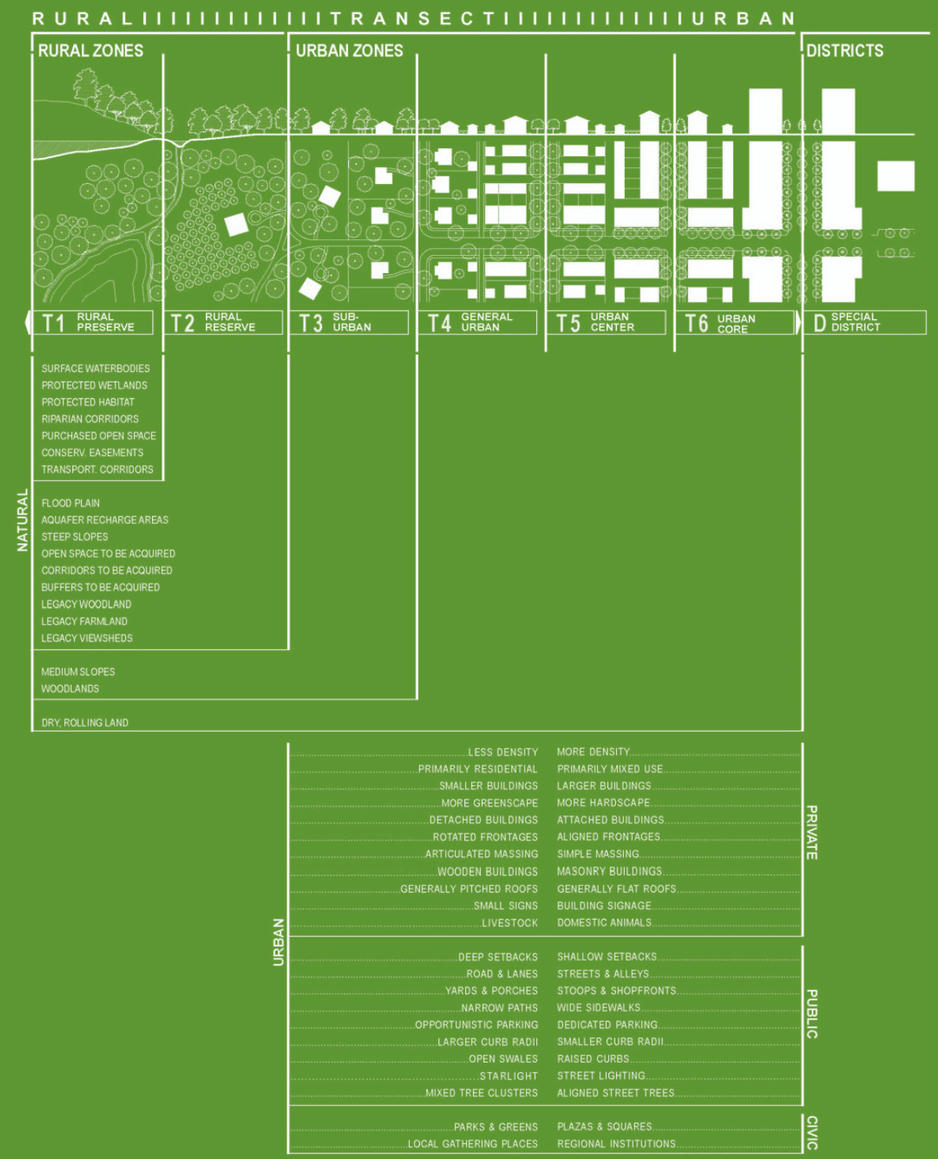


Virtually every natural and cultural element may be put into relative order by the urban-to-rural transect. This diagram, from the application of the transect in the SmartCode, includes a summary list of key physical elements that can be calibrated along an urban-to-rural continuum. Transect-based code writing seeks to permit a mix of uses in all settings, but to control for intensity by zone. The goal is to avoid the large areas of monoculture that are so damaging to community building. Drawing courtesy of Duany Plater-Zyberk & Company.

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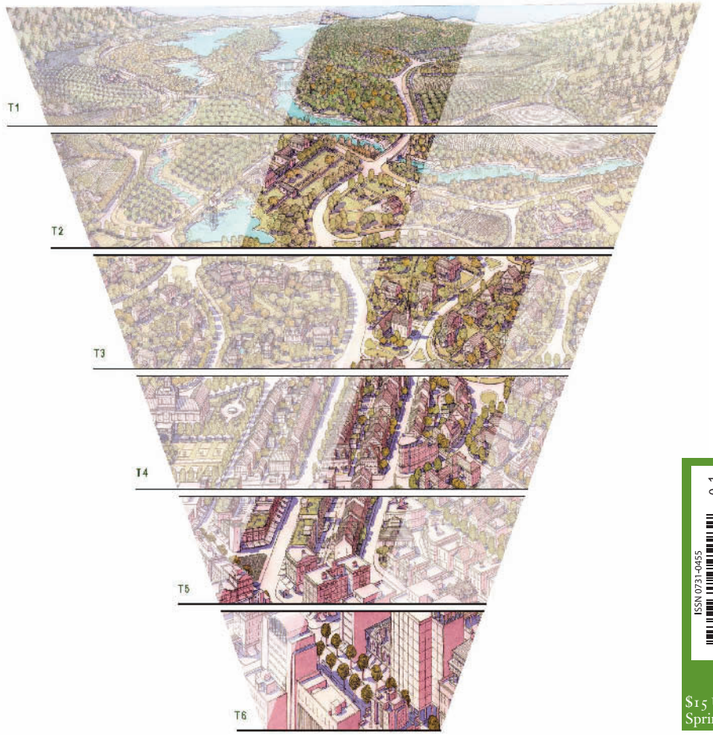
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Building Community Across the Transect

***Places*, Forum of Design for the Public Realm**

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Building Community across the Rural-to-Urban Transect

Charles C. Bohl with Elizabeth Plater-Zyberk

> *Eighty percent of everything ever built in America has been built in the last fifty years, and most of it is depressing, brutal, ugly, unhealthy and spiritually degrading.*
> *— James Howard Kunstler,*
> The Geography of Nowhere[1]

> *In 2030, about half of the buildings in which Americans live, work and shop will have been built after 2000. While these projections may seem overwhelming, they also demonstrate that nearly half of what will be the built environment in 2030 doesn't even exist yet, giving the current generation a vital opportunity to reshape future development.*
> *— Arthur C. Nelson,* Toward a New Metropolis: The Opportunity to Rebuild America[2]

The 80 percent of the American built environment described by Jim Kunstler as the "geography of nowhere" has appeared incrementally over the last half century under the influence of land use regulations and a web of codes, standards, and business practices that now represent a national system for the mass-production of sprawl. The placeless character of what passes for community building today is the product of an ad hoc framework that now governs making and remaking the physical form of neighborhoods, cities, rural areas—and entire regions.

This "hidden" regulation of place has been the subject of increasing scrutiny. As Andrés Duany has observed, "what is assumed to be a neutral, market-responsive and technocratic system is actually heavily biased."[3] Empirical studies have now confirmed a regulatory bias favoring conventional suburban development at the expense of more varied local and urban forms.[4] Nevertheless, the power of sprawl as a business strategy and wealth generator has remained largely unchallenged. As a result, there is today a crucial need for a more explicit understanding of how hidden instruments such as engineering standards, building codes, zoning ordinances, lenders' guidelines, and other professional tools shape the possibilities for place making and community building long before any designer ever picks up a pencil.[5]

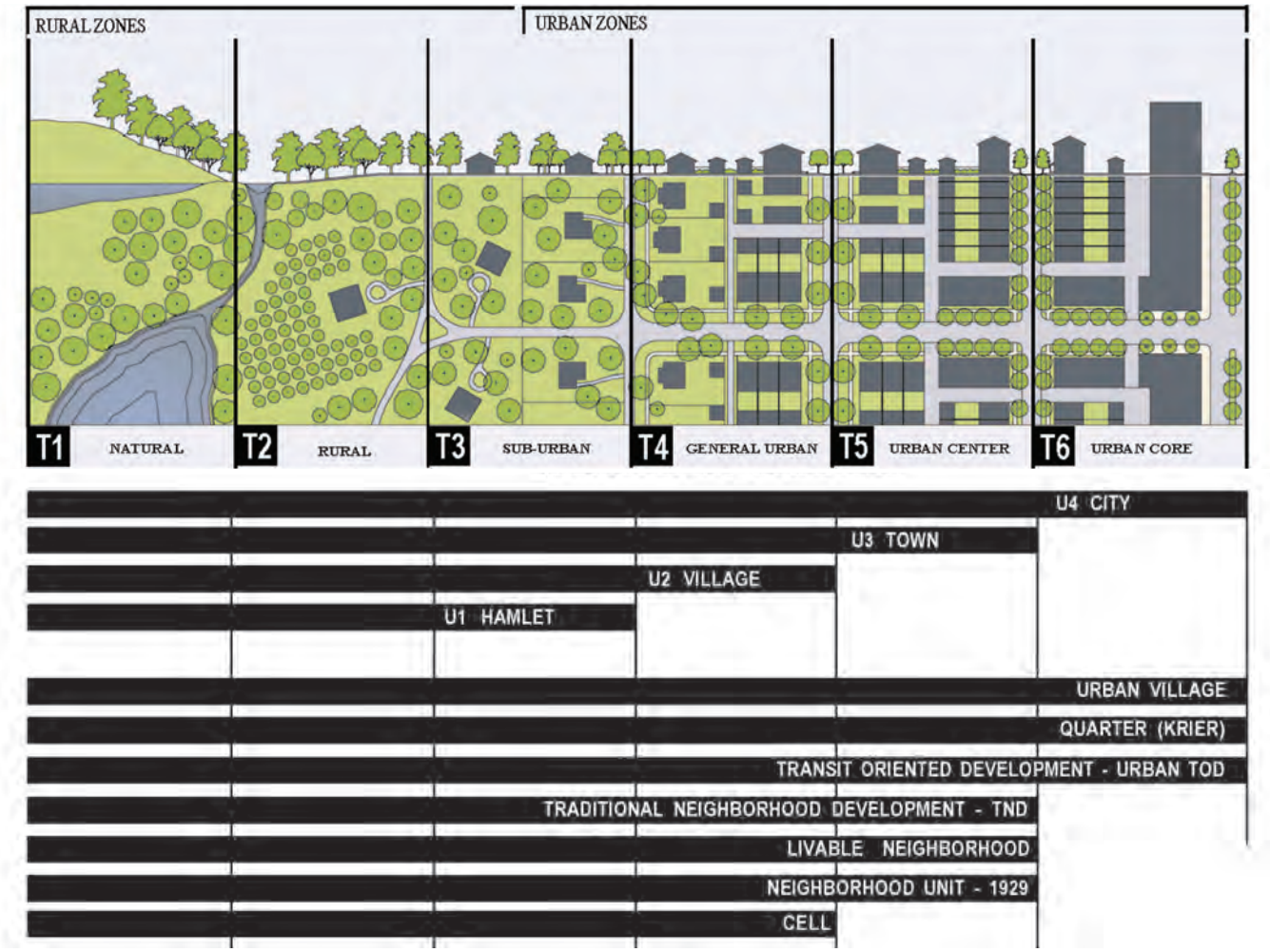


Above: Anywhere, U.S.A., a product of present land use regulations. Photo by Charles C. Bohl

Opposite: The rural-to-urban transect encompasses a full spectrum of environments. This diagram shows a gradation of natural and manmade elements within its six principal zones, in section and plan. The diagram also indicates how transect zones correlate with some of the nomenclature of traditional urbanism. They are not, however, adaptable to conventional single-use zoning. Drawing courtesy of Duany Plater-Zyberk & Company.

Among those studying American development trends, real estate analyst Christopher Leinberger has written that the development industry is now focused on building the same nineteen real estate product types in every community in America.[6] These generally represent single-use, stand-alone properties with floor-area ratios from 0.1 to 0.4 (i.e., where buildings cover only between 10-40 percent of a total site area, and the rest is devoted primarily to parking).[7] These standardized product types have been refined by the industry over many decades, making them relatively easy to finance, build, lease and sell. In recent years the growth of real estate investment trusts (REITs) have transformed these real estate properties into commodities that can be bundled and traded as investment portfolios.

Together with a lowering of interest rates, such commoditization has provided much of the basis for the present U.S. building boom. Clearly, these development products have been successful at meeting the functional needs of businesses and consumers, and such development now pervades the fabric of our metropolitan areas. Yet, the staunch opposition to growth in communities nationwide also reveals how satisfying basic functional needs is not enough. While the real estate industry has become very good at building these single-use, automobile-oriented projects, the projects themselves are not very good at building communities. Ad hoc aggregations of single-use projects have proven to be ill suited for creating communities that are socially diverse, environmentally sensitive, and economically sustainable. The result is a widespread dissatisfaction with growth and sprawl, and the clamoring for new

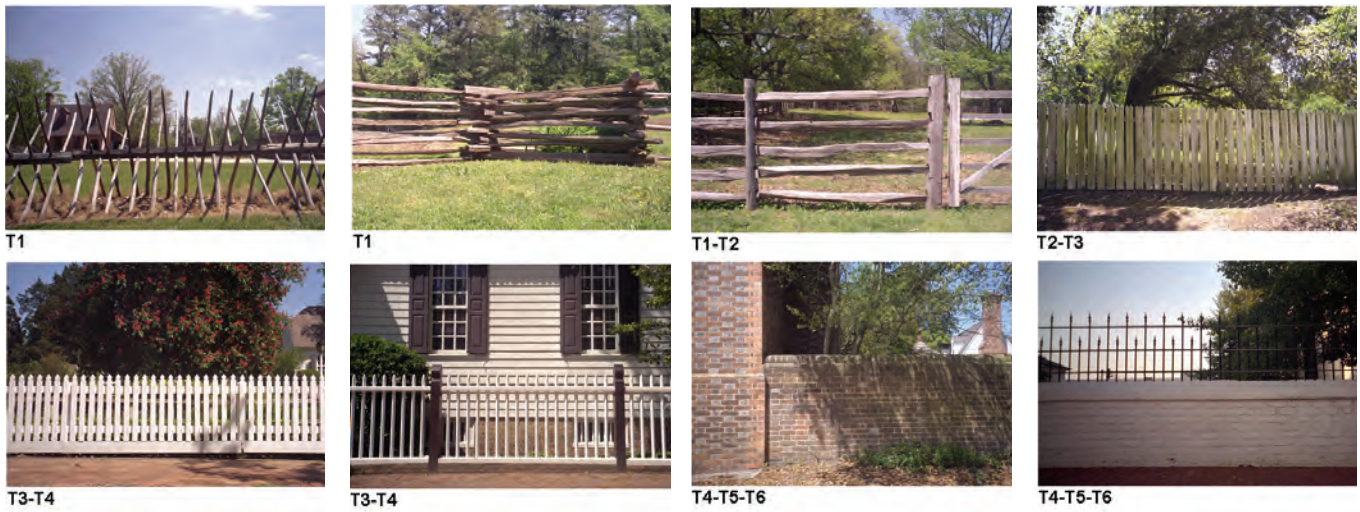


methods of building communities that are more distinct, memorable, livable and worth caring about.

Contemporary ways of envisioning, planning and building—based on land use zones, traffic flows, and the replication of real estate products—stand in stark contrast to earlier ways that Americans planned towns and cities. Here is Benton MacKaye, writing in the late 1960s, about the rationales that informed the community builders of his hometown of Shirley Center, Massachusetts, when it was founded in 1753:

> *The committee made its report and recommendations (their "town plan"). The cornerstone would be the Meetinghouse (the "sacred tree" that went with the moot-hill). On one side would be the Churchyard, dedicated to eternity. On the other side the Common, devoted to posterity. Around this would be "clustered," besides the homesteads and the Town Hall, the Meetinghouse, Schoolhouse and Country Store.* They would make the "five senses" that constitute a complete rural community: home, government, religion, education, and commerce *each represented by its appropriate structure.*[8]

The above passage shows how much knowledge about community building has been lost in recent times. The good news, however, is there will be a great opportunity in coming years to go beyond current hypercommercial practice to build healthier, more fulfilling environments. As the Brookings Institution study cited at the beginning of this article estimates, nearly *half* the built environment in the United States will be built or rebuilt over the next 25 years.[9] The question is, will the same system—the same types of codes, policies, business models, and practices—



continue to mass-produce sprawl using cookie-cutter forms? Or can the current and succeeding generations make the most of their "opportunity to rebuild America" to create a greater variety and quality of places to meet a greater variety of needs?

We believe the positive resolution of this question cannot be based simply on zoning reform within the current framework. In recent decades many attempts to fashion better regulatory tools—through planned-unit development, flexible zoning, performance zoning, overlay districts, design guidelines, and the like—have produced little or no gain. Today, communities with weak or non-existent zoning, such as Houston, simply offer different arrangements of the same sprawl-inducing types as more regulated communities. As long as the basis of regulation and development remains divorced from holistic concepts of environment and society, of the region and community character, the results will be the same.

This issue of *Places* concentrates on an alternate vision for organizing community building: the rural-to-urban transect. The articles focus on the transect as both a conceptual framework for describing and better understanding the qualities that help distinguish rural, suburban and urban places from one another, and as an alternative basis for determining the practical plans, rules and regulations that constitute the playing field for future place making and community building.

Above: The transect is a taxonomic engine that can place a range of artifacts in useful order at many levels of design. In this case, the declension of fences in Williamsburg, Virginia, support a clear transect from edge to center, from countryside to King Street. These familiar fence types, when placed in inappropriate transect zones, may be considered kitsch. Photos courtesy of Duany Plater-Zyberk & Company.

