

## "The Pedestrian Pocket"

from Doug Kelbaugh (ed.), *The Pedestrian Pocket Book* (1989)

**Editors' introduction** Peter Calthorpe is an urban futurist very much rooted in both the realities of the present and the traditions of the past. As a practicing architect who also teaches at the University of California, Berkeley, Calthorpe is a successful designer/builder. As a leading proponent of ecology and environmentalism as applied to urban design, he is a prophet of a new kind of twenty-first century community, the "pedestrian pocket" that is descended directly from Ebenezer Howard's garden cities (p. 321), transit-oriented development (TOD), and the "new urbanism."

Working as a researcher for the California Energy Commission and the United States Department of Energy, Calthorpe wrote extensively and lectured around the world on the necessity of ecologically sensitive design and energy-efficient building based on the application of passive solar techniques. For a time, he was a partner of Sim Van der Ryn, the California state architect in the administration of progressive governor Jerry Brown and co-author of "An introduction to Ecological Design" (p. 519). Together, they published *Sustainable Communities* (1986), an influential volume that helped spread the ideas of solar energy, recycling, appropriate technology, and environmentalist approaches to urban planning and design.

In *The Pedestrian Pocket Book*, Calthorpe examines the "profound mismatch between the old suburban patterns . . . and the post-industrial culture in which we now find ourselves." The similarities between his solution and the one proposed by Howard in 1898 are striking. Both the garden city and the pedestrian pocket are surrounded by greenbelts of permanent agricultural land. Both are relatively dense developments, allowing residents to walk to the urban center in a short period of time. Both combine residential, commercial, and workplace elements; and where the garden city was served by a railroad connection, the pedestrian pocket avoids the typical suburban monoculture of the automobile by a system of light-rail transit connectors.

Although the source of the pedestrian pocket is the garden city, the real application of the Calthorpe plan will be – indeed, already is – in the blossoming new ring of suburban development currently springing up around the old metropolitan cores, the area that journalist Joel Garreau has dubbed "Edge City" and which Robert Fishman calls "technoburbs" (p. 77). In his most recent book, *The Next American Metropolis* (1993), Calthorpe has further refined and matured the pedestrian pocket idea to fit the emerging realities of Edge City technoburbia with what he calls TODs or "transit-oriented developments." Calthorpe is the most practical of urban visionaries because his visions represent "a response to a transformation that has already expressed itself: the transformation from the industrial forms of segregation and centralization to the decentralized and integrated forms of the post-industrial era." This, he writes, is the result of "a culture adjusting itself" to new realities.

Andres Duany and Elizabeth Plater-Zyberk, Jaime Correa, Steven Peterson and Barbara Littenberg, Mark Schimmenti, Daniel Solomon and a number of other architects and planners are designing human

scale communities with design aspects similar to the ones Calthorpe espouses. Because their architecture draws on traditional small-town elements these architects are sometimes referred to as neotraditionalists, their work as "the New Urbanism."

This selection is from Doug Kelbaugh (ed.), *The Pedestrian Pocket Book* (New York: Princeton Architectural Press, 1989). Other books by Peter Calthorpe include, co-edited with Sym Van der Ryn, *Sustainable Communities* (San Francisco: Sierra Club Books, 1986), and *The Next American Metropolis* (New York: Princeton Architectural Press, 1993).

Peter Katz, *The New Urbanism: Towards an Architecture of Community* (New York: McGraw-Hill, 1994) provides an overview of designs by Peter Calthorpe and other of the "new urbanists." See also James Howard Kunstler's, *The Geography of Nowhere* (New York: Simon and Schuster, 1993) for a lively description of Calthorpe and other new urbanists' work.

There is a profound mismatch between the old suburban patterns of settlement we have evolved since World War II and the post-industrial culture in which we now find ourselves. This mismatch is generating traffic congestion, a dearth of affordable and appropriate housing, environmental stress, a loss of open space, and lifestyles that burden working families and isolate the elderly and singles living alone. This mismatch has two primary sources: a dramatic shift in the nature and location of our work place and a fundamental deviation in the character of our increasingly diverse households.

