores on the other side. Design decisions are just that delicate.

Designers need to gain the same kind of insight into the design of housing in order to encourage pedestrian traffic on the streets. Houses should project the human presence within the house to those passing on the street. There is, after all, nothing more interesting to humans than other humans. While suburban developments often have a variety of pleasant features – attractive landscaping, tidiness, compatible colors – they still fail miserably at the vital task of being interesting. The reason, in this case, is that the only information these two houses put forth to passersby is that cars live there. That may give passing cars a nice feeling, but it does not do much for people. It does not encourage them to get out and walk.

At bottom, this a problem of urban design: When housing achieves a certain density but parking remains a necessity, the car's house (the garage) overwhelms the human's house. No architect is skillful enough to make human life project itself on the façade of a house

when 60 percent of it is given over to garage doors. Without them, even a mediocre architect can create a satisfactory design.

The way to banish the garage from the façade is to create an alley behind the house. This humble invention of the 19th century has completely disappeared from the lexicon of planning codes. (We once designed alleys in a Florida project but had to label them jogging "tracts" to get them accepted.) Alleys also yield an important fringe benefit: They allow residents to take their trash off the street. The decline of the alley was completed when the plastic bag was invented. Once Americans no longer had to worry about the stink of garbage, they could put it in front of their homes, which has greatly contributed to the decay of urbanism.

Alleys address another problem: where to put the "services," the gas, electric, water, sewer, and telephone lines. Merely sinking such things underground in the street in front of the house does not solve the problem, in part because utility companies require easements that are two to 10 feet wide. Add that requirement to others – traffic lanes, sidewalks, planters for trees – and the streets become so wide that they destroy the feeling of neighborhood intimacy.

At stake in the design of streets, alleys, and other facets of the suburb, some writers say, is something they call "sense of place." Planners are in hot pursuit of this elusive commodity, yet they seldom manage to achieve it. They seem to think that sense of place can be created by a combination of decorative landscaping, exciting architecture, varied pavement textures, elegant street lights, and colorful banners. We think that achieving a "sense of place" is a much simpler matter, better thought of in terms of sense of space. The designer's chief task is the making of space that draws people out from their private realms to stroll and loiter with their neighbors: public space.

Long ago in Old Town Alexandria, Virginia, the basic elements – town-house, asphalt, cars – were put together in a sensible fashion. The buildings were lined up to form a wall, which defines the street as space. Each unit is distinguished by slightly varying the heights – a far more economical form of articulation. This is very simple, yet it is very rare in suburbia. The superiority of the Alexandria model is not purely theoretical; the market shows that people are willing to pay several times as much to live in Old Town Alexandria as they are to live in a modern town-house in a typical development, several times as much for termite-ridden beams and parking that on a good day is two blocks away. That shows how strong is the human appetite for sense of space. Any architect or planner who does not deliver such good public spaces, easy as they are to create, is not only doing our society a grievous disservice. He is doing the developer he works for a financial disservice.

Aligning buildings will not by itself yield sense of space. It is also important to maintain a certain ratio of height-to-width. From classic texts and our own direct studies of places that seem to possess this ineffable quality, we have derived a good operational rule for creating sense of space: For every foot of vertical space, there ought to be no more than

six feet of horizontal space. In other words, the street width as measured from building front to building front should not exceed six times the height of the buildings.

One reason a sense of space is so rarely achieved in this country is that Americans like their houses low and their front yards deep – a formula for exceeding the ratio. But even this can be mitigated, as it is in many older suburbs, by the use of trees to humanize the height-to-width ratio. That underscores the fact that in the suburbs, landscaping is not just a form of decoration; it is a social necessity. In traditional town planning, landscape architects first correct the spatial problems created by the planners and architects and only then make pretty scenes. Yet today most of them would rather die than line up trees in a row. It is considered uncreative. They would rather design beautiful naturalistic clusters, hoping to foster the illusion that a forest had somehow sprouted in the middle of the city.

Another obstacle to a sense of space is the curvilinear streets, perhaps the most common feature of the suburban subdivision. On a perfectly flat piece of land, the roads twist madly, as if they were hugging the side of a mountain. Streets ought to be laid out largely in straight segments, as they were until the 1940s. After all, the vast majority of our successful towns and cities, from Cambridge to Portland, were laid out this way. Yet we have twice been summarily fired by developers when we submitted plans that included grids. Upon reflection, we realized that the developers had a valid concern, one related to the shopping-center developers' understanding that human beings do not like endless vistas. People do not like to look down a street without being able to focus on its end.