Opposite: The SmartCode is a model form-based code derived from the transect. It contains detailed recommendations for the design of buildings and public spaces. This page from the code provides model transect-related guidelines for the area between a building and the street. In practice, these would be modified to reflect local conditions. Courtesy of Duany Plater-Zyberk & Company.

A New Normative Theory

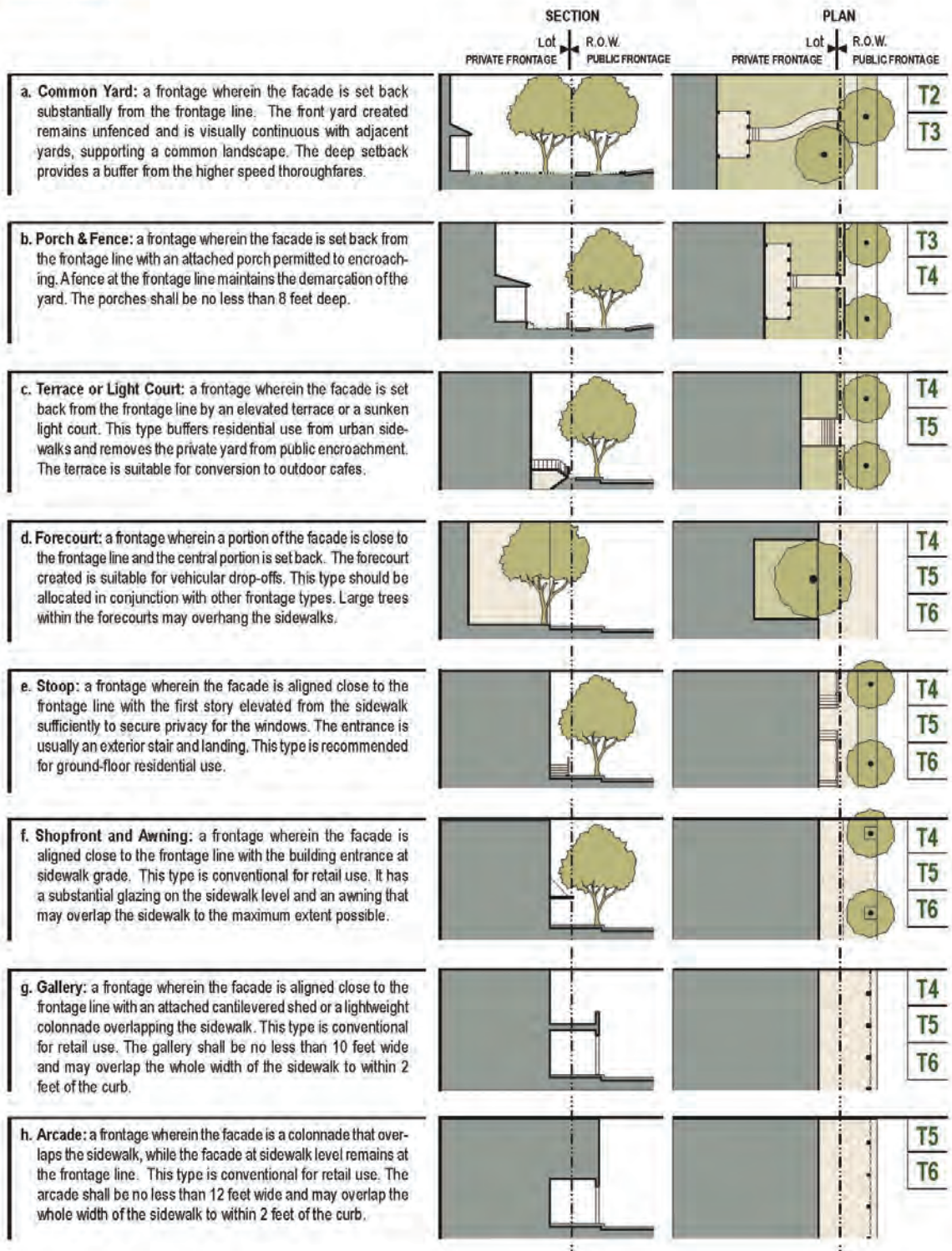
The contemporary American landscape has evolved from a tapestry of vast natural areas and agricultural lands dotted with small hamlets, villages, towns and cities into a world composed largely of segregated zones, into which are placed mass-produced real estate products linked by an expansive automobile-oriented infrastructure. As Dolores Hayden observed in *A Field Guide to Sprawl*, "Words such as city, suburb and countryside no longer capture the reality of real estate development in the United States."[10]

Through the years, there has been no shortage of theories, concepts and studies examining the American landscape for what it is. The literature ranges from the perceptive work of William Whyte, who first coined the term "sprawl" in the 1950s; to Robert Venturi and Denise Scott-Brown's embrace of the common commercial strip in *Learning from Las Vegas*; to J.B. Jackson's writings on "vernacular landscapes"; to all manner of research attempting to define the "costs of sprawl."[11] However, Kevin Lynch once referred to such work as "status quo" theory, because it merely described the world as it is (or was). By contrast, "normative" theories have the power to describe the world as it ought to be.[12]

What has been lacking is a more holistic, regional framework based on *character of place*. Such a new norma-

SMARTCODE
municipality

TABLE 7 PRIVATE FRONTAGES



a. **Common Yard:** a frontage wherein the facade is set back substantially from the frontage line. The front yard created remains unfenced and is visually continuous with adjacent yards, supporting a common landscape. The deep setback provides a buffer from the higher speed thoroughfares.	T2 T3
b. **Porch & Fence:** a frontage wherein the facade is set back from the frontage line with an attached porch permitted to encroaching. A fence at the frontage line maintains the demarcation of the yard. The porches shall be no less than 8 feet deep.	T3 T4
c. **Terrace or Light Court:** a frontage wherein the facade is set back from the frontage line by an elevated terrace or a sunken light court. This type buffers residential use from urban sidewalks and removes the private yard from public encroachment. The terrace is suitable for conversion to outdoor cafes.	T4 T5
d. **Forecourt:** a frontage wherein a portion of the facade is close to the frontage line and the central portion is set back. The forecourt created is suitable for vehicular drop-offs. This type should be allocated in conjunction with other frontage types. Large trees within the forecourts may overhang the sidewalks.	T4 T5 T6
e. **Stoop:** a frontage wherein the facade is aligned close to the frontage line with the first story elevated from the sidewalk sufficiently to secure privacy for the windows. The entrance is usually an exterior stair and landing. This type is recommended for ground-floor residential use.	T4 T5 T6
f. **Shopfront and Awning:** a frontage wherein the facade is aligned close to the frontage line with the building entrance at sidewalk grade. This type is conventional for retail use. It has a substantial glazing on the sidewalk level and an awning that may overlap the sidewalk to the maximum extent possible.	T4 T5 T6
g. **Gallery:** a frontage wherein the facade is aligned close to the frontage line with an attached cantilevered shed or a lightweight colonnade overlapping the sidewalk. This type is conventional for retail use. The gallery shall be no less than 10 feet wide and may overlap the whole width of the sidewalk to within 2 feet of the curb.	T4 T5 T6
h. **Arcade:** a frontage wherein the facade is a colonnade that overlaps the sidewalk, while the facade at sidewalk level remains at the frontage line. This type is conventional for retail use. The arcade shall be no less than 12 feet wide and may overlap the whole width of the sidewalk to within 2 feet of the curb.	T5 T6

tive theory would transcend and guide more technocratically defined controls governing such concerns as land use zones, floor area ratios, open space standards, environmental regulations, and roadway carrying capacities. The problem hasn't simply been the lack of distinctive rural and urban (normative) models, but the relentless and often insidious grafting of suburban types—building-lot configurations, frontages, street types, landscaping, public works, bland open spaces—onto urban and rural settings. This has fueled the destruction of the city and the countryside as well as frustrated the construction of new urban places. A normative theory based on character of place could offer people a vision they can better understand and invest themselves emotionally in. The rural-to-urban transect proposes one such theory.

As the images accompanying this article show, a transect is a way of locating and understanding a variety of different types of human settlement within a comprehensive web of natural and human habitats. As a historical concept, its origins have been noted in work by Patrick Geddes, Ian McHarg, and Christopher Alexander.[13] And Douglas Duany, a landscape architect credited with introducing the idea to the New Urbanism movement, has traced the transect even further back to such eighteenth-century geographers and naturalists as Alexander von Humbolt. The *SmartCode Manual*, developed by Duany Plater-Zyberk and Company, describes the transect in these terms:

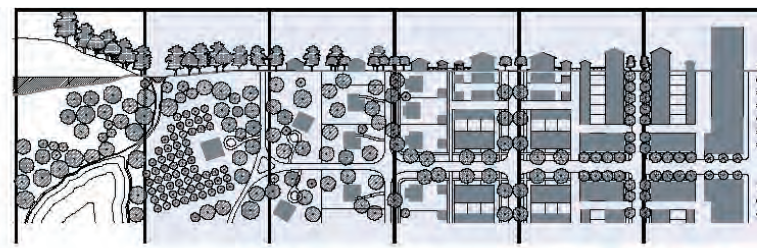
> *A transect, in its origins (Von Humboldt 1790), is a geographical cross-section of a region used to reveal a sequence of environments. Originally, it was used to analyze natural ecologies, showing varying characteristics through different zones such as shores, wetlands, plains, and uplands. For human environments, such a cross-section can be used to identify a set of habitats that vary by their level and intensity of urban character, a continuum that ranges from rural to urban. In Transect planning, this range of environments is the basis for organizing the components of urbanization: building, lot, land use, street, and all of the other physical elements of the human habitat.*[14]



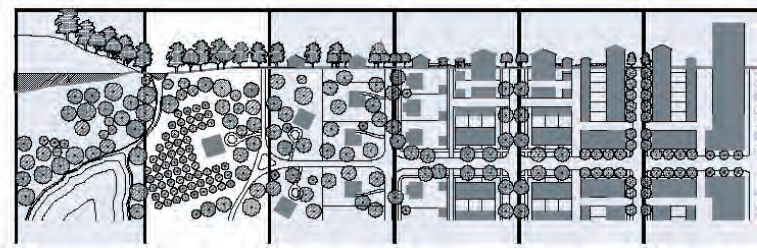
Right: Conditions typical of development over six transect zones. This succession of drawings may be understood as either a spatial (entering a city) or temporal (settlement maturation) progression. Drawing by Eusebio Azcue for Duany Plater-Zyberk & Company.

Opposite: Transect zone definitions. Drawing courtesy of Duany Plater-Zyberk & Company.

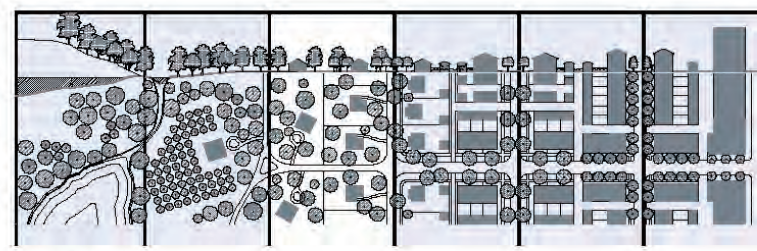
T1 THE NATURAL ZONE consists of lands approximating or reverting to a wilderness condition, including lands unsuitable for settlement due to topography, hydrology or vegetation.



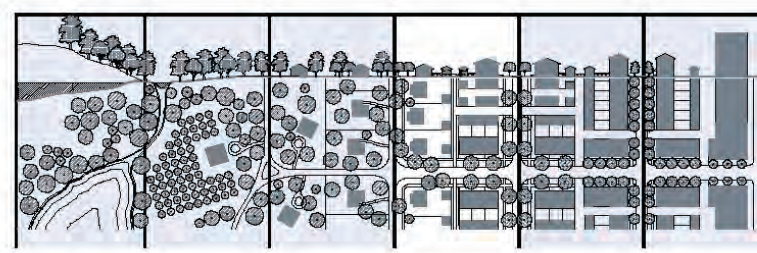
T2 THE RURAL ZONE consists of lands in open or cultivated state or sparsely settled. These include woodland, agricultural lands, grasslands and irrigable deserts.



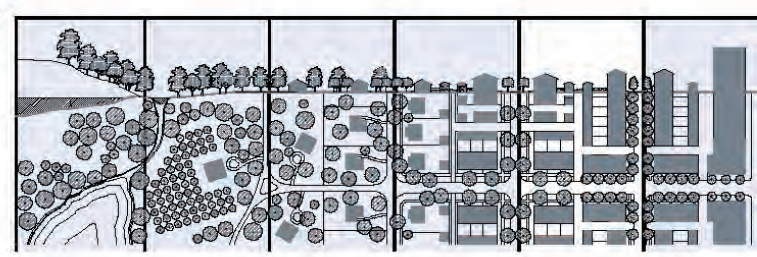
T3 THE SUB-URBAN ZONE, consists of low density suburban residential areas, differing by allowing home occupations. Planting is naturalistic with setbacks relatively deep. Blocks may be large and the roads irregular to accommodate natural conditions.



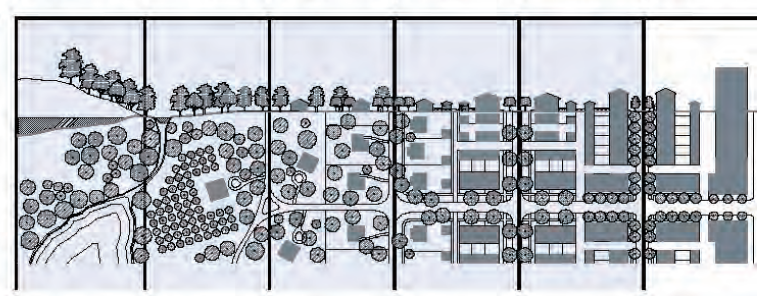
T4 THE GENERAL URBAN ZONE consists of a mixed-use but primarily residential urban fabric. It has a wide range of building types: single, sideyard, and rowhouses. Setbacks and landscaping are variable. Streets typically define medium-sized blocks.



T5 THE URBAN CENTER ZONE consists of higher density mixed-use building types that accommodate retail, offices, rowhouses and apartments. It has a tight network of streets, with wide sidewalks, steady street tree planting and buildings set close to the frontages.



T6 THE URBAN CORE ZONE consists of the highest density, with the greatest variety of uses, and civic buildings of regional importance. It may have larger blocks; streets have steady street tree planting and buildings set close to the frontages.





The transect is important within the New Urbanism movement because it provides a regional framework for planning that encompasses a fuller spectrum of rural, suburban and urban environments. Although the Charter for the New Urbanism includes regional principles, the primary focus of New Urbanist practice has been at the scale of traditional neighborhood developments (TNDs) and transit-oriented developments (TODs). Early regional planning by New Urbanists was generally organized according to environmental and transportation systems that essentially allowed the mapping of locations for new urban nodes. The transect encompasses a more complete range of human settlement types, addressing relationships between urban, suburban and rural areas, and attempting to define the basic physical characteristics that differentiate them.

The transect reflects recognition that a sustainable future must embody an interrelated continuum of natural and human habitats—natural, rural, suburban and urban—with differing settlement densities and opportunities for social encounter and human activity. In particular, it attempts to distill general physical characteristics of urbanism that have existed for 5,000 years—the hamlet, village, urban neighborhood, town, and city—in relation to each other and the natural world.

It is important to distinguish the theory of the transect from its practical applications, some of which are highlighted in graphics accompanying this article and in the articles that follow. It should also be emphasized that the rural-to-urban transect presently embraced by New Urbanists in the United States represents a transect, not *the* transect.[15] Very different transects could be conceived for cultures and geographic regions where human settlement patterns, and local examples of what constitutes natural, rural, suburban and urban character, have evolved differently.