Traffic congestion in the suburbs signals a strong change in the structure of our culture. The computer and service industries have led to the decentralization of the work place, causing new traffic patterns and "suburban gridlock." Where downtown employment once dominated, suburb-to-suburb traffic now produces greater commuting distances and time. Throughout the country, over 40 percent of all commuting trips are now between suburbs. These new patterns have seriously eroded the quality of life in formerly quiet suburban towns. In the San Francisco Bay area, for example, 212 of the region's 812 miles of suburban freeway are regularly backed up during rush hours. That figure is projected to double within the next twelve years. As a result, recent polls have traffic continually heading the list as the primary regional problem, with the difficulty of finding good affordable housing running a close second.

Home ownership has become a troublesome – if not unattainable – goal, even with our double-

income families. Affordable housing grows ever more elusive, and families have had to move to less expensive but more peripheral sites, consuming irreplaceable agricultural land and overloading roads. In 1970 about half of all families could meet the expense of a median-priced single-family home; today less than a quarter can.

Moreover, the basic criteria for housing have changed dramatically as single occupants, single parents, the elderly, and small double-income families redefine the traditional home. Our old suburbs were designed around a stereotypical household which is no longer prevalent. Over 73 percent of the new households in the 1980s lack at least one component of the traditional husband, wife and children model. Elderly people over 65 make up 23 percent of the total number of new homeowners, and single parents represent an astonishing 20 percent. Certainly the traditional three-bedroom, single-family residence is relevant to a decreasing segment of the population. The suburban dream becomes even more complicated when one considers the problem of affordability.

In addition to these dominant questions of traffic and housing, longer-range consequences of pollution, air quality, open-space preservation, the conversion of prime agricultural land, and growing infrastructure costs add to the crisis of post-industrial sprawl. These issues are manifested in a growing sense of frustration – placelessness – with the fractured quality of our suburban megacenters. The unique qualities of place are continually consumed by chain-store architecture, scaleless office parks and monotonous subdivisions.



## THE SERVICE ECONOMY: DRIVING DECENTRALIZATION

As new jobs have shifted from blue collar to white and grey, the computer has allowed the decentralization of the new service industries into mammoth low-rise office parks on inexpensive and often remote sites. The shift is dramatic: from 1973 to 1985 five million blue-collar jobs were lost nationwide while the service and information fields gained from 82 to 110 million jobs. This translated directly into new office complexes, with 1.1 billion square feet of office space constructed. Nationwide, these complexes have moved outside the central cities, with the percentage of total office space in the suburbs shifting from 25 percent in 1970 to 57 percent in 1984.

Central to this shift is a phenomenon called the "back office," the new sweatshop of the post-industrial economy. The typical back office is large, often with a single floor area of one to two acres. About 80 percent of its employees are clerical, 12 percent supervisory and only 8 percent managerial. In a survey of criteria for back-office locations, forty-seven major Manhattan corporations ranked cost of space first, followed by the quality of the labor pool and site safety. These criteria lead directly to the suburbs where land is inexpensive, parking is easy, and (most importantly) the work force is supplemented by housewives - college-educated, poorly paid, nonunionized, and dependable.

This low-density office explosion has rejuvenated suburban growth just as urban "gentrification" has run its course. The young urban professional has recently made a family commitment and feels the draw of the suburbs. Most of the growth areas in the United States - office parks, shopping malls and single-family dwelling sub-divisions - have a suburban character. Although such growth continually seems to reach the limits of automobile congestion and building moratoriums, there are no readily available alternatives that will enrich the dialogue between growth and no-growth factions, between public benefit and private gain, between the environmentalist and the businessperson.

## THE PEDESTRIAN POCKET: A POST-INDUSTRIAL SUBURB

Single-function land-use zoning at a scale and density that eliminates the pedestrian has been the norm for so long that Americans have forgotten that walking can be part of their daily lives. Certainly, the present suburban environment is not walkable, much to the detriment of children, their chauffeur parents, the elderly, and the general health of the population. Urban redevelopment is a strong and compelling alternative to the suburban world but does not seem to fit the character or aspirations of major parts of our population and of many businesses. Mixed-use New Towns are no alternative, as the political consensus needed to back the massive infrastructure investments is lacking. By default, growth is directed mainly by the location of new freeway systems, the economic strength of the region and standard single-use zoning practices. Environmental and local opposition to growth only seems to spread the problem, either transferring the congestion to the next county or creating lower and more auto-dependent densities.