The curvilinear street seems a natural solution, since it constantly closes the vista. But it has unfortunate side-effects. A landscape of curvilinear streets is disorienting (which is why the visitor to the suburbs constantly has the feeling of being lost). Curvilinear streets also prevent the eye from focusing on anything for longer than a fraction of a second. And since the human eye needs at least two or three seconds to perceive architectural gestures – the memorable pediment or façade, the steeple – architects do not bother to provide them. Without such landmarks, the neighborhood becomes a featureless mass of buildings.

Again, it requires no great creative gift to discover alternatives that work with grids. One notable town-planning manual published in 1909, Raymond Unwin's *Town Planning in Practice*, contains page after page of illustrations showing the many ways that intersections can be cleverly used to terminate vistas. In the memorable American cities, such as Charleston, South Carolina, our ancestors even used intersections as sites for churches, civic buildings, and other special structures, and these are the very sites that have become famous and that draw tourists from all over. Today, it would be impossible to build such intersections, because they have been outlawed as threats to public safety at the behest of the traffic engineers.

In fact, it is often the odd intersections that produce the fewest accidents. When we drew up a master plan for Stuart, Florida, the authorities immediately proposed straightening out the town's "confusion corner," an intersection so tangled that a picture of it graces a

postcard. But our research showed that "confusion corner" ranked only 20th for traffic accidents in Stuart. The 19 more dangerous intersections were built to contemporary engineering standards. In Washington, D.C., according to one local architect, 11 of the 12 most dangerous intersections conformed to such modern standards. It is not hard to guess the explanation. A driver on the enormous streets that are now mandatory is more likely to be bored and inattentive (and possibly speeding) than is a driver on a "dangerous" older street.

Grids, intersections, and other devices are important, but other details must be attended to in order to bring people out into the civic realm. One of the most important is the curb radius at intersections. At the now standard 25-40 feet, the curb radius allows the driver of a car traveling 35 miles per hour to negotiate the corner without having to slow down much. That poses an intimidating challenge for a pedestrian attempting to cross the street. Moreover, the gentle curve of the sidewalk, so kind to the car, nearly doubles the pedestrian's crossing distance. A 24-foot-wide road widens to 40 feet where pedestrians cross. Priority has been given to the car, not the pedestrian.

Pedestrians count in places like Boca Raton, where a typical curb radius is eight feet. In Boston, radii of eight or six or even three feet are very common. A typical traffic engineer will swear that such a thing is no longer possible, that it will cause accidents. But it does not.

Common sense has evaporated from the traffic-engineering profession, and the huge costs of its absence are measured in economic as well as aesthetic terms. In America, thanks to the traffic engineers, we push highways right through the middle of cities. By giving a little four-lane road in Orlando the characteristics of a highway, the state turned it into a monster. Highways destroy cities. When it enters a town or city, a highway should become a boulevard. A typical French boulevard actually has more lanes than the typical American highway, but an entirely different effect. The elements and engineering "geometries" of the boulevard are completely different. Buildings and trees line the boulevard and cars park along its length, inviting pedestrians to stroll along its sidewalks.

American taxpayers would be astounded if they realized the true costs of their highways, costs that far exceed the price of construction. Avenues help pay for themselves by enhancing the value of buildings in the vicinity and thus enlarging the tax base. But highways destroy market value and shrink the tax base, forcing local authorities to raise tax rates. Their hidden costs probably run into billions of dollars.

In the United States, we invest too much in "horizontal infrastructure" and not enough in "vertical infrastructure," too much in asphalt on the ground for cars and not enough in buildings for people. Our planning codes and regulations demand a gold-plated asphalt infrastructure, leaving little money for the human infrastructure. The unhappy results are all around us. Some of us have become quite accustomed, for example, to sending our children to schools that are nothing more than trailer parks with fences around them. But the highways are built to ever higher standards; they are wider, the curbs are softer, the

concrete more elaborate. Everything gets better for the cars; we do not dream of denying our automobiles anything.

Building more highways to reduce traffic congestion is an exercise in futility. Whenever it is done, more people are encouraged to take to their cars, and before long the roads are as clogged as ever. We cannot continue to spend as extravagantly on roads as we did during the postwar decades of affluence. We must revert to planning approaches from the days when America was a poorer but smarter nation. The only permanent solution to the traffic problem is to bring housing, shopping, and workplaces into closer proximity.

Reining in the auto would also help solve the problem of affordable housing. At MIT, architects are going to great lengths to find ways to make housing cheaper, developing prefabricated components, spacing wall studs further apart, and using rubber hoses for plumbing. In the end, all of these efforts do not add up to very much – perhaps a $10,000 or $20,000 savings. Nothing can be done that rivals making it possible for a family to get by with one less car. That extra car, so necessary in today's suburb, costs about $5,000 annually to operate. That is a highly leveraged sum, large enough to supply the payments on a $50,000 mortgage at 10 percent interest.