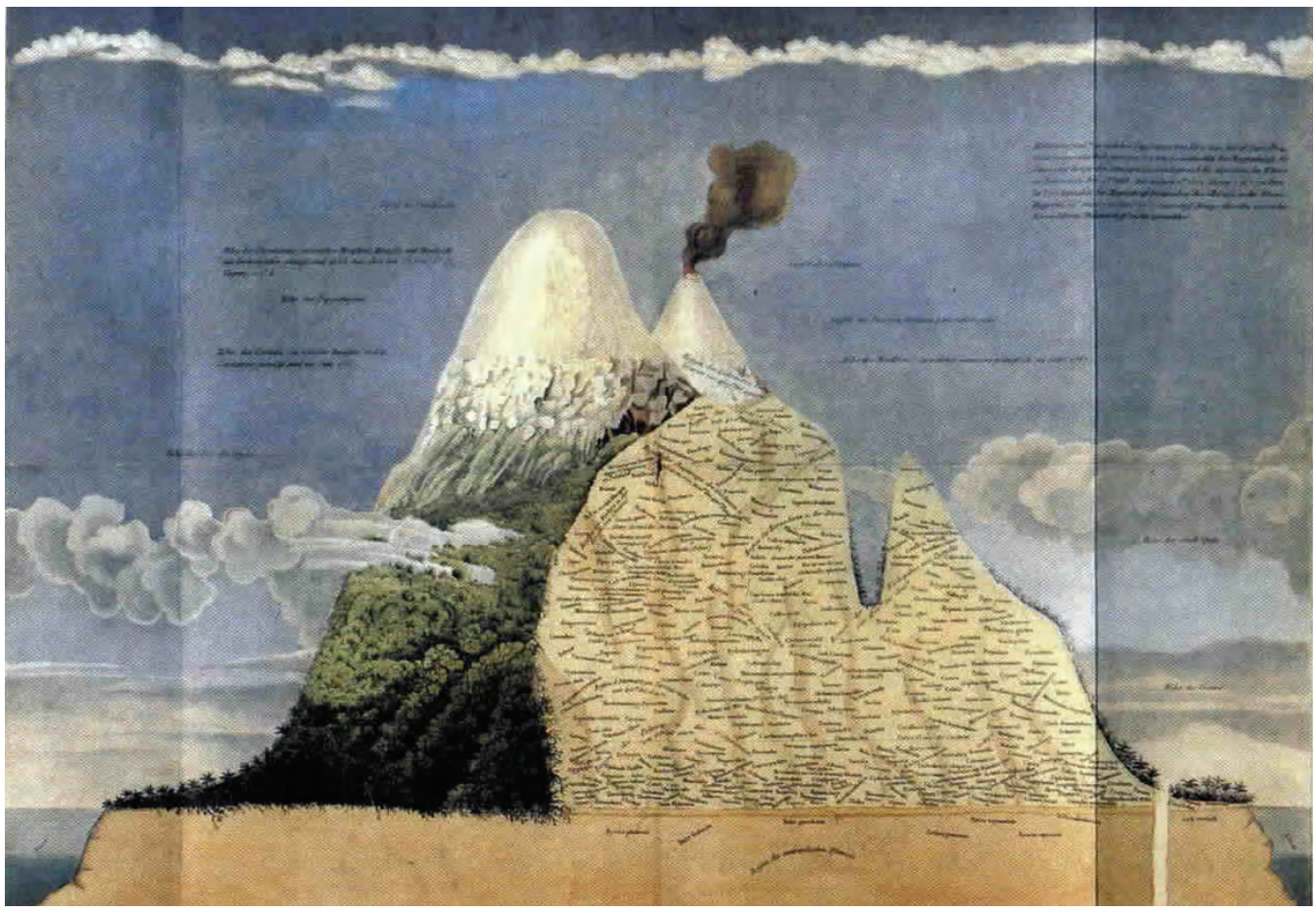
Within New Urbanism, the use and view of the transect continues to evolve—as does the degree to which individual New Urbanists incorporate it into their thought and work. The most detailed application of the transect within New Urbanism can be found in Duany Plater-Zyberk's SmartCode. This "form-based" model zoning code originated as a proprietary alternative to "use-based" zoning practice. It is now distributed as "freeware" via the Internet. Where the transect is an overall theory of human settlement, the SmartCode represents one application of it that is intended to guide the building of American cities and towns.

Apart from the SmartCode, a wide variety of planners, urban designers, transportation planners, and architects—including many who do not identify themselves as New Urbanists—now use the ideas of the transect on either an informal basis or as a formal framework to facilitate community planning, design regulating plans, or organize typologies of streets, buildings, open spaces, and other aspects of the physical environment. In transportation, for example, the transect is being applied to establish a more context-based framework for the design of urban thoroughfares.[16] And in land use planning, where there is now widespread interest in the potential of form-based coding as an alternative to use-based zoning, there are now dozens of firms creating their own model codes that reference the transect but are distinct from the SmartCode.[17]

Of Places, Theories of Places, and the Practice of Place Making

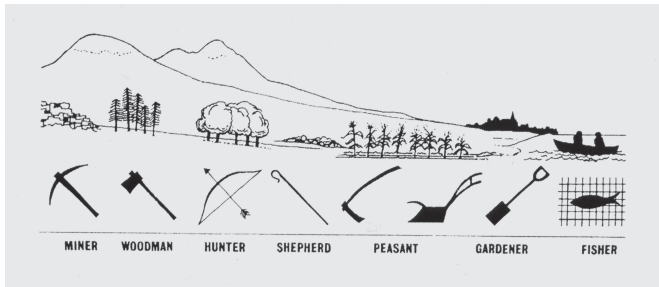
The transect has been proposed as a prism for analyzing the degree of urbanity of everything from building frontages to lampposts, street trees, and stores—and has even been applied to create humorous rural-to-urban transects of hair styles and shoes. Generally, the theory is represented graphically through a simplified typology of "transect zones." The transect most widely used by New Urbanists divides the human environment into six such zones, from very rural, to sub-urban, to urban. The capital letter T

Above: The general transect diagram may be calibrated to local forms and conditions, as in this example from Washington, D.C. Drawing by Dhiru Thadani for Ayers-Saint-Gross.



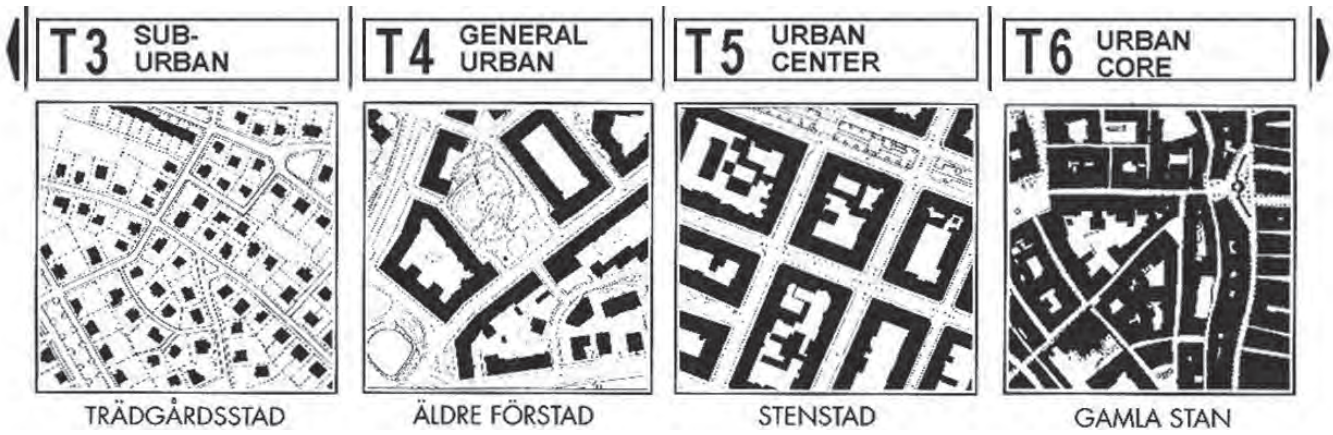
(for "transect zone") and a sequence of numbers provide a shorthand for referring to these areas: T1–Natural Zone, T2-Rural Zone, T3-Sub-Urban Zone, etc.[18] What distinguishes the physical character of each of these "immersive" settings is the manner in which everything—e.g., building types, heights, and setbacks; open spaces; the character of streets, alleys and passages; the design of street lighting, landscaping, trees, and street furniture—reinforces a certain overall physical character of place.[19]

For proponents, the attractiveness of the transect lies in its ability to present a simple and concise continuum of settlement types that can be employed to sort out rural, suburban and urban characteristics. Yet this very simplicity has also been singled out as one of its principal weaknesses. For example, critics typically object to the implication there must always be a smooth gradient of settlement patterns from rural to urban and from low, to mid-, to high densities. But this is not, in fact, a tenet of transect theory. The



Above: The first transect was conceived by Ferdnand Von Humboldt in 1793. Vertically exaggerated, it was taken across the southern tip of South America from the Atlantic to the Pacific, and included notations related to the surface, the subsurface, and the atmosphere. However, it records only natural phenomenon—nothing of human habitation appears.

Below: A century later, Scotsman Patrick Geddes drew the "valley section" from a ridgeline to a shoreline. Geddes's transect was the first to show the human presence associated with natural conditions, but typical of the nineteenth century, it presented this in exclusively exploitative terms.



theory specifically allows for the juxtaposition of different zones. Adjacencies such as between the residential neighborhoods of Coral Gables, Florida, and that city's downtown do not violate transect principles. Neither would the presence of a large natural area adjacent to a downtown. Indeed, such dramatic juxtapositions do occur in the case of Manhattan's Central Park, Philadelphia's Fairmont Park, and Rock Creek Park in Washington, D.C. Generally speaking, in terms of developing a plan for a region, juxtapositions of transect zones will create fewer problems than lack of consistency within a zone or an overall lack of variety of zones.

Another common criticism of the New Urbanist transect involves the relatively small number of zones into which it attempts to order a complete range of settlement types. In fact, its six conceptual transect zones were conceived as a way to *expand* the range of settlement types and satisfy a broader range of residential preferences than are available in today's climate of bland homogeneity.

As a typology of varying generalized conditions, the transect also parallels Sidney Brower's research on residential preferences. Brower has distilled some 33 qualities associated with broad concepts of ambience, engagement and choicefulness into four residential neighborhood types.[20] The four types are "centers," identified as denser neighborhoods associated with city living; "residential partnerships," similar in quality to conventional suburban subdivisions, and representing exclusive, homogeneous, family-directed neighborhoods; "small towns," closest in character to traditional towns and villages; and "retreats," including rural retreats, but also encompassing gated communities and condominium/apartment complexes.

Ironically, a third concern with the New Urbanist transect—quite opposite to the first two—is that its zones are *too* fine-grained and specific. In fact, early versions of the transect focused primarily on three general conditions: the urban edge, the general (as in "general urban neighborhood condition"), and the center. Those who prefer this typology believe it provides a looser framework that can potentially be applied within a single block. They argue that the more detailed the transect zone definitions become, the more problematic they will be for describing the complexity of actual cities.

While many of these criticisms contain elements of truth, they obscure one of the real strengths of the theory. Transect theory aims to establish a dialogue between an overall framework for regional planning and the use of locally derived design forms. Regardless of the number of zones delineated, transect theory always calls for a calibration of general ideas about rural, suburban and urban environments to reflect specific local and regional differences. A "General Urban Zone" in Louisville is not expected to resemble the same zone in Chicago or Miami. Differences in the extent to which mixed uses are present, varying combinations of building types, and local concerns for setbacks, landscaping and architecture are all anticipated. Thus, unlike conventional use-based zoning, the transect model requires research into regional architectural and urban forms, which can then be incorporated into more place-based regulations

Above: This context-based calibration of the transect comes from the new code for the city of Stockholm. The code is unusual because it proposes that each zone be infilled in the character of the existing urbanism, thus controlling for an architecture of place rather than time. Peter Elmlund and Charles C. Bohl provide a more detailed discussion of the application of transect ideas to urban life in Sweden in their article on pp. 26-29. Drawing courtesy of Duany Plater-Zyberk & Company.

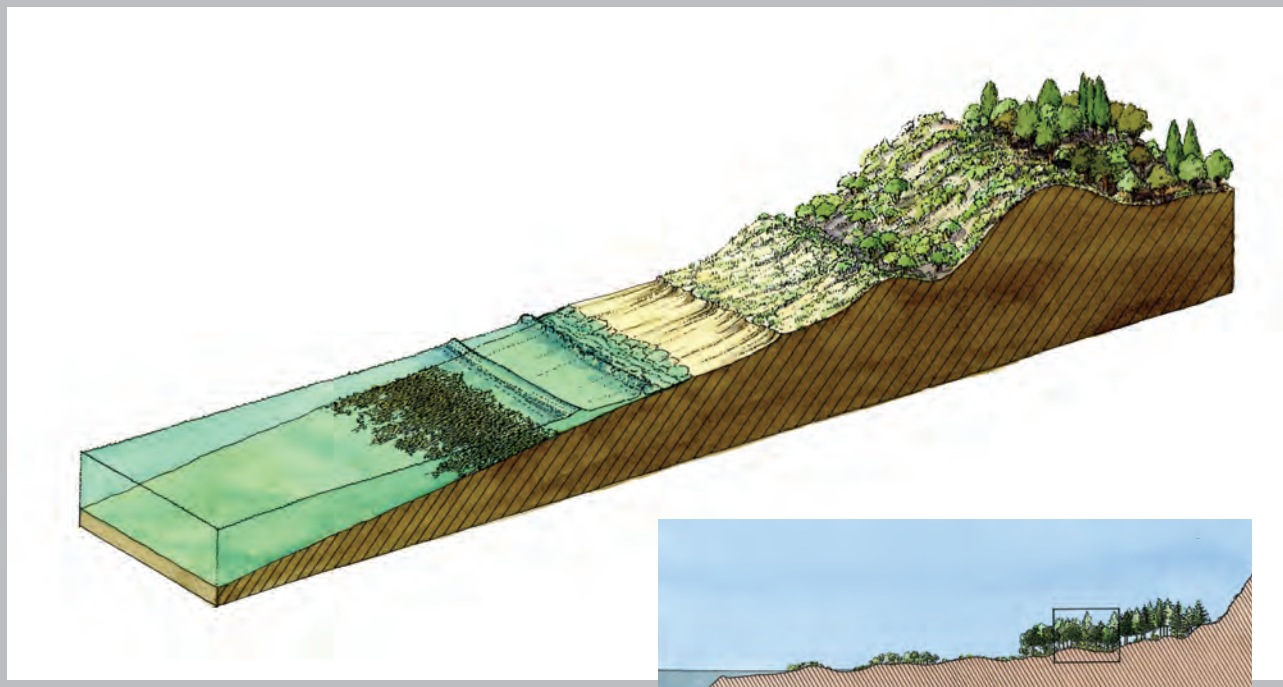


Concerns for Complexity

The transect has also been criticized for its failure to account for the complexity of places, particularly the complexity of historic villages, towns and cities. This is the critical perspective taken by Jaime Correa's article here. Correa uses examples of "transect violations" from European, Islamic, and Latin American cities to show how exceptions may embody the rule in terms of the cultural distinctiveness and historical evolution of settlements.

One cannot disagree with Correa's central point, that transect theory cannot prescribe or predict the complete variety and complexity of historic cities, developed over centuries. However, it is also true that recognizable common underlying structures may exist among places in such cities, and between the more rural, suburban and urban places of a particular region and culture. The desire to understand the formal basis of such similarities and differences is also not unique to the transect. Indeed, throughout history, from Aristotle to A.E.J. Morris, there have been many attempts to propose general principles of built form, and theorists have tried to describe the qualities of different types of places.[21]

Above: Older cities always manifest a variation of the transect; only recently have such distinctions been lost. This matrix of photos illustrates the typical character of urban zones—from T-3 sub-urban to T-6 core—in four American cities. Compilations such as these can show both local patterns and typological correlations between cities. Courtesy of Duany Plater-Zyberk & Company.



Nature and the City

Analysis by transect was first used by geographers and naturalists to describe and understand the workings of natural systems, including human habitats. In this spirit, in addition to providing a place-based approach to planning regulation, the rural-to-urban transect aims to better integrate environmentalist and urbanist values.

Urbanists often argue that well-meaning environmental regulations hinder the dense, contiguous form of traditional towns and cities, causing development to spread out over greater areas. But the relatively dense cities and towns urbanists advocate may conflict with environmental advocacy for uncompromised riparian corridors and animal habitats in even the densest human settlements. Environmentalists also speak of a need to "green the city"—which urbanists worry will damage the pedestrian continuity associated with successful urbanism.

In general, urbanists believe the integrity of human settlements should be given equal standing with that of the natural world. They point out that environmentalist positions and current regulations both would preclude the building of a new Paris, Rome, Chicago, New York, or Charleston. Environmentalists, on the other hand, believe that human settlements must conform to natural ecosystems to function correctly. They argue that cities must incorporate green strategies and technologies to reduce environmental impacts and improve the quality of life.

Although many people take positions between the extremes, new tools are needed to reconcile these differences. By considering urban and environmental values on a regional basis, transect-based planning may be a step forward in this area. Its advocates argue that by reducing the impact of sprawl, it may enable both dense human settlement and healthy environmental performance. It remains to be seen how far the opposing views can be reconciled in practice, however.

Both sides would benefit from studies of older, walkable cities such as Boston. The parks and natural areas of Boston's historic Emerald Necklace once reinforced important environmental systems. More recently, regional efforts to encourage urban density have also begun to restore the health of the Charles River, Boston Harbor, and Massachusetts Bay. Increased urban character need not conflict with improved environmental quality.







Above: In ecological analysis, the transect may be used to understand how physical and biological systems interact to create living environments. Ian McHarg's *Design with Nature* (1963) used this technique to describe the eco-zones of a typical stretch of land from beach to inland bay. This drawing by Duany Plater-Zyberk & Company is an axonometric interpretation of McHarg's original.
Below: The transect may also be used to generate detailed environmental assessment. A dissect (left) provides a description of typical conditions on, below, and above the surface in a specific eco-zone. A quadrat (right) allows quantification of all flora and fauna within a normative area. Similar techniques may be used to understand the character of urban districts.

Unlike many of these purely descriptive efforts, however, what Correa and similarly minded critics find most troublesome is the use of such descriptive typologies to guide the shaping of actual new communities and regions. They argue that, in this role, the transect would "replace the inefficiencies of one system with the promises of another with similar consequences." This critique (a potential concern for any proposed system), however, fails to engage the system that is presently doing so much harm. Place making and community building, at least in the United States, are currently regulated by coding mechanisms. Bringing positive change and reforming the current system will require effective alternatives. Further, to be legally defensible, an effort must be made to coordinate specific proposals for change with an underlying theory.

Transect theory clearly attempts to occupy a difficult position. As a new normative theory, it is variously criticized as too complex or not complex enough; too much like conventional zoning or not similar enough to underpin a legally defensible system. Others have embraced the transect as a theoretical framework, but maintained that the same results can be achieved using a more transparent terminology that does not resort to "T-zones." Such simplicity and transparency, however, have never been the hallmarks of planning codes and regulations.

