### CHAPTER 1

## Introduction: A Brief History and Description of Live-Work

What is the significance of live-work? What are its implications for our lives? Live-work is not merely about buildings, or units, or lofts, or lifestyles. Ultimately, the cessation of commuting—and the provision of a built environment that allows one to exercise that choice is about rediscovering settlement patterns and urban designs that bring our lives back together, that shorten or eliminate the separation between the most important parts of our lives, and that result in more livable, life-affirming environments for all.

Since the time people began to farm land and employ laborers, "work" has often been seen as an activity that is a subset of "life." For thousands of years, cities and towns contained shophouses—the original live-work buildings—in which work and commerce were carried on at the street level and some or all of the workers lived above or behind the work area. The shophouse (see Figure 1-1), as it has traditionally been called, is referred to as the flexhouse by New Urbanists, and that is the term used in this book. The form is further defined as "live-near" in Chapter Two: Definitions.

The onset of the industrial revolution and associated advances in transportation technology meant that daily commuting over some distance to a centralized, organized place of employment became the rule rather than the exception in those parts of the world most dramatically impacted by the industrial revolution—primarily the United States and much of Western Europe. As larger workplaces became more



**Figure 1-1** A shophouse in Grenada, Spain (called a flexhouse in this book) where living and/or work occurs at the street level and living occurs above, enlivening the public realm while providing flexibility over time.

common, a significant shift occurred: The distance workers were required to travel each day increased; thus began the activity we call commuting.

As early as the late nineteenth century, the effects of technology and intense urbanization gave rise to movements for social improvement, leading to separated-use zoning. Living near industry—and therefore close to one's place of employment—was seen as posing a risk to health, safety, and welfare. While well intentioned, and in many cases necessary,

the effect of this separation added to commuting time. Zoning laws were enacted requiring that separate sectors of the city be set aside for industrial and residential uses, which, while challenged in the courts, were upheld in the famous 1926 *Euclid* decision (see Chapter Six: Planning).

By the middle of the twentieth century, our society had "progressed" to the point where separation between the various activities of our lives in both time and place had been sanctified by social structures—institutions, employment, neighborhood organization—and codified by laws, specifically zoning and planning regulations that told us that we must work *there*, live *here*, buy *there*.

Flexhouses and housing over retail were an important element of the fabric of cities and towns in the United States and were built until the beginning of the Great Depression, when virtually all privately financed building ground to a halt. When construction activity resumed after the Second World War, changes in transportation and settlement patterns led most development away from city centers, following a more decentralized, single-use pattern commonly known as suburban sprawl. The flexhouse was not a component of this new pattern. Almost all forms of combined living and working arrangements became illegal in the United States, except in a few large cities.

Meanwhile, lengthy automobile commutes—enabled by cheap gasoline and newly built interstate highways radiating out from city centers—became the unquestioned norm, reinforced by separated-use zoning. Starting in the 1960s, suburban workplaces grew increasingly prevalent in an environment characterized by three segregated components: residential subdivisions, shopping malls, and office parks, all laid out as cul-de-sacs whose only entrance was from crowded arterial roads. (See Figure 6-1 for a diagram of this suburban pattern contrasted with connected, walkable urbanism.) With suburbs accounting for around 60 percent of all office floor space in the United States, the predominant commute pattern became suburb to suburb.<sup>1</sup>

Building officials closed ranks along the way in order to enforce the separation between residence and work through codes that segregate uses—such as living and working—into "occupancies," which, when mixed within a building, require a fire wall separation and sometimes entirely different construction types. Therefore, most building codes require that, for safety reasons, we must separate with fire walls the various components of our lives and the structure of our days.

Commuting, once a short trip by foot or by trolley, has become an ordeal. As discussed, suburban sprawl and segregated uses require one to make lengthy automobile trips not only to and from work but also to perform each and every function of life, from minor to major, from mailing a package to shopping for food. As a result, approximately 36 percent of our population—children, the disabled, and the elderly, who cannot drive—are forced to rely on others for their daily transportation needs.<sup>2</sup> Long commutes and the constant need for auto travel conspire to make our lives ever more disconnected and fragmented.

According to an August 2007 Gallup poll, "the vast majority of American adults employed full or part-time, 85 percent, say they generally drive themselves to work. Six percent of workers say they usually ride with someone else to work, 4 percent take mass transportation, and 3 percent walk." The average round-trip commute time reported in this same Gallup survey is 48.1 minutes.<sup>3</sup> Multiply that by five days, four weeks, and twelve months, and the result is 4.81 work weeks—almost twenty-five days—spent commuting.