The tyranny of the auto reaches into every corner of American life. Why is the U.S. Postal Service perennially bankrupt? One reason surely is that it has to deliver mail all over the continent in broken down jeeps. The auto's worst victims, however, are the very young and the very old. Every year, hundreds of thousands of people move to Florida and many thousands move out. Many of those emigrants are people who moved to Florida to retire but found after a few good years that they had to go elsewhere. The suburb, they discovered, is poorly suited to the elderly. A suburbanite who loses his or her driver's license – perhaps because of failing eyesight – ceases to be a viable citizen. That person cannot go shopping, visit friends, or get to the doctor's office. He cannot take care of himself. In a town, he can. He may be too old to drive, but he is not too old to walk. Unfortunately, only a few senior citizens are wealthy enough to afford to live in the rare towns that exist – some of these have been dubbed Naturally Occurring Retirement Communities, or NORCs, by demographers. For the less-fortunate majority, nursing homes are frequently the only alternative.

Children are the other great victims of the suburbs. Families move to the suburbs precisely because they are supposed to be "good for the kids." And the fresh air and open spaces are good for them. Suburban sprawl is not. Children in the postwar suburbs are kept in an unnaturally extended state of isolation and dependence because they live in places designed for cars rather than people.

The school is the social center of the child's life, but the routine of the typical suburban school is governed by the school bus. The children are bused in at eight o'clock in the morning and most of them are bused home at three o'clock, regardless of what they are doing, warehoused in front of television sets until their parents come home from work. If the parents do not want their children to lead that kind of life, one of them (almost always the mother) has to stay home to take care of them. And that often amounts to little more

than exchanging a career for a new job as an unpaid chauffeur. Imagine how the lives of children would change if the suburban house and yard were assembled in the form of a traditional neighborhood so that kids could visit friends, go out for a hamburger, or walk to a library on their own.

All of us suffer. The eight-hour workday was the great victory of the past century, but we have squandered our gains by expanding our commuting time. Instead of spending two more hours a day with our families and friends, or forging bonds of community over the backyard fence or at the town hall, we have chosen to spend them competing with our fellow citizens for that scarce commodity called asphalt. That is yet another example of how the public realm has been transformed into an arena of hostility and competition.

Americans are ready for the return of the town. The signs of a revival of interest in community on a smaller scale are everywhere. In major cities, policemen are deserting their patrol cars and walking the sidewalks, not just responding to crises but actually getting to know the people on their beats. The experts have dressed this up by calling it "community policing." New York City is studying the possibility of decentralizing its courthouse system, creating 75 precinct courthouses so that the legal system is brought closer to all citizens. Corporations are moving to small towns; Los Angeles yuppies by the thousands are leaving the city's sprawl for the more traditional neighborhoods of Portland and Seattle.

Developers are starting to catch on to this reality. During the 1960s, most of their advertising appealed to snobbism; during the '70s it emphasized security; now "community" sells. The marketing experts at Arvida, the largest and probably the most sophisticated developer in Florida, have promoted one of their new developments, Weston, by calling it a "hometown" and advertising various "lifestyle attractions." But developers are cautious because Americans seem to have been so happy buying houses strewn amid suburban sprawl. Arvida, like other developers that have taken this tack, did not actually build a town. Weston is much the same as any other suburban planned community, with the usual shopping and housing pods connected to collector streets.

Building real towns will require changing master plans codes, and road-building standards, and, above all, attitudes! The mindless administration of rules enshrining the unwisdom of the past half century must cease; the reign of the traffic engineers must end. Americans need to be reacquainted with their small-town heritage and to be persuaded of the importance of protecting the human habitat every bit as rigorously as the natural habitat. Architects and planners and developers can be leaders and educators, but ordinary citizens will have to insist that the happiness of people finally takes precedence over the happiness of cars, that the health of communities takes precedence over the unimpeded flow of traffic. As the great architect Louis Sullivan wrote in 1906:

> If you seek to express the best that is in yourself, you must search
> out the best that is in your people, for they are your problem, and
> you are indissolubly a part of them. It is for you to affirm that which
> they really wish to affirm. Namely, the best that is in them. If the

people seem to have but little faith, it is because they have been tricked so long. They are weary of dishonesty, more weary than they know, much more weary than you know. The American people are now in a stupor. Be on hand at the awakening.

These were hopeful words in 1906. Nearly a century later they are urgent.