One only has to examine the 227 pages of code, manual and appendices in version 8.0 of the SmartCode to see how difficult it is to move from the simplicity of the transect as a theory to actual code writing. As the transect is extrapolated into model codes, and as these are adapted for use at the urban and regional levels, it is natural that complexity will increase. For example, the SmartCode already distinguishes between three "plan types," seven "sector types," and four "community types"—in addition to the six transect zones, specialized districts, and separate guidelines for civic spaces and buildings. A close look at the simplified drawings of the six primary zones themselves will also reveal that these have continued to evolve so that two alternate conditions can now be seen within each zone except the T1 Natural Zone. These were developed, in part, to illustrate conceptual transitions from one zone to the next.

As a variety of form-based codes have been created by other community-building professions, debate has also ensued over which element (e.g., transect zones, street types, frontage types, lot types, etc.) should control the others. Similar debate has emerged concerning the significant differences encountered in applying transect-based approaches to new neighborhoods and towns versus existing cities. As one practitioner, Kevin Klinkenberg, noted recently:

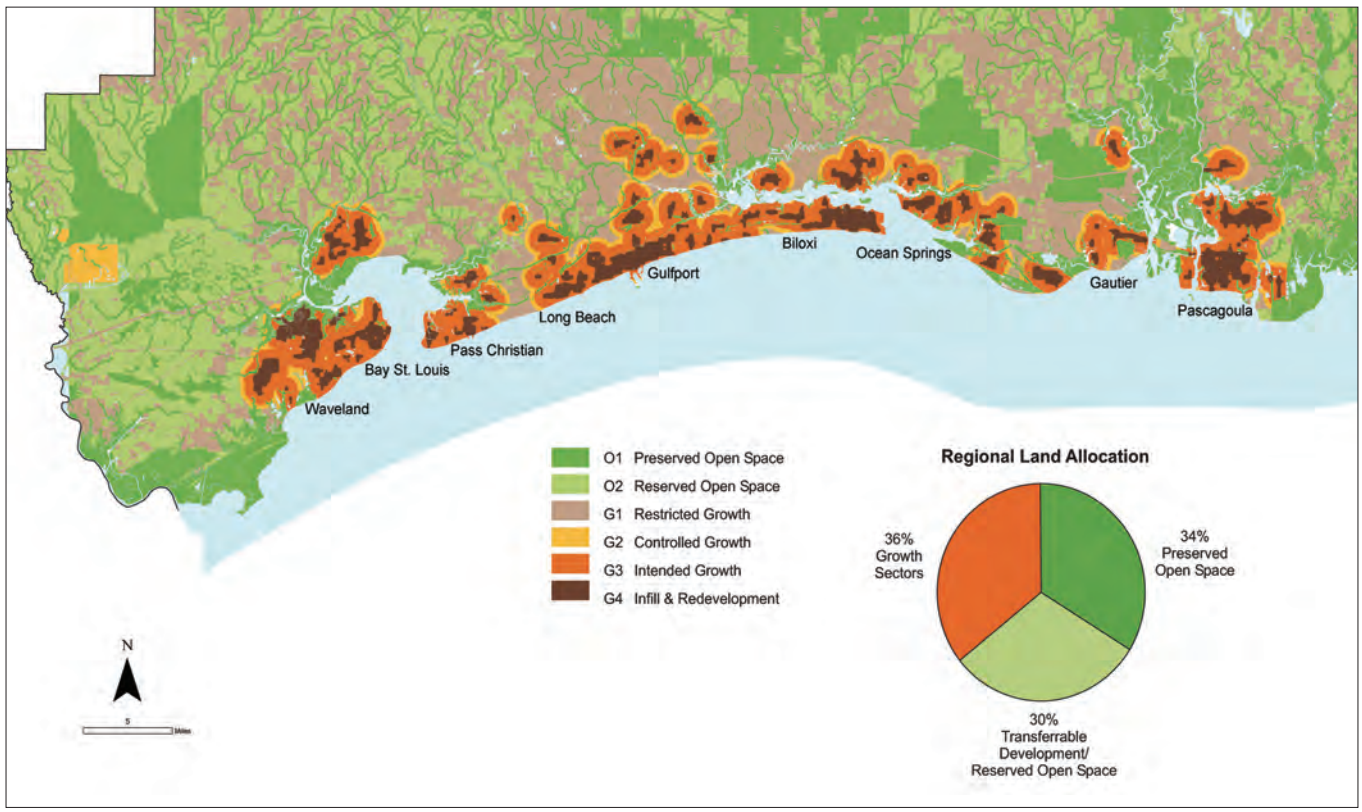
> *The problem I'm finding is: these tools, while perhaps getting us 80 percent of the way there, are not yet sophisticated enough to deal with the planning issues of large, contiguous areas of urbanism, especially in our older cities. The instruments seem not nuanced enough to plan for these environments, and their multiplicity of urban design issues. The Transect and SmartCode are exceptional for dealing with small towns, TND's, and smaller cities. But for the cores of our larger metropolitan areas, we're not really there yet. For example, a one square mile area of T5-Urban Center does not work in any way similar to a T5-Urban Center main street in a small town or TND.*[22]

Differences of opinion also exist within transect-based planning circles concerning the treatment of single-use areas. The transect typology does explicitly provide for single-use, special purpose areas ("districts") such as institutional campuses, airports, and heavy industrial zones. However, New Urbanists have long debated whether single-use residential subdivisions, office parks, and shopping centers should be included in the T3-Sub-urban Zone, considered the "bread-and-butter of American urbanism." As currently defined, the New Urbanist transect excludes these forms.[23] In contrast to large-lot, single-use, automobile-oriented subdivisions with very little connectivity, the New Urbanist transect defines the T3 zone as encompassing walkable, relatively compact, primarily residential single-family neighborhoods where other uses are also allowed. Thus, even though conventional single-use areas may be recognized where they exist, the implication is they will evolve over time into walkable neighborhoods that incorporate a mix of housing types and uses.

Toward a Culture of Good Place Making

The question remains whether any systematic approach to regulating place making and community building is capable of producing something close to "the good city." The excessive legal, technical and administrative constraints on place making and community building present a challenge, if not a crisis, for our generation's capability to build more livable, beautiful, and enduring communities.

The ideal has perhaps been articulated in Christopher Alexander's opus, *The Nature of Order*. This four-volume study, which extends his work on pattern languages, proposes a generative model of place making that will "allow anyone, and any group of people, to create beautiful, functional, meaningful places."[24] Perhaps the transect is just one step along this much longer path away from the



technocratic regulation of community design toward what Alexander envisions as a bottom-up model in which a culture of good place making is reborn, and where citizens directly participate in the shaping of the places in which they live, work, and go about their daily lives.

The theory and application of the transect is a work in progress, and is currently the subject of far more extensive discussion and debate than the sampling included here. Ongoing research and debate concerns everything from the establishment of environmental performance measures for transect zones, to the definitions of the zones themselves, to potential connections between transect theory and diverse philosophical traditions such as pragmatism and natural law.

As guest editors, we wish there had been room to include more of this discussion. Future articles might include an extrapolation of David Engwicht's notion of "exchange opportunities," by which a city's value might be measured according to the number and magnitude of potential exchanges, as explored through a transect of places for social encounter.[25] Eliot Allen's propositions for a more fine-grained transect of natural settings, which are currently reduced to T1-Natural and T2-Rural zones, also represents a rich topic for further study. A more explicit exposition on architecture and the transect, as briefly encountered here in the article by Gabriele Tagliaventi, would also be extremely useful.[26] The nuances of the transect in high-density cities for the purposes of form-based coding is also in need of further study. And, as the accompanying sidebar highlights, an in-depth piece might explore ways to use the transect to further resolve urbanist and environmentalist perspectives, allow reconsideration of relationships between built and natural environments, and reintegrate cities and towns within larger ecosystems. We hope the articles here open up a path for future inquiry and debate on these and many other place-making and community-building topics. We hope such debate will appear in future issues of *Places*.

According to the demographers, we have been pre-

Above: As a fractal, the transect can operate at the scale of architecture, the city, or the region. The Criterion system of transect analysis devised by Eliot Allen factors dozens of metrics provided by GIS to determine six regional zones. This system was used to create a regional transect for post-Hurricane Katrina rebuilding of the Mississippi Coast. Drawing courtesy of Criterion Planners.

sented with the opportunity to rebuild America. Unfortunately, if we continue to use the existing web of codes, standards and regulations that govern the development and redevelopment of our communities, we are doomed to continue building in unsustainable ways. If change is to come, alternative regulatory tools will need to be developed based on an entirely different set of desired outcomes. In particular, a new framework must emerge that will enable a greater variety and quality of places to be preserved and built. The rural-to-urban transect represents one alternative framework to guide such change.

Notes

1. James Howard Kunstler, *The Geography of Nowhere* (New York: Simon & Schuster, 1993).

2. Arthur C. Nelson, *Toward a New Metropolis: The Opportunity to Rebuild America* (Washington, D.C.: The Brookings Institution Metropolitan Policy Program, 2004).

3. Andrés Duany, "Introduction to the Special Issue: The Transect," *Journal of Urban Design*, Vol. 7, No. 3 (2002), pp. 251-60.

4. Rolf Pendall found clear links between bias in existing land use controls favoring conventional patterns and the development of sprawl: Pendall, "Do Land Use Controls Cause Sprawl?" *Environment and Planning B: Planning and Design*, Vol. 26, No. 4 (1999), pp. 555-71. Emily Talen and Gerit Knapp's study of planning regulations in Illinois found de facto prohibitions against more compact, mixed-use, walkable neighborhood design: see Talen and Knaap, "The implementation of Smart Growth Principles: An Empirical Study of Land Use Regulation in Illinois," *Annual Conference of the Association of Collegiate Schools of Planning* (Atlanta, GA, 2000).

5. See Eran Ben-Joseph, *The Code of the City: Standards and the Hidden Language of Place Making* (Cambridge, MA: MIT Press, 2005); Eran Ben-Joseph and Terry S. Szold, eds., *Regulating Place: Standards and the Shaping of Urban America* (New York: Routledge, 2005); and Paula M. Craighead, ed., *The Hidden Design in Land Use Ordinances* (Maine Arts Commission and the University of Southern Maine Design Arts Project, 1991).

6. Christopher B. Leinberger, "Retrofitting Real Estate Finance: Alternatives to the Nineteen Standard Product Types," *Places*, Vol. 17, No. 2 (2005), pp. 24-29.

7. Ibid.

8. Benton MacKaye, *Expedition Nine: A Return to a Region* (Washington, D.C.: The Wilderness Society, 1969). Emphasis added.

9. Nelson, *Toward a New Metropolis*.

10. Dolores Hayden, *A Field Guide to Sprawl* (New York: W.W. Norton & Co., 2004).

11. See William H. Whyte, ed., *The Exploding Metropolis* (Garden City, NY: Doubleday, 1958); Robert Venturi et al., *Learning from Las Vegas: The Forgotten Symbolism of Architectural Form* (Cambridge, MA: MIT Press, 1977); and John Brinckerhoff Jackson, *Discovering the Vernacular Landscape* (New Haven, CN: Yale University Press, 1984).

12. Kevin Lynch, *Good City Form* (Cambridge, MA: MIT Press, 1981).

13. Duany, "Introduction to the Special Issue: The Transect." Also see Andres Duany and Emily Talen, "Transect Planning," *Journal of the American Planning Association*, Vol. 68, No. 3 (2002), pp. 245-66; and Emily Talen, "Help for Urban Planning: The Transect Strategy," *Journal of Urban Design*, Vol. 7, No. 3 (2002), pp. 293-312.

14. Andrés Duany et al., *SmartCode & Manual* (Miami: New Urban Publications, Inc., 2005).

15. The same is true of the work of Christopher Alexander, who presented *a* pattern language, not *the* pattern language.

16. The transect provides the basis for the four context zones in a 221-page report recently published by the Institute of Transportation Engineers. See James M. Daisa et al., "Context Sensitive Solutions in Designing Major Thoroughfares for Walkable Communities" (Washington, D.C.: Institute of Transportation Engineers, 2006).

17. Examples of form-based codes can be found on the Web site for the Form-Based Codes Institute (FBCI) at www.formbasedcodes.org.

18. Early on, a conscious choice was made to choose a designation system that would allow transect-based codes to resemble more conventional ones.

19. As noted by one reviewer of this article, "there are many more ways in which the character of habitat varies than 'from rural to urban' and that the character of place is fundamentally determined by the quality of experience, including social experience that it affords and while these are qualified by the physical they are not determined by it." The authors concur. Potential relationships between physical character and quality of experience are a core subject of environment and behavior research. In contrast to those who would diminish the importance of the physical environment as "physical determinism," however, the authors maintain the essential role that the physical environment plays in *environmental affordance*, through which different configurations and qualities of the physical environment variously enhance or constrain opportunities for different types of activities and meanings.

20. See Sidney N. Brower, *Good Neighborhoods: A Study of In-town and Suburban Residential Environments* (Westport, CT: Praeger Publishers, 1996); and Sidney N. Brower, "The Sectors of the Transect," *Journal of Urban Design*, Vol. 7, No. 3 (2002), pp. 313-20.

21. A.E.J. Morris, *A History of Urban Form: Before the Industrial Revolutions* (New York: John Wiley & Sons, Inc., 1994).

22. Interview with Kevin Klinkenberg, principal, 180 Degrees Design, member of the Form-Based Codes Institute and 2003-2004 Knight Fellow in Community Building.

23. Subdivisions, office parks, shopping centers and other conventional suburban formats are identified within the SmartCode as a list of single-use categories for the purposes of mapping existing conditions, but not for the purposes of plan-making.

24. Christopher Alexander, *The Nature of Order. Book One: The Phenomenon of Life* (New York: Oxford University Press, 2002); *Book Two: The Process of Creating Life* (New York: Oxford University Press, 2002); *Book Three: A Vision of a Living World* (New York: Oxford University Press, 2005); *Book Four: The Luminous Ground* (New York: Oxford University Press, 2004).

25. David Engwicht, *Reclaiming our Cities and Towns: Better Living with Less Traffic* (Gabriola Island: New Society Publishers, 1993).

26. For one example, see Michael Lykoudis and Philip Bess, eds., *Acroterion: The Work of the University of Notre Dame School of Architecture 2004/2005* (Notre Dame, IN: University of Notre Dame School of Architecture, 2005). This presents an

Peter Harnik, Michael Taylor and Ben Welle

From Dumps to Destinations: The Conversion of Landfills to Parks



Projected use of some of the 2,200 acres of currently open land at the site of the former Fresh Kills Landfill on Staten Island, New York. Photo courtesy of the New York City Department of City Planning.

Imagine sun bathing, playing baseball, or flying a kite on top of a huge pile of garbage. Actually, there's no need to imagine—simply head out to Boston's Millennium Park. Fifteen years ago, known as the Gardner Street Landfill, it was a dump—literally. Today its 100 acres host sports fields, playgrounds, an outdoor classroom and amphitheater, six miles of walking and biking trails, and river access. As Mayor Tom Menino stated at its opening December 7, 2000, it is "a place for people of all ages and backgrounds to come for a picnic, a friendly ballgame, or some solitude."

No one has tabulated all the parks and public recreational sites created on old landfills. There are certainly more than 250, and there may well be more than 1,000. They range from the famous, such as Flushing Meadow in New York (site of two World's Fairs) and the appropriately named Mt. Trashmore in Virginia Beach, to relatively obscure inner-city basketball and tennis courts, suburban golf courses, and soccer fields. One converted landfill in Berkeley is home to an international kite festival; another in Albuquerque hosts a celebration of hot-air balloons.

It would be an overstatement to say that some of the nation's best urban parks have been created from landfills, or even that capped landfills automatically make terrific parks. But in a time of severe urban space and resource constraints, closed landfills present excellent new park sites for three reasons—size, location and cost. Communities from coast to coast have been jumping at the chance to convert them.

An Urban Mission

The San Francisco-based Trust for Public Land (TPL) has developed a particular interest in old landfills. The nation's second largest land

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Known contaminated areas of Mabel Davis Park in Austin, Texas. The park was opened in 1979 over parts of an old landfill. In March 2000 city workers discovered elevated levels of lead in the park's soil. Further investigation revealed elevated levels of pesticides. Map courtesy of the City of Austin.

conservation group (after the Nature Conservancy), TPL approaches its land-for-people mission in two ways. In rural and suburban areas TPL may buy virgin land for park agencies to preserve it from development. But in urban areas its most valuable role may be to acquire previously used land and help communities recycle it for new public purposes.

TPL's roster of urban land reclamation and reuse projects today includes old rail yards in Los Angeles and Santa Fe, abandoned piers and docks in Brooklyn and Oakland, decayed factory sites in Chicago and Atlanta, an abandoned gas station in Boston, and an oil storage depot in Seattle. As people across the country rediscover the benefits of urban living, and as older suburban areas become more built up, old landfill sites become increasingly valuable and offer similar potential.

To study the complexities of this and other issues affecting urban green spaces, TPL has created an internal research arm, the Center for City Park Excellence (CCPE). Since 2003, the center has conducted in-depth research on a range of topics from dog parks to the design of skateboard facilities; it has analyzed how park agency budgets affect park maintenance and use; and it has developed new methodologies for counting the number of park users and understanding their various needs.