Much smaller than a New Town, the Pedestrian Pocket is defined as a balanced, mixed-use area within a quarter-mile or a five-minute walking radius of a transit station. The functions within this 50- to 100-acre zone include housing, offices, retail, day care, recreation, and parks. Up to two thousand units of housing and one million square feet of office space can be located within three blocks of the transit station using typical residential densities and four-story office configurations.

The Pedestrian Pocket accommodates the car as well as transit and walking. Parking is provided for all housing and commercial space. The housing types are standard low-rise, high-density forms such as three-story walk-up apartments and two-story townhouses. Only the interrelationships and adjacent land use have changed. People have a choice: walk to work or to stores within the Pedestrian Pocket; take the light rail to work or to shop at another station; car pool on a dedicated right-of-way; drive on crowded freeways. In a small Pedestrian Pocket, homes are within

walking distance of a neighborhood shopping center, several three-acre parks, day care, various services, and two thousand jobs. Within four stops of the light rail in either direction (ten minutes), employment is available for 16,000, or the amount of back-office growth equivalent to that of one of the nation's highest-growth suburbs over the last five years.

This mix of uses supports a variety of transportation means: walking, bus, light rail, car pool, and standard automobile. The goal is to create an environment that offers choices. Providing comfortable mid-day pedestrian access to retail, services, recreation, and civic functions is essential in order to encourage people to car pool. Similarly, the location of the station, whether bus or rail, near home or work and the realistic opportunity to handle errands without a car are tied to an individual's decision to use mass transit. A Pocket configuration that allows easy access by car to all commercial and residential development maintains the freedom of choice. The result is the best of both worlds.

The Pedestrian Pocket is located on a dedicated right-of-way which evolves with the development. Rather than bearing the large cost of a complete rail system as an initial expense, this right-of-way facilitates mass transit by providing exclusively for car pools, van pools, bikes, and buses. As the cluster matures, transit investments are made for light rail in the developed right-of-way. But the growth of this land-use pattern is not dependent on this investment; the system is designed to support many modes of traffic and to phase light rail into place when the population is great enough to support it.

The Pedestrian Pocket system would eventually act in concert with new light rail lines, reinforcing ridership and connecting existing employment centers, towns and neighborhoods with new development. Light rail lines are currently under construction in many suburban environments, such as, in California alone, Sacramento, San Jose, San Diego, Long Beach, and Orange County. They emphasize the economies of using existing right-of-ways and a simpler, more cost-effective technology than heavy rail. In creating a line of Pedestrian Pockets, the public sector's role is

merely to organize the transit system and set new zoning guidelines, leaving development to the private sector. Much of the cost of the transit line can be covered by assessing the property owners benefiting from the increased densities.

The light rails in current use provide primarily a park-and-ride system to connect low-density sprawl with downtown commercial areas. In contrast, the Pedestrian Pocket system is decentralized, linking many nodes of high-density housing with many commercial destinations. Peak-hour traffic is multidirectional, reducing congestion and making the system more efficient. Bus systems, along with car-pool systems, can tie into the light rail. Several of the Pockets on a line have large parking facilities for park-and-ride access, allowing the existing suburban development to enjoy the services and opportunities of the Pockets. However, the location of the office, stores and services adjacent to the station and each other avoids the need for secondary mass transit or additional large parking areas.

The importance of the Pedestrian Pocket is that it provides balanced growth in jobs, housing, and services, while creating a healthy mass-transit alternative for the existing community. The key lies in the form and mix of the Pocket. The pedestrian path system must be carefully designed and form a primary order for the place. If this is configured to allow the pedestrian comfortable and safe access, up to 50 percent of a household's typical automobile trips can be replaced by walking, car pool and light rail journeys. Not only does this produce a better living environment within the Pocket, but the reduction of traffic in the region is significant and in many cases essential.