Live-work—especially when located in a mixed-use livework neighborhood—brings life's disparate functions back together and gives us back those nearly five weeks a year spent commuting to spend at or near home with our families and friends, in the garden, taking walks, and generally enjoying life. This book is about the ways that live-work is helping to bring people's lives back together, and the nuts and bolts of how to design it and get it approved and built.

# The Modem and the Shipping Container

Live-work as we know it today owes its existence to two technological advances that occurred in the second half of the twentieth century: the modem and the shipping container.

The widespread adoption of modular shipping containers (see Figure 1-2) beginning in the 1950s and '60s meant



**Figure 1-2** A ship in the Port of Oakland (California) loaded with shipping containers, California, the technological advance that made downtown multi-story loft buildings redundant and kicked off the first generation of live-work.

that an entire building type — the downtown loft warehouse — became redundant and essentially surplus.

As ports from New York to San Francisco containerized, suddenly landlords from SoHo to SoMa couldn't give their loft space away. Thus the first postwar generation of livework began with artists, who seized this opportunity and began to colonize loft districts in ports and railheads throughout the industrialized world. Our most effective futurists, teaching by action (and art) rather than words, artists have always preferred to live where they work; stepping into the breach created by containerization was a natural move for them. Most of these early artists' live-work spaces were illegal; the first efforts to regulate them involved rudimentary attempts to maintain a modicum of life safety while looking the other way as the artists occupied and revived derelict areas.

Once it became clear that a trend was emerging, first in New York in the 1970s and then in San Francisco about a decade later, the loft phenomenon began to attract the attention of real estate developers, which led to greater scrutiny from planning and building departments. Increasingly, non-artists saw the appeal of loft spaces, and many simply treated them as spacious open-plan apartments (see Figure 1-3) in great, if edgy, new mixed-use neighborhoods. Lofts became hip, they appeared in Hollywood movies, and trendy loft conversions began to pop up in cities throughout the industrialized world.

Some see live-work as the most important changeinducing agent to impact cities since the invention of the skyscraper, or at least since cities began to empty out after the Second World War. In the 1980s, a new class of consumer the yuppie — began to inhabit so-called lifestyle lofts, spawning espresso bars, tapas joints, and boutiques in newly gentrified neighborhoods (see Figure 1-4) and attracting visitors from the suburbs and other parts of town.

By the 1990s, most cities in North America had converted loft districts, and the familiar successional pattern of artists pioneering, yuppies colonizing, and the establishment of predominantly (albeit gritty) residential mixed-use neighborhoods had become an accepted component of the urban real estate cycle. Depending on whom you ask, this phenomenon, sometimes called the SoHo Cycle, is either feared (by artists and small business owners) or relished (by developers and speculators). Planners find it a quandary, although most come down on the side of the latter, calling it revitalization. Neighborhood activists are more likely to call the SoHo Cycle gentrification, a term that implies dislocation of the underprivileged.



**Figure 1-3** Mezzanine bedroom view of a lifestyle loft at Willow Court, Oakland, California. 2007. Designed by Thomas Dolan Architecture.

New York's once-pioneering SoHo arts district is now home to Pottery Barn and assorted bed and bath outlets. Tribeca, sparsely populated by SoHo refugees (including the



**Figure 1-4** A French patisserie in Tribeca, Duane Park, New York City, a warehouse district that was home to artists' live-work some thirty years ago and is now an established, decidedly upscale neighborhood.

author) in the 1970s, now sports Michelin-rated restaurants, private schools, and pediatric clinics, while the artists have long since fled to Williamsburg, Bushwick, Long Island City, Jersey City, Hoboken, and the hinterlands beyond.

The second technological advance—leading to the second generation of postwar live-work—was the advent of the computer modem, which, when combined with a scanner, gave us the fax machine in the 1980s, quickly followed by e-mail and the Internet in the 1990s. Home-based business start-ups are enabled in part by affordable home office automation and the Internet, which significantly lowers the barrier to entry. Suddenly it was possible to run a small business while appearing to be an established concern, all from the comfort of one's home.