Based on CCPE research, TPL has also launched a national campaign to promote the conversion of landfills into parks. Landfills are so appropriate for conversion to parks, TPL believes, that recreation planners and landscape architects should not wait until they are closed to get involved. New landfills could even be pre-envisioned and pre-designed as parks before the first bag of trash is ever disposed.

The Earliest Landfill Parks

Landfill parks go back to at least 1916 (many years before the word "landfill" was coined), when Seattle created Rainier Playfield from its former Rainier Dump. In 1935 another conversion transformed that city's 62-acre Miller Street Dump into a portion of the now-famous Washington Park Arboretum. The following year, New York closed the putrid Corona Dumps—famously called the "Valley of Ashes" by F. Scott Fitzgerald in *The Great Gatsby*—and began preparing the land for construction of the 1939 World's Fair.

Following World War II, the volume of trash and the number of landfills in America mushroomed—as



did the number that became filled to capacity. The U.S. Environmental Protection Agency (EPA) today estimates that as many as 3,500 landfills have closed since 1991. The number from earlier years has never been tracked.

In theory, turning a landfill into a park transforms a noxious liability into an attractive asset. As a "sustainable" recycling of urban assets, in many cases it works beautifully. Even a superficial investigation of American big cities by CCPE reveals more than 4,500 acres of successful landfill parks.

However, compared to a "greenfield" site, an old landfill almost always requires more time and planning to turn into a park. Indeed, complex issues of toxicity, liability, and ground settlement often conspire to prevent municipalities and private land conservancies from pursing such projects. But these challenges are not insurmountable. In a similar effort over the last twenty years, the rails-to-trails movement has converted thousands of miles of former railway right-of-way to nature and bike trails.

In the heart of a dense metro area, a former dump may today be one of only a few large, open locations remaining on which to build a new public park. And its conversion may present an opportunity to correct longstanding local patterns of environmental injustice. Moreover, there is a good chance the landfill—which may be as small as dozens of acres or as large as 1,000 or more—will be inexpensive to buy, or free, or possibly come with some supporting funds for maintenance.

There are many financial models on which to base a successful landfill conversion. In Portland, Oregon, the parks department is getting a "free" park with all closure and conversion costs prepaid by the city's solid waste department, which built up a reserve by assessing a per-ton fee on garbage disposed there. In Virginia Beach, the original capping and the 1986 recapping of Mt. Trashmore were paid for by the public works department; only the 2003 recapping—hopefully the last—was financed by the parks department through its capital improvement budget. In Fresno, ownership of the old municipal landfill won't officially be transferred from the public utilities department, but the parks and recreation department will operate a new park there under a management agreement.

A cheap purchase price is important because conversion and main-

Future promenade and barge gardens at the Fresh Kills site, which will now be called Fresh Kills Park. Photo courtesy of the New York City Department of City Planning.



tenance can expensive, even if costs are shared with the former landfill owner/operator. Depending on the age and contents of a landfill, the amount of groundwater or soil contamination present, and the planned new recreational uses, construction costs have ranged from $500,000 for a two-acre site to $30 million for a regional park of more than one hundred acres. Costs further depend on such factors as topography, availability of materials, cover design, and quantity reductions. Overall, CCPE has arrived at a rough average cost for landfill-to-park conversions of around $300,000 per acre.

The south part of Fresh Kills Park will feature restored wetlands as well as hiking and biking trails. Photo courtesy of the New York City Department of City Planning.

Regulations and Resources

The case of fifty-acre Mabel Davis Park indicates some of the difficulties faced by park planners when they attempt to convert landfill sites. Located about four miles south of downtown Austin, Texas, half the park sits atop a landfill that closed in the 1950s. The site was first converted to a park in 1979, before adequate regulations were put in place, and shortly afterwards its covering began to erode and leachate pollution emerged from illegally dumped fertilizer and battery casings.

After years of mounting problems, the city was forced to close the park in 2000 and begin an $8.5-million remediation program. According to Christina Calvery, Project Manager for the Austin Parks and Recreation Department, this meant a comprehensive redesign to bring it up to current EPA standards.

The example highlights the importance of research and regulation. Although the story of Mabel Davis Park ended happily and the park reopened in December 2005, years of pollution followed by costly repairs could have been avoided if illegal dumping had not taken place, and if the conversion had been accomplished in a way that prevented leaching.

Today many new safeguards are in place. And since November 1991 the construction of municipal landfills has been regulated by the Environmental Protection Agency. Federal law further stipulates that, no later than six months after a landfill is closed, an owner/operator must install an approved cap to minimize water infiltration and erosion. This must incorporate an 18-inch clay layer to impede water infiltration and at least 6 inches of vegetated earthen material to prevent erosion of the infiltration



The south portion of the proposed park will also house recreational spaces such as soccer fields. Photo courtesy of the New York City Department of City Planning.

layer. There usually must also be a gas venting layer and a layer of stone or geosynthetic material to keep out burrowing animals.

Federal policy also now requires that the owner/operator maintain the integrity of this cover, monitor groundwater contamination, and manage methane gas and leachate production for thirty years after the landfill is closed. Finally, there is a financial requirement to cover post-closure care as well as clean-up if groundwater contamination occurs.

In some cases government grants or loans may be available to ensure that these obligations are met. In one such case, TPL received a $200,000 EPA grant to assist in capping a two-acre landfill in Providence, R.I., that provided a critical link in the four-mile Woonasquatucket River Greenway. TPL's Daria Ovide says the EPA grant was a significant factor in moving this project forward.

Technical Concerns

Once an adequately designed cap is in place, two significant challenges remain to reusing a landfill as a park: gas production and ground settlement. Landfill gases such as methane, carbon dioxide, ammonia, and hydrogen sulfide are created when buried waste decomposes. Methane may be released for thirty or more years after closure. Indeed, in early parks built on landfills there were occasional stories of picnickers being stunned when a column of flames erupted alongside their barbeque grills.

EPA now requires gas collection systems, but in some cases this gas can be sold to generate revenue. One example is the former St. Johns Landfill, Portland, Oregon's, primary waste disposal site for more than fifty years. In 1991 Portland Metro closed the 240-acre dump, essentially an island of trash within the 2,000-acre Smith-Bybee Wetlands Natural Area, to begin long-term restoration. Today, most of the methane produced by the landfill is piped two miles to heat the lime kiln of a cement company. The revenue, averaging $110,000 per year, helps pay for landfill closure operations.

Ground settlement can also be a difficult problem. Like cereal in a box, municipal landfills settle from 5 to 20 percent over a two- or three-decade period. Such settlement may cause foundations to break and sink, utility and irrigation pipes to burst, roads and paths to crack and heave, light poles to tilt, and sports fields to

crumple. Obviously, if a landfill site is to be converted to a "natural" area, none of this matters. But most recreational reuses require construction of at least trails, if not fields and various types of buildings. And more intensive reuses may require amphitheaters, pro shops, eating and drinking facilities, and meeting rooms.

The only real solution is careful planning. Since waste sits only in "cells" within most landfills, park facilities can still be safely constructed over undisturbed areas of a site, leaving the rest to support grass and shrubbery. For instance, in the current conversion of New York City's gargantuan Fresh Kills landfill, the city proposed building numerous significant structures. According to Planning Department Project Manager Jeffery Sugarman, the challenge was to locate them properly. In the end, this wasn't overwhelmingly difficult since only about 45 percent of the land area had actually been used for waste disposal.

Utility systems can be more of a problem. While flexible electric and telephone cables can be buried within the upper layer of a landfill cover, that doesn't work for rigid gas, water and sewer lines. Irrigation pipe can be especially troublesome. Alternatives to buried irrigation pipe include above-ground watering systems, using grasses that require little or no irrigation, or eliminating active recreation over much of a site.

Careful planning may again be the only real answer. Calvery says much of Mabel Davis Park is now planted only with flowers and grasses native to the Central Texas plains. This reduces the need for irrigation and maintenance, and also limits the possibility that irrigation water will filter through the landfill to create leachate. Recreational areas can still be included in carefully located areas of such a park. It can also be attractively landscaped if trees are planted far enough away from the cover to prevent their roots from puncturing it.

Putting It All Together

With a surfeit of trash, a shortage of urban green space, and improvements in land-conversion technology, the landfills-to-parks movement has a huge future potential. However, much more planning must be undertaken if this resource is to captured to make new public spaces, particularly ones that allow the emergence of new natural areas within cities, or adjacent to them.

Even before the first truckful of garbage is disposed at a new site, careful consideration should be given by solid waste agencies, municipal park departments, and landscape architects to how the site will be converted at the end of its expected life as a dump. For example, the solid-earth "walls" between trash-filled cells could be made thick enough to later support not only underground pipes and conduits but above-ground buildings and structures.

Even without such comprehensive preplanning, however, TPL believes there is great potential for phased conversions at existing landfills. According to this model, older sections could be converted into parkland sooner, on a rolling basis, even as newer areas are still accepting deliveries of waste. Such a program would allow a more natural program of tree and plant growth. The impacts on park users might be mitigated by constructing permanent or temporary berms to screen ongoing landfill operations. And in some cases, phased conversion might even allow on-site environmental education about the reuse process.

Like retail and housing activities, the landfill business is "sprawling" and "big-boxing" in the U.S. today—shifting to gigantic operations that seem ever more dispersed and distant from urban areas. For example, Corpus Christi, Texas, is about to open a 2,000-acre landfill ten miles outside the city, with projections that it won't be filled for one hundred years. Colorado Springs' three landfills have a century's worth of capacity left. Seattle now loads its waste onto trains and ships it over the Cascade Mountains to eastern Washington.

Yet, no matter how distant these dump sites may seem, it is impossible to predict where they will fit into potential patterns of population growth by the twenty-second century. Will today's exurban landfill locations be surrounded by settlement the same way urbanized areas of Manhattan eventually displaced the farms around "distant" Central Park?

Before the U.S. finds itself involved in a broad-scale, seamless landfills-to-parks movement numerous challenges—technological, political and legal—still need to be better understood. As long as urban and suburban land was relatively cheap and available, it made little sense to pursue these. But today many of these cost equations have shifted.

With a three-pronged effort—to design safer, more easily reclaimable dumps, work more closely with community activists, and assure protection from legal liabilities—communities and nonprofit groups like the Trust for Public Land may someday create a vast new network of urban and suburban parks from areas once best considered out of sight and out of mind.

After the Flood

Photos by Lisa Silvestri and Text by Gary Van Zante

"We're all wondering now what will become of New Orleans," Nicolas Lemann wrote in the *New Yorker* a week after the levees were breached last September. "A big American city has never before been entirely emptied of people, and had most of its housing rendered useless, and had all its basic systems fail at once."[1] Three months later the *New York Times* warned, "we are about to lose New Orleans…the moment is upon us when a major American city will die, leaving nothing but a few shells for tourists to visit like a museum."[2] We know now that New Orleans will not die. But six months after Katrina, the city is a very different place, a specter of its former self, a "Smaller Easy." One study, released in March, forecast that in 2008 the city will be smaller by 212,000 residents than pre-Katrina, returning it to its 1890s population.[3]

Many of the neighborhoods devastated by floodwaters were ones few visitors knew—at least before Katrina: New Orleans East, Lakeview, Gentilly, the Ninth Ward, Mid-City, Broadmoor. Photographer Lisa Silvestri is a native of one of these neighborhoods, Gentilly. Although she now practices in New York and has not lived in New Orleans for 26 years, Katrina brought her back to photograph in the floodwaters' wake. Silvestri's photographs document the post-Karina emptying out, the elegiac stillness and Chernobyl-like quiet of the city months after the floodwaters receded. There are no children here, no people at all, no pets, and only one or two cars. The "resistless volume of water" is gone, but the record of its destruction is everywhere. In Gentilly and the other neighborhoods of New Orleans' flood bowl, her photographs give us, poignantly, what historian Grace Seibeling once called "a feel for the current condition of things."[4]

"Life in Gentilly is very peaceful," Binx Bolling observed in Walker Percy's *The Moviegoer*. "Except for the banana plants in the patios and the curlicues of iron on the Walgreen drugstore one would never guess it was part of New Orleans."[5] Binx preferred Gentilly's bungalows to the New Orleans the world knew, the "old-world" French Quarter or the genteel Garden District. In her work, Silvestri has recorded the bungalows and other commonplace structures found out beyond the historic center. "Canal Boulevard" shows a neatly-trimmed and stuccoed house like many others in Mid-City, its iron door and porch grates raised against intruders in a neighborhood that has had more than its share of crime. A normal-looking house, perhaps—but for the high-water marks and the familiar hieroglyphics of search-and-rescue patrol teams sprayed across the front.

Apart from the door awning it has shed, "Lakeview House (1)" shows another structure with an ordinary, everyday appearance, as if its occupants may have just gone to Dorignac's to buy groceries. But on closer inspection we again see a water mark and a creeping mold on the inside blinds. "Gentilly House" shows another such scene. Here animal rescue has passed inspection, and the swamp oaks in the back have lost their leaves, as did most in the inundation. But the house next door is renovated, with new windows and siding, and new leaves are appearing on the tree there. In "Lower Ninth Ward Church" debris has been deposited at the door like an offering, but the flock has not returned. Neither has the owner of the satellite dish clamped to the house next door.

St. Bernard Parish, sacrificed in the famous 1927 Mississippi River flood, was devastated again by Katrina's floodwaters, and in Silvestri's portrait of a house here a family, apparently forced to vacate, has repossessed their home—their waterlogged portrait propped by the door publicly proclaims, "We are here." The armless mannequin in "Lakeview House (2)" provided the photographer some levity in a sullen survey of destruction and displaced lives; but it is enigmatic, too. The sunglasses with missing lens, and the letter—if it is a letter—in the mail slot suggest a return to dailiness. But a look into the darkness of the empty interior says otherwise.

As she photographed, Silvestri thought "where are all these people? They have lost their homes, their family photographs, their recorded history." She began a project to provide portrait sittings without charge to those who had lost family photographs and were committed to staying. "Renee Tervalon in Her Wedding Dress" is one of these, taken in the family house on St. Bernard Avenue, heavily damaged by floodwaters and now stripped to the studs. The portrait is a surrogate for a wedding that could not take place, like many other events for many other families. "Chunks of our souls have been snatched away," Tervalon told the photographer. "It's a horrible desolate thing, to look around this once vibrant place and feel the stillness that permeates our lives."

Notes

1. "In the Ruins," *New Yorker*, September 12, 2005, p. 36.
2. "The Death of an American City," *The New York Times*, December 11, 2005.
3. Kevin F. McCarthy et al., *The Repopulation of New Orleans after Hurricane Katrina* (Santa Monica, CA: Rand Corporation, Gulf States Policy Institute, 2006).
4. Grace Seiberling, "Atget in the Collection of the International Museum of Photography George Eastman House," *Image*, Vol. XXXI, No. 1, p. 2.
5. Walker Percy, *The Moviegoer* (New York: Knopf,

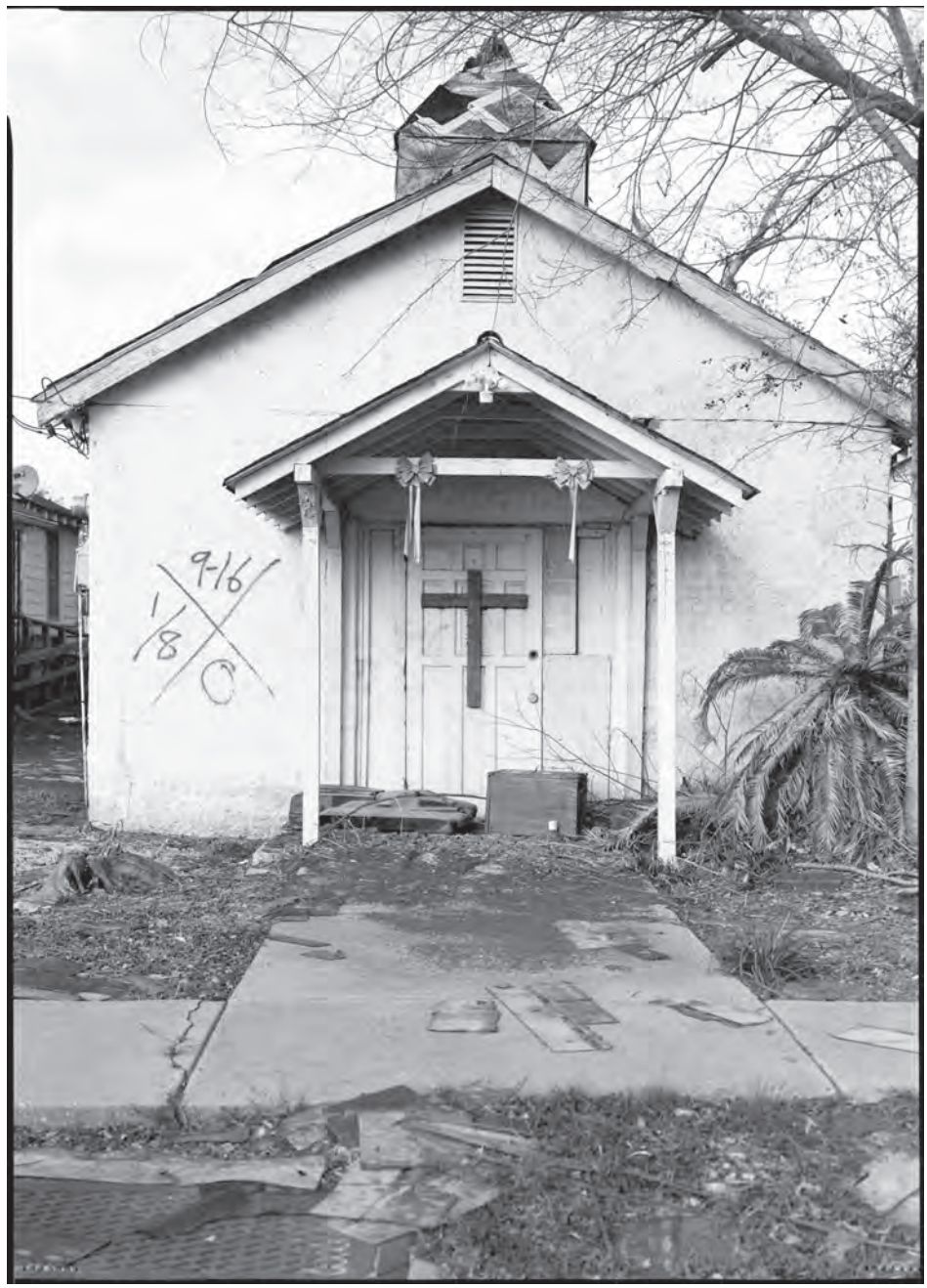


Canal Boulevard





Above: Lakeview House (2); **Opposite:** Lakeview House (1)



Lower Ninth Ward Church



St. Bernard Parish



Gentilly House





Renee Tervalon in Her Wedding Dress

Caring for Places: Imagining Difference

As the pressures of change and growth transform the very conditions of our being, the public realm urgently needs attention. We need to learn to make each project advance the place of which it is a part. There are many to advocate for singular advantage, but often no real voice or measure of extended consequence. The public realm needs publicity.