## HOUSING: DIVERSITY IN NEEDS AND MEANS

Housing in the Pedestrian Pocket is planned to provide each of the primary household types with affordable homes that meet their needs. Families with children, single parents or couples need an environment in which kids can move safely, in which day care is integrated into the neighborhood, and in which commuting time is



reduced. The townhouses and duplexes proposed for the Pedestrian Pocket allow these families to have all this as well as an attached garage, land ownership and a small private yard. These building types are more affordable to build and maintain than their detached counterparts yet still offer individual ownership and a private identity. The common open space, recreation, day care, and convenient shopping render these houses even more desirable. Group play areas are located off the townhouses' private yards and are connected to the central park and the commercial section by paths. One-third of the housing in a Pocket is of this type.

For singles and "empty-nesters," traditional two- and three-story apartment buildings or condominiums keep costs down while allowing access to the civic facilities, retail services and recreational amenities of the extended community. This segment of the population is traditionally more mobile and thus has an option of either rental or ownership housing. Elderly housing is located close to the parks, light rail and service retail; this eliminates some of the distance and alienation typical of housing facilities for the elderly. The housing is formed into courtyard clusters of two-story buildings which provide a private retreat area and the capacity for common facilities for dining and social activities. Residence in a pedestrian community allows the elderly to become a part of our everyday culture again and to enjoy the parks, stores, and restaurants close at hand.

Several parks double as paths to the station area, a route which is pleasant and free of automobile crossings. The housing overlooking the parks provides security surveillance and twenty-four-hour activity. Each Pocket offers a different arrangement of day-care buildings and general recreational facilities in its parks. Although the housing forms small clusters, the central park and facilities tend to unify the neighborhood, giving it an identity and commonality missing in most of our suburban tracts. An organization (much like a condominium homeowner's organization), which includes landlords, townhouse owners, tenants, office managers, and worker representatives, maintains the centers.

The goal of this tight mix of housing and open space is not just to provide more appropriate homes for the different users or to offer the convenience of walking but hopefully to

reintegrate the currently separated age and social groups of our diverse culture. The shared common spaces and local stores may create a rebirth of our lost sense of community and place.

## COMMERCE AND COMMUNITY

Jobs are the fuel of new growth, of which the service and high-technology fields are the spearhead. For example, the San Francisco Bay region has currently about 63 percent of all its jobs in these areas. That percentage is expected to increase in the next twenty years, adding about 200,000 new jobs in high technology and 370,000 new jobs in service. Retail activity and housing growth always follow in proportion to these primary income generators. The Pedestrian Pocket provides a framework that allows jobs and housing to grow in tandem.

The commercial buildings in the Pocket offer retail opportunities at their ground floor and offices above. The retail stores enjoy the local walk-in trade from offices and housing, as well as exposure to light rail and drive-in customers. All the stores face a "Main Street" on which the light rail line, the station and convenience parking for cars are mixed. This multiple exposure and access, along with the abundance of office workers, creates a strong market for the theaters, library, post office, food stores, and other convenience stores located in the one hundred thousand square feet of retail.

The offices above the retail stores provide space for small entrepreneurial businesses, start-up firms and local community services. Behind these offices, parking structures capable of accommodating one-half the workers in all the commercial space are located. Presumably, the other half of the employees walk, car pool, or arrive by light rail.

There is a 500,000 to 1,000,000 square foot potential in two to four office buildings per Pedestrian Pocket. These four-story buildings, with 60,000 square feet per floor, fit the size and cost criteria of most back-office employers. The buildings form a courtyard open to the station on one side and the park on the other. Office employees share day-care facilities and open space with the neighborhood.

The commercial mix attempts to balance housing with a desirable job market, stores, entertainment, and services. But the commercial

facilities and the offices are not entirely financially dependent on the local housing; access by automobile from the existing neighborhoods and by light rail from other Pockets augments the market. Similarly the transportation system makes a pool of employees available from a twenty-mile range.

## REGIONAL PLANNING AND THE PEDESTRIAN POCKET

Pedestrian Pockets are not meant to stand alone as developments; they are intended to form a network offering long-range growth within a region. They will vary considerably given the complexities of place and their internal makeup. Some may be larger than the sixty-acre model we've been using as an example: the quarter-mile walking radius actually encloses 120 acres. Pockets may offer different focuses, with one providing a regional shopping center, one, a cultural center, or a third, housing and recreation. Some may be used as redevelopment tools to provide economic incentives in a depressed area; others may rejuvenate an aging shopping area; the remaining Pockets may be located in new areas zoned for low-density sprawl and in this way save much of the land from more drastic development.