"Home office" constituted the mainstreaming of livework and increasingly occurred in new buildings (as well as renovations), whether they were single-family houses or purpose-built live-work projects. As discussed in Chapter Four: The Market for Live-Work, the number of people who work at home is growing (see Chapter Four: Market). And that work takes many forms, including telecommuting, consulting for offsite clients, or incubating a business. Examples of occupations that are often the work component of a livework space include: consultant, artist, therapist, hairstylist, architect, author, and graphic designer. Live-work frequently functions as a small business incubator, part of the Incubator Cycle that will be discussed later. A business born and nurtured in such a situation might or might not outgrow its live-work birthplace.

However, many new residents of urban live-work, often children of the suburbs, have never known an absence of commuting; they're not quite sure how to handle this new situation. Many soon realize that working at home is fundamentally different from going off to the office every day. They're not out on the rialto or mixing at the water cooler. They are in one place most of the time, and they are alone most of the time. Most soon find out that they feel isolated, which can lead to some level of dissatisfaction.

What second-generation live-workers often do not perceive consciously is that this new and fundamentally altered relationship among work, residence, and place calls for an entirely different view of settlement patterns and how they meet our needs for interaction, commerce, services, and convenience. For example, a single-use residential subdivision where half the households consist entirely of residents working at home is bound to be full of people who are suffering from feelings of isolation with very little opportunity to alleviate the problem. The issue in this situation is not one that can be solved by remodeling the house; to be happy as a live-worker, a work-at-home resident of such a subdivision likely needs to move to a walkable urban location where opportunities for interaction are more readily available.

### Zero-Commute Living<sup>™</sup>

Beginning in the late 1980s, several factors conspired to make commuting less attractive and live-work more desirable, to the point that new buildings began to be designed and built with this use in mind, such as Ocean View Lofts in Berkeley, California (see Figure C-1 in the color folio).

Other than the fact that, in many cities, most of the buildings well suited to live-work conversion were already occupied, some of the other factors contributing to the rise of newly constructed live-work included:

- 1. Live-work's inherent affordability (i.e., eliminating a rent payment by combining home and workplace)
- 2. The transportation cost savings realized by not commuting
- 3. The increasing number of two-income households, where one breadwinner would do best being at or near home
- 4. The tremendous savings in time realized by not commuting, leading to more opportunities to walk, garden, and socialize in one's neighborhood
- The role of the Internet, social media, and teleconferencing in making face-to-face meetings and onsite work less necessary
- 6. The advantages of being able to work when the spirit moves you, at any hour (a benefit artists have known for years)
- 7. The tendency for new construction live-work to be located near urban services, amenities, and transit
- 8. New-construction live-work being encouraged by codes and other governmental inducements

Recently, many aging baby boomers have realized they no longer need a big house in the suburbs; the kids are gone, the big yard and suburban school systems are no longer necessary, and they want to be where they can walk to cultural events, cafes, and nightlife. As a result, new buildings are being designed and built with these users in mind. The conversion and new construction of urban live-work lofts for aging boomers has been a significant factor driving the reinhabitation of urban downtowns. Likewise, the millennials, now entering household-forming age and less interested in the suburbs than were their predecessors, are an important market for rental lofts.



**Figure 1-5** Flexhouses in a new neighborhood, Glenwood Park, Atlanta, Georgia, Planned by Dover-Kohl, 2004, whose configuration allows the flexibility for their uses to change over time: "buildings that learn."

Meanwhile, greenfield New Urbanist communities have become a primary locus of second-generation live-work. Live-work units are being included in many such projects, typically in the form a townhouse with a separated work space on the first floor—the flexhouse. Live-work in such communities tends to be located in or near the town center, in close proximity to services and in some cases transit.

Housing over retail has historically been an important form of live-work and should not be overlooked—it is an important component of a live-work neighborhood. The flexhouse, mentioned earlier, is a promising type that has recently reemerged. A "building that learns," the flexhouse usually takes the form of a series of rowhouse bays (see Figure 1-5) intended—and preapproved—to evolve from townhouse/home office residences (albeit with a full separation between ground floor and upper levels) into loft housing over retail in response to shifting demand and the maturing of the retail market in a given location. In fact, many flexhouses are used from the outset as housing over retail by separate parties, as in Habersham, South Carolina, described in a case study in Chapter Four: Market.

#### **Overview of Live-Work**

Live-work is a building or buildings that provide both residential and work space on a single property, some of whose residents might work there, and which might also accommodate nonresident employees.