Articles in the theme section of this issue, guest-edited by Charles C. Bohl with Elizabeth Plater-Zyberk, explore both the differentiation of places according to their location in the region, and the dynamic between thinking in larger patterns and nurturing/accommodating the specific and the innovative as they contribute to the public realm. The works described here intend to overcome a ubiquitous form of thinking that has placed automobile access and singular buildings at the apex of a system of codes and regulations that now govern the dispersal of America and the excessive consumption of both land and energy resources.

To offset the bundle of uniform, auto-oriented assumptions that have infiltrated planning and development processes nationwide, and that now guide construction of large segments of the U.S. (and increasingly the rest of the world), they suggest a graduated scale of development types, each suited to its position in a section (transect) cut through the land to reflect a complete range of possible settlement densities, from rural to urban. Each area of the transect is coded to certain types of building form, landscape arrangements, street designs, and transportation modes. The transect approach establishes arrangements that can, and should, be tuned to specific cultural and geographic conditions.

For some, the idea of new form-based design codes based on transect zones may simply be about substituting one set of universalizing assumptions for another. Following a transect-derived form-based code may reduce the mindless disorder of the suburban strip and lead to more clearly defined places at a variety of densities. But some "disorder" may also reflect the vibration of lives lived differently as a result of changing cultural and economic patterns. Aberrations may also result from a spirited urge to manifest an individual view on what it means to care for one's place in the world—to provide an intelligent dissent that is uncomfortable, but instructive.

Whatever the case, the idea of the transect raises important issues that planners, designers, and interested citizens should be addressing. As we have often pointed out, the purpose of *Places* is not to answer questions, but to raise them. How can any system of codes and regulations really help "build community"? If not the transect, how can we frame ideas about the connections of building form to location, and then bring them to play in community decisions? We need intelligent new theories about how to improve the often dismal quality of the world expanding around us.

Building community requires absorbing the energies of life. We must learn to construct places that have sufficient diversity to nurture both change and reassurance. Used as a ground for imagining broad differences, the transect can help us to get there—emphasizing fundamental relationships in the public realm and giving them force. Used as a confining doctrine rather than as a tool for building communities of interests, it will not. We need places that encourage and sustain both individual aspiration and common understanding.

— Donlyn Lyndon

Counterpoint: Transect Transgressions

Jaime Correa

The rural-to-urban transect may be a good ordering device and may serve as a good explanation for the morphology of some cities, but it falls short describing the formal symbolism and development of the true traditional city—the one built by human volition and affected by climate, culture and topography. Despite efforts to reduce every culture of the world to a single ethnocentric episode, the proponents of the "transect" have yet to realize that the complexity of the city is resilient. It cannot be demoted to a deceptive intellectual exercise with universal or pragmatic pretenses. To think in such reductive terms can only lead to the replacement of the inefficiencies of one system with the promises of another, with ultimately similar consequences.

In traditional urbanism, there is no such a thing as a natural law; incremental development, with its eccentricities, appropriateness, and morphological disobediences is "The Law." The paradox is that, the model from which the transect-based theory receives its mimetic inspiration and critical power is also becoming its ultimate transgression.

Against Universal Types

At a point when the neo-morphological project of the modernist period is in clear defeat, the rural-to-urban transect is emerging as a pretentious design standard carrying similar yet devastating cultural consequences. Unchecked and unchallenged, its multinational application may eradicate the beauty of places shaped by local cultures, whitewash the formal expression of the various world regions, and downgrade the accumulated urban design richness of the last few thousand years.

The idea of one single model based on an ecological transect—which proponents may consider a mischaracterization—is very seductive, but it is also the kind of American pragmatism where predetermined cultural proprieties, ethnocentricity, self-control, transportation engineering, zoning, and land use economics are the controlling agents of a design empire. How many of our most beloved traditional cities would pass, with academic rigor, this pseudoscientific test?

At the Graduate Program in Suburb and Town Design of the University of Miami, the documentation of traditional cities is a fundamental introductory assignment. The systematic investigation of the incremental city (the traditional/living city) allows domestic and foreign students to increase their awareness of design commonalities and eccentricities. Most importantly, it also helps them develop an acute professional lexicon.

Over the years what this effort has shown is that the study of traditional cities and towns reveals corollaries, but



also contradictions, to transect theory and its explanation of the city. For students from Shanghai, New Delhi, Al-Madinah, Cartagena, Ibiza, Qatar, Lima, Kuwait, etc.—or, even for students from small American cities like Woodstock, Santa Fe, or Williamsburg—the transect is an exotic idea which is valued more for its methodological mannerisms than for its accepted principles.

With a great degree of certainty, design studios at our program have allowed us to see how the incremental city cannot be reduced to the simplicity of the rural-to-urban transect. Furthermore, the living city does everything possible to enrich its own culture, annihilate homogeneity, defy economic descriptions of its geographic territories, and resist the production of undifferentiated public spaces. The traditional city breaks its formal structure into a vast mosaic of small and different subcultures, each with its own spatial territory, and each with its own distinct lifestyle.

To complicate matters even more, these cities present little recognizable structure. The living city offers a combination of land uses and densities which are more or less rambling and incoherent. The high-density areas, potentially capable of supporting high intensity, are too widely spread; the low-density areas, capable of supporting quiet and silence, are also diffusely speckled. The formal result contains neither an intensive center nor a place of absolute peace, but a harmonious collage of both—a collage that might just as easily be achieved through historic evolution and/or traditional experience (e.g., Muslim cities), foundational design rules (e.g., Law of the Indies), or marketing and contractual hierarchies (e.g., medieval cities).





A Folio of Examples

Three examples may bring light back to this argument. First, in Latin American cities a reversed transect may in fact describe traditional city form—with large residential lots occupying the city center (lots which were appropriated by the founding fathers) and small lots at the periphery (given to lower-rank officials). This is a tradition still present in the location of shanty towns surrounding capital cities like Bogota, Guatemala City, El Salvador, Quito, Caracas, etc.

Second, in Muslim cities, the concept of the neighborhood is largely absent, replaced as a basic urban unit by the enclosed family/clan cell. Such a diffuse ordering principle is one of the most evident transgressions of the pyramidal distribution of land intensity advocated in the transect. In fact, no transect-like rules may be found in cities like Muscat, Aleppo, Fez, Baghdad, or Sana'a. And even American cities like Woodstock, Santa Fe, and some originally French towns along the lower Mississippi—or even Williamsburg —defy the hierarchical classification of the transect.

This phenomenon has been widely investigated in books by Tom Brennan, Terence Lee, and Christopher Alexander.[1] In fact, all these scholars agree a center should lie along the boundaries of a neighborhood; or, to put it more succinctly, *the center of a community is usually off-center*. A neighborhood may more normally take the shape of a semicircle (or an oval) with a radius of approximately 1,300 feet, rather than a perfect quarter-mile circle, as advocated by New Urbanist theories.

In addition, research shows that these eccentric nubs are not pure, but bulge into the community and form a horseshoe-like shape along the boundaries and toward the side of its geographic center. Christopher Alexander described this as: "…a beautiful gradient of overlapping imbricated horseshoes, not unlike the scales of a fish."[2]

The Incremental City

The morphology of the city and its housing gradients vary from culture to culture, from place to place, and in accordance with the geography, the climate, and the geometry of their location. The morphological description of the city cannot and shall not be reduced to a standard genre, unique law, or standardized typology. The incremental city, with its eccentricities and morphological disobediences, must regain its original significance as the absolute model and the only law. Please, allow us to preserve its complexity.

Notes

1. Tom Brennan, *Midland City: Wolverhampton Social and Industrial Survey* (London: Dobson Press, 1948); Terence Lee, "Perceived Distance as a Function of Direction in the City," *Environment and Behavior*, June 1970, pp. 40-51; and Christopher Alexander et al., *The Pattern Language* (Oxford: Oxford University Press, 1977). Other useful studies are provided in John Reps, *Town Planning in Frontier America* (Columbia, MO: University of Missouri Press, 1980); and the Seaside Institute (Todd Bressi, ed.), *The Seaside Debates: A Critique of the New Urbanism* (New York: Rizzoli International Publications, 2002).

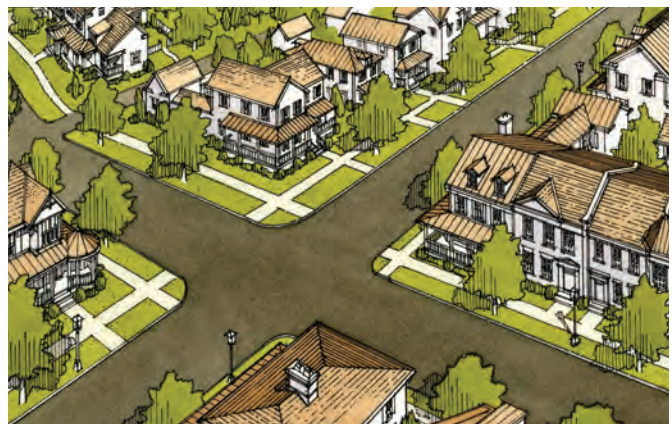
2. Alexander et al., *The Pattern Language*, p.145.

Above: The accommodations made in traditional cities would defy coding via a transect. Left to right: Ibiza, Spain; Nizwa, Oman; Prague. Photos by author.

Democracy and Urban Design: The Transect as Civic Renewal

David Brain





As urban design has attracted new interest over the last decade, critics and theorists have often warned of the dangers in overstating its power to effect social change. However, the question is rarely turned around: how could design play an intentional and active part in shaping the democratic character of the city? Since any intervention in the urban landscape has political implications, what are the possible connections between the practice of urban design and our aspirations for democracy and social justice?

On the whole, we have not done well with this question. The incorporation of citizen participation into conventional planning has had persistently paradoxical results. Since the 1960s, the proliferation of public interest and environmental groups, empowered by new mandates for public participation, has given citizens a significant role in land use and planning decisions. At the same time, participation has produced frustration, disillusionment, and cynicism on all sides, encouraging politics that are adversarial, hostile to negotiation and compromise, and frequently a significant obstacle to good planning and effective implementation of plans. As a result of the ways the current regulatory regime blends technical expertise, procedural requirements, and citizen input, the public process has reinforced some of the most socially and environmentally damaging tendencies of current development patterns while simultaneously undermining faith in government—and, more generally, in democratic process. We have created a regime that almost requires public-spirited citizens to mobilize as narrow-minded, single-issue reactionaries, and to engage in endless small battles just to ensure that whatever it is doesn't happen in their back yard.

Above: The transect can be used as the basis for a more publicly accessible planning process. These birds-eye drawings, created for a charrette in Louisville, Kentucky, by Seth Harry for Duany Plater-Zyberk & Company, show the character of a typical street corner in different transect zones. Illustrations such as these may engage the public far more effectively than abstract zoning maps and charts.

In the course of six years of fieldwork that has included observing charrettes, public hearings, and other public discourse on planning and urban design, my research has revealed widespread reaction against this regime, apparent in efforts to reorient the politics of planning to concern for the quality of community life and for the preservation of the identity and character of places, and for plans that express substantive aspirations as they tame growth.[1] Much of this reaction has been catalyzed or given clear articulation by the New Urbanism, with its design-centered revival of concern for the qualitative experiences of traditional neighborhoods, streets, and public space. If we look beyond the New Urbanist imagery that critics sometimes mistake for shallow nostalgia, we can see that the manifestation of an urban ideal in popularly recognizable forms, along with the general emphasis on urban design as a practical medium in and through which we might realize collective aspirations, brings many of the central challenges of civic democracy into sharp relief. Whatever criticisms might be made of particular New Urbanist projects and proposals, the effort to revive an urban ideal can be understood as a practical version of a broader movement for civic renewal.

Popular reactions against the conventional development regime echo a wave of "civic innovation" over the last decade in connection with issues ranging from community development to regional environmental problems.[2] This movement seeks to reconfigure the connection of citizens to public life by challenging the dominant framing of key issues by political and professional elites. This civic innovation involves creating new organizational settings that engage diverse social interests on common ground, enabling them to recognize a common stake and responsibility for a shared environment. For example, "civic





environmentalism" has found alternatives to unproductive protest politics or top-down regulation by seeking solutions to complex environmental problems through extensive and substantive cooperation between partners who might otherwise find themselves caught up in an adversarial politics: citizen groups, professional experts, officials representing public administrative and regulatory bureaucracies, nonprofit organizations, and business or industry.[3] In contrast with simplistic ideas about expanding participation, theorists and activists alike emphasize the importance of a democratic capacity rooted in a pattern of civic association that bridges social differences, constitutes social capital, and provides a necessary civil counterbalance to the bureaucratic state and the effects of global markets.[4]

Planners interested in civic engagement have focused on the processes that build social capital, but often fail to realize that the problem isn't just a matter of improving engagement in the process. The problem of democracy is not just who wields power, but for what purpose. It isn't just inclusiveness that defines engagement as "civic," but a process that reflects "formative aspirations" that transcend the mere aggregation of individual interests.[5] In what ways might urban design be reconstructed as a new civic art, with an understanding of this old phrase in terms of current political challenges and in a way that engages the contemporary projects of democratic empowerment, environmental responsibility, and social justice? This is not a question that anyone seems to be asking directly.

In New Urbanist practice, the rural-urban transect has emerged both as an analytical approach to making sense of the diversity of places that make up human settlements, and as a technical framework for planning and form-based coding. This essay hopes to explicate the way a transect-based approach might integrate urban design into a more effectively democratic planning practice, avoiding some of the political pathologies of the current development regime. Because of the way form-based coding puts the transect into operation at the intersection of popular engagement, expert design, and technical/administrative rationality, it offers a practical coupling between vision and implementation, between a normative understanding of urban form and the often frustrating way that contemporary place-making relies on the contingent intertwining of private investment, market dynamics and public policy. Although it has not been explicitly linked to the politics of civic renewal, the transect may be the first step toward theorizing a practice of urban design capable of contributing to the substantive realization of a civic politics.

The Conventional Development Regime

In popular parlance, the problem is "sprawl," but this language captures only the land-consuming spread of development, not the underlying logic of a pattern of development that now affects redevelopment in the inner cities as much as new construction on the metropolitan fringe. The sprawling consumption of land is largely a side effect of the way the development industry has turned land into a commodity. In this complicated business, reduction of risk involves avoiding projects that don't fit standardized categories in an interlocking system of financing formulas, measures of market feasibility, product types, zoning categories, environmental impact assessments, and routinized planning practices. The overall logic of the conventional development regime is the unintended consequence of the way highly rationalized institutional domains are interlocked by mutually dependent decisions—each rational in its own terms, but not adding up to a solution that makes sense as a whole.[6]

Conventional zoning provides a clear example of the logic of the regulatory apparatus. In practice, as variances

and zoning changes are negotiated over time, the rational mapping of zones becomes a confusion of ad hoc adjustments in which the organization of uses and patterns of varying densities reflects the contingencies of land availability, market dynamics, and political bargaining—largely without regard to a geography that makes legible sense as an ecology of places and lived social space. From the standpoint of the administrative state, however, the abstraction of Euclidean zoning has crucial advantages. First, rules can be applied categorically, in a way that is responsive to the demands for procedural fairness crucial to a regulatory system oriented to maintaining not only property rights but real estate value. Second, the combination of single-use zoning with standardized real estate products makes impact assessments easier to render in comparable terms in a process continually under threat of litigation. Third, this method of regulation enables the coordination of public input with technical considerations in carefully structured public hearings that keep the unpredictability of public involvement within limits.

The so-called "public process," including carefully structured and legally mandated opportunities for "public input," has been incorporated into a regime that includes the organization of capital and the protocols of lending institutions, the apparatus of conventional zoning and land development regulations, and a professional division of labor between technical specialists. With the expansion of public participation since the 1960s, the balance between regulatory compliance and public process has shifted, especially in those jurisdictions where growth pressures have produced dramatic changes over the last two decades. As a result, a system of technical and administrative rules now increasingly carries the burden of channeling the mobilized political energy of popular reaction to the problems of growth. Popular mobilization latches on to legal and procedural technicalities as the only effective tactic to put the brakes on a development process that appears to be driven only by profit and private interests. Meanwhile, decision-making bodies, under tremendous fiscal pressures to support growth, find themselves operating in an intensified political atmosphere, under suspicion of influence by special interests, with the threat of litigation as a constant motivation for assiduous attention to the precise letter of the rules.