Pockets and their rail lines also connect to the existing assets of an area. The system links the major towns, office parks, shopping areas, and government facilities and allows those from earlier communities to gain access to the Pocket system. Many new light rail systems, built only to connect existing low-density development, are experiencing some resistance from people not wanting to leave their cars. The importance of rezoning for a comfortable walking distance from house to station is to ease people out of their cars, to give them an alternative which is convenient and pleasing. There is evidence that in time such planning will succeed: in a study of San Francisco's rail transit system, BART, it was discovered that fully 40 percent of those who lived and worked within a five-minute walk of the station used the train to get to work.

To test this regional planning concept I chose an area north of San Francisco, combining Marin and Sonoma counties. Many consider the area prime turf for new post-industrial sprawl.

Sonoma is projected to have a 61 percent growth in employment in the next twenty years, the highest in the Bay region. Combined, these two counties are to grow by about 88,000 jobs and 63,000 households in the next fifteen years. Of the new jobs, around 60,000 will be in the service, high-technology and knowledge fields, the equivalent of twenty million square feet of office and light industrial space. With standard planning techniques, this growth will consume massive quantities of open space and necessitate a major expansion of the freeway system. The result will still involve frustrating traffic jams.

Instead, twenty Pedestrian Pockets along a new light rail line accommodate this office growth with matching retail facilities, businesses and approximately 30,000 new houses. Several additional pockets dedicated primarily to homes allow two-thirds of the area's housing demand to be met while linking the counties' main cities with a viable mass-transit system. A recently acquired, Northwestern Pacific railroad abandoned right-of-way, which would connect a San Francisco ferry terminal to the northernmost county seat, forms the spine for such a new pattern of growth.

## SOCIAL AND ENVIRONMENTAL FORM

It is easy to talk quantitatively about the physical and environmental consequences of our new sprawl but very difficult to postulate their social implications. Many argue that there is no longer a causal relationship between the structure of our physical environment and that of our human well-being or social health. We are adaptable, they claim, and our communities form around interest groups and work rather than around any sense of place or group of individuals. Our center is abstract, not grounded in place, and our social forms are disconnected from home and neighborhood. Planners complicate the issue by polarizing urban and suburban forms. Some advocate a rigorous return to traditional city forms and almost preindustrial culture, while others praise the evolution of the suburban megalopolis as the inevitable and desirable expression of our new technologies and hyper-individualized culture. However rationalized, these new forms have a restless and hollow feel, reinforcing our mobile state and the instability of



our families. Moving at a speed that allows only generic symbols to be recognized, we cannot wonder that the man-made environment seems trite and overstated.

In proposing the Pedestrian Pocket the practical comes first; the Pedestrian Pocket preserves land, energy and resources, reduces traffic, renders homes more affordable, allows children and the elderly more access to services, and decreases commuting time for working people. The social consequences are less quantitative but perhaps equally compelling. They have to do with the quality of our shared world.