In the larger sense, live-work is a land use and building type that is a combination of commercial and residential, yet is at once neither and both. In the case of a live-work neighborhood, defined in Chapter Two: Definitions, most residents work within a one-quarter-mile walk of where they live, if not at home. Housing over retail is also an important component of a live-work neighborhood, where most if not all the functions of one's daily life can be accessed on foot within a five- to fifteen-minute walk. Such "complete neighborhoods" may contain few named live-work units, but they meet the basic criterion of proximity that is essential to live-work.

Live-work takes a variety of forms and appeals to a wide range of users, from starving artists sharing a single kitchen and sizable work spaces in an old warehouse to wealthy empty nesters paying seven (or eight!) figures for chic lofts. Live-work can be a townhouse in a New Urbanist community such as Kentlands in Maryland (see Figure 1-6), where the offices of *The Town Paper* are located on the first floor, and the developer says he wishes he'd built four times as many live-work units.<sup>4</sup> Live-work can include an alley-facing home office in a greenfield community, which might double as a granny flat, a spare room, or a teenager's clubhouse. It can be a home office, or housing over retail, or a flexhouse designed to accommodate street-fronting live-work and intended to evolve into housing over retail as the market matures.

All of these are forms of live-work. In fact, architect and planner Andrés Duany, cofounder of the Congress for the New Urbanism, has stated, "In the twenty-first century all residences will be live-work."<sup>5</sup> The New Urbanism and its regulatory policy synonym, Smart Growth, "promotes the creation and restoration of diverse, walkable, compact, vibrant, mixed-use communities composed of the same components as conventional development, but assembled in a more



**Figure 1-6** Flexhouses in Kentlands, Maryland, an early traditional neighborhood development planned by Duany Plater-Zyberk & Company.

integrated fashion, in the form of complete communities. These contain housing, work places, shops, entertainment, schools, parks, and civic facilities essential to the daily lives of the residents, all within easy walking distance of each other."<sup>6</sup> These aims are fully expressed in many built New Urbanist communities. "Live-works," as the New Urbanists call these building types, are a component of the town center of virtually every traditional neighborhood development (TND). Livework is arguably the signature building type of New Urbanism, of urban pioneering in the form of loft conversions, and of the postindustrial city in the form of new infill lofts in places like SoMa, LoDo, and the Pearl District of Portland, Oregon.

Live-work, then, is about flexibility, mixed use, and proximity. Live-work units can be for residents who may work there or for workers who rarely sleep there. In fact, the same unit might accommodate both modes within a few short years. Live-work residents are fiercely loyal to the type for just these reasons: When their lives change, that's fine; they are in a unit that can accommodate the multiple stages of life, *and* their commute will always be a very short walk.

More than any other building type, live-work is a combination of uses that is sure to change over time, so it is particularly appropriate in a mixed-use or flexible-use district, sometimes called "a neighborhood that learns" (with apologies to Stewart Brand). An important result of this flexibility is that, unlike the offerings present in our most common forms of housing, a live-work resident typically does not have to move every time he or she enters a new phase of life, such as the transition from parent to empty nester. This is one reason why a live-work neighborhood can be called a "lifelong neighborhood," as mentioned in Chapter Five: Community.

#### Live-Work Types and Terminology

As live-work has evolved over the last forty years into a recognized land use and building type and a marketable real estate "product," it has spawned almost as many ways of describing, regulating, financing, and selling it as there are cities in which it exists. Each city, operating in a relative vacuum, has elected to reinvent the wheel when it comes to planning and building regulations. Central to this book is an attempt to create a common language, starting with the definitions in Chapter Two: Definitions. That language and the terms the author has coined include several ways of parsing live-work units and projects into types, as follows:

• Dominance and intensity of work use versus living activity: work/live, live/work, and home occupation

- Proximity between living and working activities, reflected in the form of the unit: *live-with*, *live-near*, and *live-nearby*
- Project scale, ranging from single-family residential to high-density urban lofts
- Location and construction, from greenfield to grayfield, and from new construction infill to renovation of existing buildings

Choosing to work at home and thus to stop commuting has many consequences at the individual, regulatory, and societal levels. The rise of live-work has been a sizable challenge for real estate and lending communities due to laws and regulations that discourage mixed-use buildings and development. Our government institutions, banks, and investors are still-in many cases-stuck in a mode of encouraging and funding separated, single-use developments, which live-work is not. Nevertheless, the rise of mixed-use planning practices, New Urbanism, and the real estate community's acceptance of live-work have combined to allow a greater understanding of live-work as a component of mainstream settlement patterns. This is especially true in the places where it is most common, such as loft conversions in larger cities and flexhouse live-works in greenfield New Urbanist communities.