The introduction of environmental regulation into this process helps to exacerbate a displacement of politics within the regulatory apparatus. In the context of the public process, sincere and reasonable concern for the environmental impact of development is mixed with specific "not-in-my-backyard" (NIMBY) reactions, narrow self-interest, and a generalized fear of "out-of-control" development and environmental degradation. Public hearings, as one form of participation, have become a hybrid of technical expertise, legal argument, and public reaction. Each development proposal, each parcel of land, each tree can become a front-line skirmish in what often ends up being framed as a desperate battle to save the planet from greed and irresponsibility. The totalizing character of environmental rhetoric turns land use decisions into moral battles between irreconcilable opposites. An embattled planning staff, with limited personnel, resources, and narrowly defined technical expertise, often finds itself caught between the moral passions of citizens, the arguments of land use attorneys, and the testimony of dueling experts.

A process set up primarily to meet expectations of technical and administrative rationality, therefore, now provides the main institutional framing for the popular politics of land use. However, conventional planning practice tends to produce a system of regulations through lists of prohibitions and incentives. The result is that the process becomes a noncooperative game in which the players are motivated to optimize their position without regard to the broader consequences of particular tactics, undermining trust between actors and faith in the process as a whole. Even successful popular opposition to a proposal can produce a downward spiral in quality, as relatively responsible developers are replaced by the more aggressive and unscrupulous, and as the developers are driven to meet the absolute letter of the regulations in order to "meet the neighbors." Indeed, "meeting the neighbors" has become a telling euphemism for an unreasoning and intransigent opposition in a costly process where outcomes are completely unpredictable.

The intersection of the regulatory apparatus, with its particular operational needs, and the framing of land use decisions in terms of an epic conflict between environment and economy, creates a reactionary politics that often leads to political paralysis. Ultimately, this can only favor whatever passes as the status quo and spell defeat for any proposal (independent of quality or relationship to stated public goals) that does not slide easily through the routines and standardized protocols.

Stealth Democracy and Civic Design

Optimistic theorists have commonly argued that increased participation in democratic deliberation will produce better decisions, a more legitimate system, and a more sympathetic and public-spirited citizenry. However, researchers have found little evidence to support this wishful

thinking; indeed, the evidence indicates that participation in problematic processes will as easily produce cynicism, distrust, and a widespread desire to avoid being required to participate in political decision making processes at all.[7] People are most interested in what Hibbing and Theiss-Morse have called "stealth democracy," a process of governance that is usually invisible, with opportunities for imposing accountability when citizens feel the need.[8] What people really want is for participation to seem unnecessary.

The preference for stealth democracy rests on two mistaken assumptions that are often reinforced by experience with exactly the kind of participation offered by current planning. First, there is an assumption that the common good would be self-evident if only it were possible to clear away the confusion of special interests.[9] Second, there is the notion that since any specific plan for achieving a desired goal is as good as any other, dispute over the specifics is necessarily motivated by special interests.[10] Typical public hearings and forms of "public input" in the planning process tend to reinforce attitudes about the questionable motivations of politicians and the frustrating and unproductive character of the political process.

If citizens are to learn to engage in an effective democratic process of debate and compromise, they need to recognize that experts can disagree over goals and strategies in areas where there are value-driven choices to be made. They also need to be convinced that "details matter" when considering alternative approaches to important issues, and that details can matter for reasons that transcend particular interests.[11] In other words, the process of deliberation and decision making, with its detailed considerations, needs to be explicitly oriented to substantive concerns.

This is precisely one of the ways that a design-centered process can make a difference, at least in so far as the design process is a careful study of the ways that details can matter, and to the extent that the public can be engaged in this process. Discussions of the importance of design have tended to get caught up in the issue of whether design can cause changes in social behavior. This is a misleading question, however, because design is *already* social action. Places are not just containers for social life, but themselves social accomplishments—things we do together, with more or less coherence, purpose and self-consciousness.

Design matters first and foremost because it is a practice of organizing our intentions in a series of explicit decisions concerning those qualities of the world we choose to recognize as significant. Urban design may matter most to the extent that its "logic of action" is shifted from a practice of creating visual and social effects by manipulating urban form to a practice of engaging others in the cooperative game of place making.[12] Conceived in this way, urban design can link the sustained collaboration that gives coherent and meaningful form to diverse, complex places to a capacity for democratic self-government and the inclusive, vital, and open-ended quality of democratic culture.

Democracy and the Urban Ideal

An urban ideal is evident in the idealized neighborhood unit at the heart of much New Urbanist practice.[13] In contrast with the abstracted logic of Euclidean zoning, the neighborhood provides a concrete image of a combination of uses into a "balanced mix" relevant to the practical geography of everyday life. In New Urbanist practice, the neighborhood unit is not just a nostalgic image, but a paradigmatic representation of the core value of urbanism as a particular normative condition: the extent to which each house, each project built in a community, contributes to the completion of a street, neighborhood or town; to the achievement of emergent possibilities; to a history that gives the place depth and meaning; and to the richness, variety, amenity, functionality, and pleasure of a shared world. Ideally, this is to be achieved not by the hand of a single designer emulating historic cities or working scenographic effects by fiat, but as the cumulative effect of individual projects of diverse architectural type and stylistic expression—as an open conversation and not simply a scripted dialogue.[14] Even as the mix of uses in a place changes, even as unpredictable social changes take place, the distinctiveness and quality of the place can be maintained.

The imagery of the traditional neighborhood at the center of New Urbanist discourse, however, has contributed to the misperception that the New Urbanists are interested in only one scale and one kind of urbanism. In fact, the CNU charter explicitly emphasizes the importance of moving from the scale of the lot and block to the scale of the region.[15] In particular, the idea of a rural-urban transect offers a way to think analytically and systematically about neighborhoods, cities and regions as ecologies of diverse places in a way that makes explicit connections between issues of form, scale, geography, and social experience. The transect organizes empirical description of real places as built, experienced and lived, using a typological analysis that moves from the finest level of detail to the regional interlacing of human settlement and natural ecosystems. The gradient from rural to urban encompasses variations in the relationship between human settlement and natural conditions; in the articulations of public and private life; and in spatial morphology and building typolo-

gies associated with interconnected variation in managing relations of humans with each other and with nature.

As a transect-based analysis thus highlights ways that form matters at every level of scale, urban design acquires a clear purpose as a practice aimed at realizing the formative aspirations of a community. One of the key components in the production of urbanism is time—and the expectation that no planner or designer completes the process, only provides conditions for a collaboration that includes not only current stakeholders but future cohorts. Emphasis on form-based coding is one way to create a framework for the collaborative capacity necessary to sustain certain qualities of place over time, elevating common practice to a consistent level while not constraining either excellence or individualizing impulses. Any design intervention can be regarded as contributing to the history of the place, and as participating in an open-ended but still coherent, goal-oriented process. Urban design becomes a medium in which civic connection can be manifested in tangible form. At the same time, this also implies that a community has the political capacity to sustain the realization of a coherent urbanism, and come to terms with real divisions and conflicts in the community as it articulates a shared vision.

The idea of a transect thus enables urban designers to build a place-making toolkit out of precise community analysis. A transect-oriented planning process can frame the issues in terms of an articulated range of interconnected differences, establishing the ability to debate each decision in terms of principles operationalized at different scales. To put it simply, it allows us to understand each building, development project, or design decision as tied not just to individual utility but to a process for sustaining place value.

In the context of design-centered public process, such analysis can become the scaffold for effective public discourse, enabling citizens to learn what is at stake if a particular decision were to be codified. Citizens can make clear and principled decisions about what goes appropriately where, avoiding absolute prohibitions in favor of the question of where something might actually contribute to the emergent quality of a place. The combination of analytical clarity and the flexibility of a system of transformation rules enables a continually improvised urban order, reflecting not just the vagaries of the market or the randomly aggregated aspirations of individuals, but a civic sensibility that infuses each individual project with a sense of responsibility for a positive collective outcome.[16]

Refocusing on Design

In spite of the expansion of participatory opportunities over the last couple of decades, ultimately the form and character of urban development is determined by developers' ability to work through a highly politicized and unpredictable regulatory process with their bottom line intact. The conventional planning process often produces documents that are little more than summaries of vaguely defined goals, transcriptions of public comment, and broad policy recommendations—generally leaving implementation to the vagaries of negotiation between market-oriented entrepreneurs and bureaucratic regulators.[17] Meanwhile, the low-density, automobile-dominated patterns built into current zoning ordinances, subdivision regulations, and conventional traffic design standards become the path of least resistance through the regulatory gauntlet. In a sense, the more "democratic" the public process seems to be, the less genuinely democratic the process of shaping the future of our communities has actually become. The conventional development regime has the effect of literally dis-placing politics, both in the sense that politics are removed from whole arenas of technical decision making, and in the sense that the politics of land use come to be increasingly about technical issues, rather than about the qualities of place.

Emphasis on a design-centered process has been reflected in the practice of allowing the public to engage the specific decisions about urban and architectural form in the context of a charrette, and broad efforts to establish a clear and collaboratively produced vision.[18] This is not to say that simply proposing an urban ideal will bring about a revival of civic life, much less resolve all the challenging issues of social justice and democratization.[19] There has not been explicit recognition of the ways that New Urbanist practice might more systematically engage the broader movement of civic innovation oriented to democratization, social justice, and environmental responsibility. Nor have the advocates of social capital and civic engagement generally recognized the potential importance of urban design.[20]

Designers and planners generally need to work with a more sophisticated understanding of the conditions and possibilities of democratic politics. We need to get past the naïve notion of democracy that makes us think that a process becomes more democratic simply by including more people in the meetings. In practical terms, communities need to build civic capacity around an understanding of the complex forms of human settlement, not simply as the reflex of market activity or the unintended consequence of regulatory policy, but as a clear and purposeful reflection

of a democratically constructed vision. Designers and planners need to face up to the political challenge implied in such a goal.

The shaping of the urban environment needs innovative solutions like those that have emerged over the last decade in connection to issues like watershed restoration and environmental justice. A design-centered and transect-based approach offers the possibility of a planning process capable of enabling effective engagement and constructing a sense of collective responsibility across even deep social and political divisions. At the same time, civic groups need to understand that cities might be made better on purpose, but that to accomplish this we need to get past the reduction of urbanism to social and economic functions apparently beyond our control and understand the ways that design can matter as a medium in which to recognize, articulate and realize civic aspirations.

Notes

1. An example of the latter would be the recent interest in "visioning" and vision-oriented planning.

2. Carmen Sirianni and Lewis Friedland, *Civic Innovation in America: Community Empowerment, Public Policy, and the Movement for Civic Renewal* (Berkeley: University of California Press, 2001).

3. In *Civic Innovation in America*, Sirianni and Friedland provide a good summary of "civic environmentalism." See also William Shutkin, *The Land that Could Be: Environmentalism and Democracy in the Twenty First Century* (Cambridge: MIT Press, 2000).

4. Jean L. Cohen and Andrew Arato, *Civil Society and Political Theory* (Cambridge: MIT Press, 1994): and Robert Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster, 2000). For examples of this kind of civic renewal, see Robert Putnam and Lewis M. Feldstein, *Better Together: Restoring the American Community* (New York: Simon & Schuster, 2003).

5. Michael Sandel contrasts the "formative aspirations" of civic republicanism with the process orientation of the "procedural republic." See Michael Sandel, *Democracy's Discontent: America in Search of a Public Philosophy* (Cambridge: Harvard University Press, 1996).

6. For a detailed discussion of the standardization of product types in real estate, see Christopher Leinberger, "Retrofitting Real Estate Finance: Alternatives to the Nineteen Standard Product Types," *Places*, Vol.17, No.2 (Summer 2005), pp. 24-29; and "The Market and Metropolitanism," *The Brookings Review* (Fall 1998).

7. John R. Hibbing and Elizabeth Theiss-Morse, *Stealth Democracy: American Beliefs about How Government Should Work* (Cambridge: Cambridge University Press, 2002).

8. As a result, many of the goods that we hope to come from participation—improvements in the quality of decisions, the legitimacy of government, and the character of its citizens—are not likely to result from simply expanding citizen involvement as long as the processes in which they are being asked to participate are essentially flawed.

9. Hibbing and Theiss-Morse, *Stealth Democracy*, p. 9. This assumption has been the underpinning of ideas about professionalized administration since the Progressive Era, and it is well entrenched in the popular imagination.

10. Hibbing and Theiss Morse, *Stealth Democracy*, p. 224.

11. This is a recognition that has been rendered increasingly difficult not only in planning processes, but by the general erosion of the discourse of "public spirited" action in American political culture. See Nina Eliasoph, *Avoiding Politics: How Americans Produce Apathy in Everyday Life* (Cambridge: Cambridge University Press, 1998).

12. The phrase "program of action" comes from Michel Callon and Bruno Latour, "Don't Throw the Baby Out with the Bath School!" in Andrew Pickering, ed., *Science as Practice and Culture* (Chicago: University of Chicago Press, 1992).

13. For a more extended discussion of the two ideals implicit in New Urbanist practice, see David Brain, "From Good Neighborhoods to Sustainable Cities: Social Science and the Social Agenda of the New Urbanism," *International Regional Science Review*, Special Issue on Smart Growth and The New Urbanism (April, 2005), pp. 217-38.

14. It may be worth noting that this understanding of the urban public realm is an expression in built form of the classical notion of the public realm as a domain in which the individual competes for honor and recognition. See, for example, the discussion in Hannah Arendt, *The Human Condition* (Chicago: University of Chicago Press, 1958).

15. Michael Leccese and Kathleen McCormick, eds., *The Charter of the New Urbanism* (New York: McGraw Hill, 2000).

16. It may also be a way to bring substance to vague and fragmented conceptions of "sustainability."

17. Even so-called "comprehensive planning" is typically reduced to the hammering of interested parties on a technical system that reflects no overarching vision. As one participant remarked, it suddenly occurred to him that nobody was asking the most basic question as the group went around and around in contentious discussions: "Planning for what?" Under such circumstances, the process tends to appear as a string of battles in a lost cause.

18. For an example of a regional vision, see Peter Calthorpe and William Fuller, *The Regional City: Planning for the End of Sprawl* (Washington, D.C.: Island Press, 2001). For a general discussion of the practice of the charrette, see Bill Lennertz, "The Charrette as an Agent of Change," in *New Urbanism: Comprehensive Report and Best Practices Guide* (Ithaca, NY: New Urban Publications, 2003), pp. 12-28.

19. See Eliasoph, *Avoiding Politics*, p. 230. The problem remains of articulating a political discourse that begins to explicate and resolve the tension between the ideal of creating a "sense of community" and a public-spirited political life, a public sphere capable of both encompassing and transcending differences. This is precisely the practical challenge posed in more theoretical terms by Iris Marion Young's revival of the idea of the city as a normative ideal in *Justice and the Politics of Difference* (Princeton, NJ: Princeton University Press, 1990).

20. Putnam and others have recognized effects due to suburbanization, and have cited examples of urban revitalization like the Dudley Street Neighborhood Initiative, but have not explicitly recognized the potential importance of urban design practice as a catalyst for civic spirit or a practical medium in which civic action might be realized with broad ramifications for building durable capacity as well as addressing pressing issues of social justice in the city.

Places of Ethnic Commerce across the Transect

Peter Elmlund and Charles C. Bohl



Within the range of human ecologies encompassed by the rural-urban transect there have always been places where immigrant cultures could concentrate and create centers of ethnic commerce. In the United States these have ranged from dense urban neighborhoods such as New York's Little Italy to the more rural Vietnamese fishing "villages" that sprang up along the Gulf Coast in the 1970s.

Traditionally, within such communities, the home has served a variety of income-producing roles. It provided rental income from extra rooms and accessory spaces, and it offered a setting for small businesses, particularly craft and service enterprises, to supplement the pay of low-wage workers.[1] The failure of suburban and modernist planning to support such places of ethnic commerce today is another argument for the development of alternative models of community design.

In Europe, this failure became particularly apparent during last year's Paris riots. Commentary on the riots focused correctly on the need to provide economic opportunity for alienated immigrant youth. However, it missed the critical role that town planning and place making play in creating or constraining all-important opportunities among immigrants for self-employment, home ownership, and social integration.

One of Europe's greatest problems today is that we lack the type of urban environment that can promote these opportunities. Immigrants are stuck in large-scale, isolated suburbs that frustrate small-scale commerce. And in Sweden the problem is made worse by the fact that many

Above: Stockholm produce market. Photo by Charles C. Bohl.

such areas are owned by public agencies—large organizations of bureaucrats who do not wish to relinquish ownership to residents or allow changes to settlement patterns.

Cities: Cradles of Opportunity

More than four decades ago, Jane Jacobs observed in *The Death and Life of Great American Cities* that there was a connection between entrepreneurship, healthy communities, and urban form.[2] Among other things, she distinguished between the primary and secondary functions of a city. Primary functions are things that have to be in a city such as large residential buildings, offices for private and public use, cultural institutions, and hospitals. Secondary functions exist as a result of the street life generated by the primary functions: a complex web of markets, shops, cafés, restaurants, services and other activities sustained by the flow of pedestrians. As Jacobs pointed out, a prerequisite for this secondary market is that people associated with the primary functions move along the same streets where it is located.