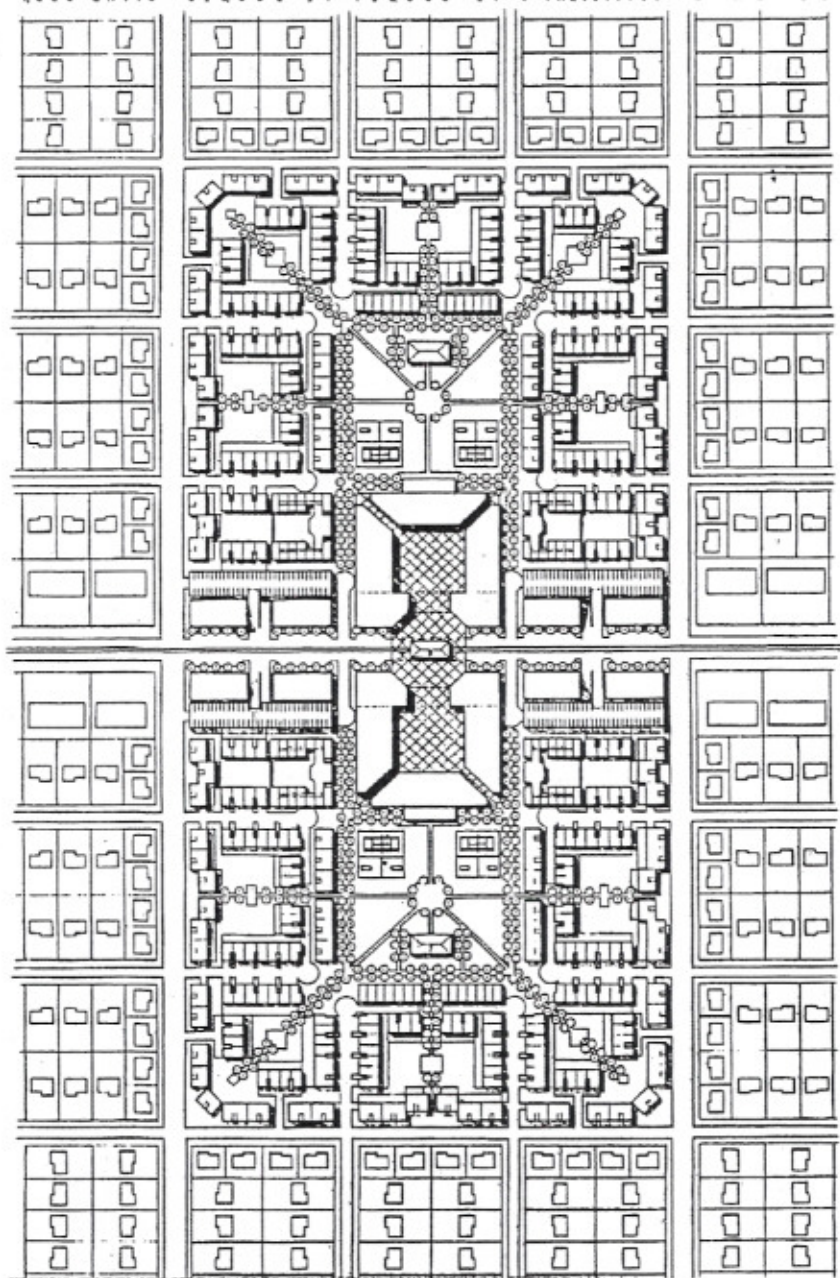
Mobility and privacy have increasingly displaced the traditional commons, which once provided the connected quality of our towns and cities. Our shared public space has been given over to the car and its accommodation, while our private world has become bloated and isolated. As our private world grows in breadth, our public world becomes more remote and impersonal. As a result, our public space lacks identity and is largely anonymous, while our private space strains toward a narcissistic autonomy. Our communities are zoned black or white, private or public, my space or nobody's.

The automobile destroys the urban street, the shopping center destroys the neighborhood store, and the depersonalization of public space grows with the scale of government. Inversely, private space is taxed by the necessity of providing for many activities that were once shared and is further burdened by the need to create identity in a sea of monotony. Although the connection between such social issues and development is elusive and complex, it must be addressed by any serious theory of growth.

In one way, Pedestrian Pockets are utopian — they involve the directed choice of an ideal rather than of laissez-faire planning, and they make certain assumptions about social well-being. But by not assuming a transformation of our society or its people, they avoid the full label, and its subsequent pitfalls, of most utopian schemes. They represent instead a response to a transformation that has already expressed itself: the transformation from the industrial forms of segregation and centralization to the decentralized and integrated forms of the post-industrial era. And perhaps, Pedestrian Pockets express the positive environmental and social results of a culture adjusting itself to this new reality.

# PEDESTRIAN POCKET

HOUSING 1,000 UNITS    BACK OFFICE 625,000 SF    RETAIL 100,000 SF    DAYCARE 4 FACILITIES    OPEN SPACE 8 ACRES



**Plate 32 Peter Calthorpe's plan for a pedestrian pocket.** Some modern architects and planners are incorporating elements from earlier small towns into their plans. California architect Peter Calthorpe advocates and has designed a series of "pedestrian pockets" which link land use and transportation. Calthorpe's pedestrian pockets are dense enough to support light rail systems, environmentally sensitive and pedestrian friendly. Calthorpe's designs emphasize front porches and de-emphasize garages. (© Calthorpe Associates.)