#### Live-Work Planning and Urban Design

Most jurisdictions today are governed by conventional zoning, which separates cities into single-use zones. Many forms of live-work run counter to this segregated-use model. For example, home occupation—that is, an individual choosing to work at home in a residential zone—is seen by many as anathema to the residential character of that place. Nevertheless, home occupation, often called home office, is an important type of live-work, and one that is carried on by millions of people. Many cities have enacted home occupation regulations; most are written to limit the impact of the work activity on surrounding properties.

Yet, as noted, there are forms of live-work that occur in commercial or industrial districts (see Figure 1-7), places that traditional zoning deems out-of-bounds to residences. Such places are often pioneered by artists in outlaw live-work. Mainstream live-work development in such areas can result in unintended consequences, including imported NIMBYism, a particularly damaging expression of land-use incompatibilities, as is detailed in Chapter Six: Planning.

The presence of live-work conversions of existing buildings, often without benefit of permits, is an important indicator



**Figure 1-7** New live-work lofts in an industrial district of San Francisco, where the presence of new residents—"imported NIMBYs" —caused repeated conflicts, often forcing industrial operators to curtail their operations or move altogether.

of a district in transition to a neighborhood. Such a transformation can be successful or not, depending on multiple factors, not least being:

- The viability of the existing commercial district
- The availability of services, transit, and other amenities
- The availability of sufficient in-place infrastructure
- The enactment of carefully crafted regulations and incentives

These prerequisites for a successful live-work neighborhood are addressed in Chapter Six: Planning.

As noted in the history recounted earlier, the colonization of commercial/industrial districts for live-work, usually led by artists, often serves as the catalyst for the transformation into mixed-use neighborhoods. The SoHo Cycle occurs widely and has frequently resulted in the revitalization of large and small downtowns, helping them fight back against urban flight by creatively reusing their existing infrastructure, their gridded, connected streets, and their historic building stock. When managed successfully, such live-work–led revitalizations can help counter freeway-driven "leakage" of commercial and residential activity and bring it back downtown.

Live-work combines two widely held ideals: *being my own boss* and *owning my own home*. It is also the only building type that combines housing and employment under one roof. For these reasons, live-work is often encouraged by planning departments and economic development agencies. "Live-work-play environments"—urban neighborhoods that combine housing, employment, and entertainment—are extremely attractive to economic development directors.

#### The Role of Artists

While some of our most interesting urban places were pioneered by artists who spontaneously created live-work neighborhoods by illegally occupying and popularizing them, the SoHo Cycle has required artists to endure repeated, involuntary moves from one district to the next. Tribeca (see Figure 1-8), in fact, was where artists moved who were priced out of SoHo.

The seemingly inevitable sequence of events that comprise the SoHo Cycle raises raises many important questions:

- What is the role of artists living and working in our cities?
- Do we as a society value the presence of working artists?
- Do we value artists enough to take regulatory or fiscal steps to ensure that a certain number of artists are able to occupy and remain in long-term affordable space?
- What do we as a society owe artists, if anything?
- Do pioneering artists, sometimes called the shock troops of gentrification, deserve better than an outlaw loft and eviction after a couple of years?

Such questions will be explored in Chapter 6: Planning. As the sculptor Bruce Beasley said as he began South Prescott Village—his pioneering artists' live-work project designed by the author: "You can't make art if you don't have a place in which to make it."

#### **Building Codes**

Building departments have often been reluctant to embrace live-work, particularly varieties that do not include a fire-rated



**Figure 1-8** A storefront in Tribeca, lower Manhattan, located in the building where the author lived in 1975, a time when lofts were cheap and there were virtually no neighborhood or city services.

separation between living and working portions. It turns out that living and working in the same "common atmosphere" flies in the face of the basic tenets of life safety as laid out in model building codes. Until very recently, in the absence of locally calibrated code relief, a one-hour rated *occupancy separation* was often required between the living and working portions of a live-work unit, because they are viewed as separate occupancies.

The 2009 version of the International Building Code (IBC), the applicable model code throughout the United States—and, increasingly, the world—contains for the first time Section 419, devoted to live-work. While it addresses only one of the many types of live-work, one can infer from its basic principles—which include the omission of an occupancy separation between living and working portions—how one might write code for other live-work types.

Other building code issues in live-work depend on whether there is walk-in trade or employees. If the answer is yes, the work space is truly commercial and must be made fully accessible according to the Americans with Disabilities Act (ADA) or other local codes directed at disabled occupants. If walk-in trade and employees are not present, residential code is likely to apply throughout the unit.

Chapter Seven: Building Codes draws from the author's nearly thirty years of experience in the field, during which he has written a comprehensive live-work building code. Many significant building code issues are addressed in detail in that chapter; additionally, a model live-work building code system can be found in Appendix B: Model Live-Work Building Code System.

#### **Common Mistakes in Live-Work**

While some forms of live-work are well suited to almost any location, a project that either is built in the wrong location or designed without an adequate understanding of the unique needs of live-workers can lead to a situation that often fails to meet its full potential and, at worst, can result in a social and/ or financial disaster. Some of the ways that a live-work project can go astray include:

- Failing to understand live-work's inherent potential for isolation
- Following on the above point, failing either to locate the project on a great street or to design opportunities for interaction within the project, or both

- Building unseparated live-work (live-with proximity type), which is permitted under IBC Section 419 (see Chapter Three: Design), and mistakenly assuming that the living and working portions of said units can be held or rented by separate parties
- Acting on a mistaken belief that live-work can thrive in isolated, single-use situations such as a cul-de-sac subdivision or an isolated industrial district (unless it's a pioneering artists-only project)
- Locating ownership or high-end rental live-work in an existing, viable commercial/industrial setting, where new residents are likely to immediately complain about the legal and long-standing commercial activities of their neighbors, who were of course there first
- Enacting planning and building codes ostensibly to encourage artists to occupy and improve existing commercial buildings in a potential "live-work-play" or "arts district" environment, then failing to enforce requirements that only artists will be permitted (an almost impossible combination of tasks)
- Developing an individual live-work project aimed at artists or small-business entrepreneurs, then allowing the project to devolve into strictly residential; the result will be a greatly diminished sense of community within the project once tenants or owners are "only sleeping there"

#### **Retrofitting Suburbia**

As noted earlier, most live-work built or renovated in the past forty years has occurred as either renovation within or infill to existing urban centers or greenfield construction in New Urbanist town centers. However, retrofitting the suburbs (see Figure 1-9), one of the greatest challenges that North American planners and designers are likely to face until at least mid century, will be about reintroducing proximity, community, and a revived public realm to replace the separation, isolation, and excesses of the private realm enabled by seemingly endless cheap oil. Live-work will play an important role in the remaking of suburbia, as it has and will continue to do in our urban centers. As parts of suburbia-such as failed shopping malls-lead the way beyond suburbia as we know it, the flexibility of live-work in its many forms will enable the transition to new patterns of development, such as the acclaimed Mizner Park in Boca Raton, Florida.



**Figure 1-9** Ahead of their time, these four flexhouse live-works near Milford, Delaware, were the beginning of a project that foundered in the crash of 2008; others have fared better (see Habersham Case Study, Chapter Four: Market).

Conventional sprawl development—characterized by separated land uses, voracious consumption of land resulting in highly dispersed, low-density settlement patterns, and a supply of cheap gasoline—without which it could not exist—is, in the long run and perhaps the middle-to-short run, entirely unsustainable and contributes significantly to global warming. Enter live-work, the value of proximity, and the convenient choice: the reconstitution of our landscape into compact, walkable communities linked by efficient mass transit.

Forward-thinking planners have identified the need for automobile transportation as an important measure of dysfunction in a place; inevitably such a view will reach a tipping point and be more fully addressed in policy and planning regulations. California's pioneering global warming legislation, AB 32 and SB 375, which contains land use standards that guide its implementation, is an excellent example, although as of this writing it is largely untested.

The inherent principles of live-work-proximity, walkability, and community-will be important ingredients if we are to slow or halt human-caused global warming. In the face of the recent economic downturn and its effect on housing and real estate, one might ask: Can we afford the kind of waste inherent in letting office parks sit empty all night and residential subdivisions sit empty all day, and the wasteland that has resulted from it? This book argues that the elimination of waste-specifically, the excess amount of unused real estate when evaluated over the course of a twenty-fourhour day and a full week, and the time, fuel, and money wasted on an arrangement that requires excessive reliance on the automobile-presents an opportunity for the creation of community in the form of cities and towns whose basic unit is the compact, walkable, live-work neighborhood organized around a quarter-mile-radius pedestrian shed (pedshed).