When Jacobs' book appeared, it wasn't criticized for its analysis, per se; rather, its ideas were seen as anachronistic. In the 1960s the industrial logic was that small, individually owned and operated businesses would eventually be replaced by larger businesses or chains of small and moderate-sized businesses that were part of a larger, more economically efficient corporate operation.

To reinforce such notions of "progress," modernist town planning since World War II has separated formerly integrated activities and connected them by specialized routes. As a result, in Europe for the last half century we have neglected the old knowledge that the shape of the city itself influences economic life. We have stopped building on historical webs of streets and squares. Instead, we have laid out new residential neighborhoods, shopping centers, and industrial areas as isolated enclaves around historic cities.

The historical move to such planned "new towns" has been elegantly criticized by Henri LeFebvre.

> *The city was a prerequisite for industry. Without the density with its various opportunities, the first capitalists would never have been able to carry out their grandiose schemes. But now, when the whole of society has been industrialized and urbanized, the real city has been annihilated. Segregation, separation and simplification of functions have impoverished the urban life that was once characterized by variety, mobility, encounters, festivals and play. Meeting places become parking lots. Now the struggle is about the right to the city.*[3]

As the Paris riots indicated, the injustice of such planning may be nowhere more apparent than in our immigrant communities. What more essential right is there in a city than to start a small business? And without such a right, what grounds exist for social integration?

The Swedish Example

Among European countries, Sweden was one of the most radical in carrying out modernist town planning. Since the 1950s most small Swedish towns have seen their historic centers demolished to make way for large department stores and big car parks. Bypasses have allowed new business development at the edges of cities. And as commerce has become increasingly car dependent and large scale, it has become increasingly difficult to sustain small business enterprise.

The problem is compounded for immigrants, who mostly live in our "million program areas" (areas built as a result of a policy to build a million dwellings between 1965 and 1974), where commercial space and urban streets are few. Is it any wonder, then, that unemployment is high among immigrants in Sweden? One only has to compare our situation to that of Britain, where most immigrants live in historic areas of major cities and where a strong ethnic economy has developed.

Emerging research is revealing the importance of the relationship between urban structure and immigrant enterprise. For example, Pyong Gap Min and Mehdi Bozorgmehr have found "significant differences between different cities as regards immigrant business activity, partly caused by differences in the industrial and urban structure."[4] Ans Rekers and Ronald van Kempen have also been explicit about the connection:

> *The spatial structure of a city is important with respect to business premises. In many Western European countries an enormous difference exists between pre-war and post-war neighbourhoods. In older neighbourhoods, shops and other enterprises grew up more or less spontaneously around daily markets and in several streets through out the area. These premises are now being occupied by new users, including ethnic entrepreneurs. Newer neighbourhoods, however, are often more deliberately planned, in many cases very strictly. Sometimes rules exist about who is and who is not allowed to establish an enterprise…. At least formally it is much more difficult to set up a business in these areas.*[5]



Such a situation is clear in Stockholm. Inside the old city gates there is a small historic core with a grid street pattern and buildings that have a relationship to the street. Outside the gates is the modernist, dispersed city, composed of enclaves largely lacking a traditional fabric of blocks and streets. In this environment of shop-less pedestrian paths, cycle tracks, roads, car parks, and local shopping centers, a pedestrian-oriented economy is simply not supported.

As one might expect, there are *four times* as many small businesses in the inner city relative to population than in the outlying areas. There are also clear cluster formations along important shopping streets and around squares. For immigrants, however, the inner city is increasingly gentrified and expensive. Meanwhile, the satellite suburbs where they live and work not only lack a concentration of commercial space along pedestrian streets and squares, but also access to a diverse population with potentially higher incomes.

Such a problem of access carries over to suburban districts that attempt to create city-like densities. Rinkeby, with its high proportion of immigrants, has a rudimentary street grid and shops both on a square and along its streets. But connections between Rinkeby and its immediate surroundings are poor, and it is remote from the city center. If Rinkeby's immigrant residents instead occupied a few districts in a city with a continuous street network, they might coalesce into a ethnic neighborhood with culturally unique shops, services, and dining and drinking establishments.

Above: The disconnect between Rinkeby and its surroundings is clear in aerial photos. Photo courtesy of Peter Elmund.

The beginnings of such a neighborhood may be seen in Möllevången, in central Malmö, where immigrant businesses are thriving and immigrants interact with the majority (Swedish) population. Such neighborhoods indicate that immigrant segregation is not in itself a problem; indeed, it can foster group solidarity. What is devastating is the combination of segregation and spatial isolation.

The role of planning in creating the necessary conditions for small business development may also be seen in the example of Rosengård, another immigrant neighborhood in Malmö. Rosengård's commercial area is located along one of Malmö's central thoroughfares. But one of Sweden's largest food supermarkets has also been established there, and the 25 low-paid checkout jobs it offers hardly compensate for the functional shadow it casts over the area. Even if there were a nearby retail district for small businesses—which there is not—the location of the market severely limits the possibility of local entrepreneurial activity.

Rosengård illustrates the effects of modernist town planning: an all-embracing dreariness, broken here and there by great concentration. It is exactly this type of spatial structure a supportive planning program based on the rural-urban transect would seek to deter.

A New Ecology of Small Business

Perhaps the most interesting aspect of small businesses, including immigrant enterprises, is their rapid renewal. Ideas are tested, refined, and either succeed or are rejected. Considerable research has shown that small businesses foster radical innovations.[6] However, in Sweden commentators are more likely to point derogatorily to the great number of small businesses that fail. Peter Drucker has warned about this perspective: "Only having hi-tech businesses, which are not integrated into a broad enterprise economy of no-tech, low-tech and middle-tech is like having a mountain top without a mountain."[7]

Above all, small businesses, which form the soil in which economic development thrives, are dependent on access to an urban environment. In return, entrepreneurship, especially among immigrants, often contributes to the improvement of once run-down areas. Today, however, economists and sociologists tend to see the city as a result of macroeconomic forces, globalization, and technological development.[8] As a result, where the vitality of immigrant businesses once attracted people from other parts of the city, promoting social and cultural interaction, today's renaissance in urban life has led only to increased homogeneity and gentrification.

Policies aimed at addressing the economic struggles and social isolation of immigrant groups must come to terms with the location and physical character of the places where they live and (attempt to) work and start small businesses. The problems are complex: part social and economic isolation; part dysfunctional planning and design at the local level; part restrictions on the type of messy, mixed-use urban neighborhoods and streetlife that have long been the bedrock of immigrant commerce.

The creation of new walkable, mixed-use neighborhoods integrated within a larger urban community must be part of the solution. But this will require a better understanding of the ecology of pedestrian-oriented economies and streetlife, and the way the network of streets, squares, and buildings in the traditional city once provided opportunities for ethnic enterprise.

Notes

1. C.C. Bohl, "Affordable Housing Design for Place Making and Community Building," in W. Rohe and H. Watson, eds., "This House is Home: Interdisciplinary Perspectives on Affordable Homeownership" (Philadelphia: Temple University Press, 2006).

2. J. Jacobs, *The Death and Life of Great American Cities* (New York: Random House, 1961).

3. H. Lefebvre, *Staden som rättighet* (Häftad: Bokomotiv, 1983), p. 37.

4. P.G. Min and M. Bozorgmehr, "USA: The Entrepreneurial Cutting Edge," in Robert Kloosterman and Jan Rath, eds., *Immigrant Entrepreneurs: Venturing Abroad in the Age of Globalization* (Oxford: Berg, 2003).

5. A. Rekers and R.V. Kempen, "Location Matters: Ethnic Entrepreneurs and the Spatial Context," in Jan Rath, ed., *Immigrant Business* (London: MacMillan Press Ltd., 2000), p. 137.

6. See, for example, Rath, ed., *Immigrant Business*; and Kloosterman and Rath, eds., *Immigrant Entrepreneurs*.

7. P.F. Drucker, *Innovation and Entrepreneurship: Practice and Principles* (New York: Harper & Row, 1985), p. 256.

8. Among those who have described the city in these terms, however, Saskia Sassen has written persuasively about how immigrant entrepreneurs establish themselves in the metropolises of the world and contribute to the growth of the service economy. Indeed, she has argued it is not just important for existing immigrants to start businesses, but for cities to serve as poles of opportunity for new immigrants. S. Sassen, "Immigration in a Global Era," *New Politics*, Vol. 9, No. 4 (2004), pp. 35-42.

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Forum of Design for the Public Realm

Forum of Design for the Public Realm, now appends to our nameplate. It signals a refocusing of the journal and the processes that lead to it.

We are now, more than ever, committed to the idea that we must provide a "**Forum**" for multiple views to be heard, debated, and examined over time. This begins with individual articles submitted by readers, and with broad themes identified by our Editorial Advisory Board. It includes prompting and encouragement from peers, through a process of review and suggestion, to shape ideas for presentation and/or highlight areas for reconsideration. Sometimes themes originate through symposia and ongoing campaigns of research; other times they are proposed by the Editorial Board as special projects. All this engages an ever-expanding network of people. As a Forum, we are committed to continued examination of subjects over several issues, yielding alternate insights on policy and design. This commitment soon will extend to a newly designed website to nurture ongoing deliberation and debate.

"**Design for the Public Realm**" states our intent to focus attention on the design of places that are publicly accessible, whether created by individuals, corporations, or public agencies. The impact of our environment is cumulative and extensive, and the consequences of design are not bound by the limits of ownership or interest. Individual projects create, in their entirety, the realm through which we all move, the realm in which we embed both private and corporate actions—the collection of places in which we build community.

We, in this Forum intend to keep turning attention from the part to a larger whole, from the specific to its place in a larger system of relationships…and back again. A public realm that is not filled with individuality and distinction is not one to which we should aspire, not one that is true to the miracle of life and its diversity.

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Front cover/back cover The front illustration presents many of the ideals of the rural-to-urban transect as a new normative theory of place making and community building. Among other things, the wedge shape implies a graduated increase in the amount of land dedicated to increasingly rural and natural settings as one moves outward from compact urban cores. Since reality will never be as perfectly graduated or centroidal as the drawing, the transect "tiles" shown on the back may prove more useful for application within a regional mosaic. Drawings by Eusebio Azcue for Duany Plater-Zyberk & Company.

SmartCode Justice

Emily Talen

Over the past century, one of the greatest disappointments of American city planning has been its complicit role in fostering the physical separation of people according to social criteria. This has been the unfortunate consequence of planning's various regulatory tools, notably zoning. As Michael Sorkin has written, city planning has largely been devoted to creating an "armature" of "conflict avoidance."[1]

City planning did not start out this way. Paradoxically, the twentieth century began with demands by urban reformers that something be done about the "monotony" of the slums. Thus, while early planning proposals—such as the Garden Cities of Ebenezer Howard—were designed to provide relief from the ills of the city, they continued to emphasize the interconnectedness of urban life. Even zoning was at first a mechanism of diversity, as planners like Josef Stubben proposed classifications that would integrate multiple uses in a coherent way.[2]

Some time during the 1920s, egged on by a public eager to protect property values, however, planners made a wrong turn. As they struggled for recognition and legitimacy, they began to think of their fledging profession in terms of single components—parks, streets, highways. Being scientific and efficient meant simplifying, and simplifying meant differentiating. One early practitioner, Harland Bartholomew, even described planning as "a divide and conquer system," whereby the city could be separated into components for easier analysis, plan-making, and hopefully, manipulation.[3]

Unfortunately, this meant separation by race and class, too. By the time of the landmark 1926 U.S. Supreme Court zoning case, *Village of Euclid vs. Ambler Realty Co.*, the segregationist orientation of leading planners was firmly established. The court merely legalized it. Writing for the majority, Justice Sutherland stated: "the apartment house is a mere parasite, constructed in order to take advantage of the open spaces and attractive surroundings created by the residential character of the district. Moreover, the coming of one apartment house [brings] disturbing noises…depriving children of the privilege of quiet and open spaces for play, enjoyed by those in more favored localities."

The Euclid decision was lauded by planners because it allowed them to discriminate between housing types in the design of new residential areas. By 1935, Thomas Adams, a leading planner, was proposing four classes of residential zones in the hope of reducing the "injury" that one housing type could cause another.[4] The upshot of such ideas was a system of zoning that protected property values but effectuated profound social inequities.

Today many planners interested in a more socially just development pattern believe it is necessary to reverse this history in any way possible. But will alternative systems of land use regulation bring a better outcome? As new regulatory approaches gain prominence, how can planners be sure they will reverse past forms of segregation?

Of the present alternative frameworks, the SmartCode represents a particularly strong departure from conventional land use regulation schemes. Based on the notion of a rural-urban transect, it proposes a series of six increasingly dense zones of settlement (labeled T1 to T6), from natural areas to the central city. Within each zone, building is regulated less by restrictions on use than desired attributes of form and type.

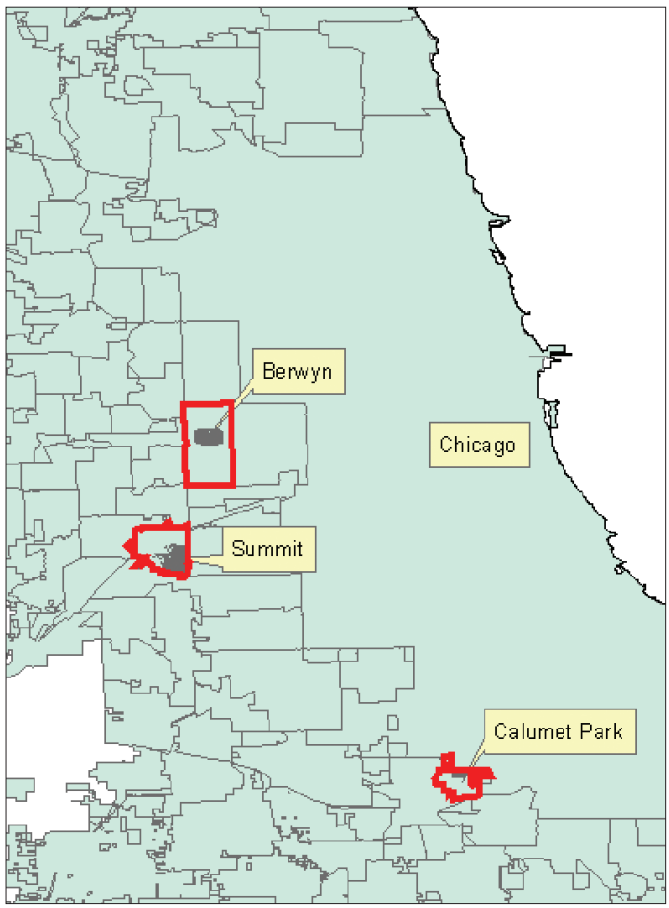
Can the SmartCode be evaluated in terms of its ability to foster social diversity? Can its intent to regulate according to a "collection of qualities appropriate to a zone" really protect against the further breeding of social homogeneity? As the history of American land-use zoning indicates, it is unlikely its effects will be neutral.

Planning for Diversity

To begin to address these questions it is important to define social diversity broadly—in terms of race/ethnicity, income, and stage in the life cycle. But what planning characteristics would be most likely to support such diversity? Surely, the relationship is complex: just as social and economic divisions may be both fortified by spatial conditions, so too might spatial conditions encourage social and economic diversity.[5] I propose four specific measures by which the design of the physical environment is likely to better support social diversity. An area (such as a neighborhood) might be considered diverse if it contains a mix of people according to these criteria.

Housing Mix. Creating a mix of housing units is the most basic approach to building diversity. Such a mix was an explicit goal of nineteenth-century social reformers. Early Garden City plans also integrated different types of housing within the same block as a way of encouraging a mix of people of various backgrounds. In those early designs, strategies often focused on disguising differences between housing types—for example, by making apartment buildings look like large single-family homes.

Today, mixing housing types may be a matter of reversing the rules by which social segregation has been achieved—allowing multifamily units where they have been excluded, and eliminating codes that have had the effect of putting a cap on density and infill (for example, minimum lot size and setback requirements). Putting



larger or more expensive housing in lower-income areas through replacement or restoration is a reverse strategy that may achieve the same effect.

Neighborhood Facilities and Services. Social diversity requires the support of a well-serviced neighborhood. Not only do neighborhood facilities serve the needs of residents, but neighborhood-level services can be thought of as places of shared space, with the ability to foster social connectedness. Collective ownership of facilities and services at the local level makes the neighborhood more stable, providing a better chance for informal, voluntary control. Sociologists who study "stable diverse" neighborhoods have found they contain two common denominators: economic diversity and a locally controlled institutional base.[6]

Above: Location of case-study neighborhoods in the Chicago metropolitan area. Drawings by author.

Centers and Edges. To formulate design principles that extend beyond unit mix and neighborhood facilities and services, it is possible to draw from the field of ecology. For forty years urbanists in the tradition of Jane Jacobs have argued that human habitats may follow key requirements of ecological structure.[7] For example, ecologists are interested in the characteristics of core areas (needed for interior species to thrive), and edge structure (width and composition).[8] It is conceivable that neighborhood structural qualities like centers and edges (cores and edges in ecological parlance) also have particular effects and importance in socially diverse places.

Connectivity. One of the most basic principles of landscape ecology is the need to avoid the isolation of habitat, caused by fragmentation, splitting or attrition. Similarly, planners may emphasize the need for connectedness, applying the principle to streets, facilities, and the lives of residents, and building a case for physical planning based on promoting connection.[9] They may focus on providing alternative routes and access points through improved street networks, or they may draw attention to the size and shape of blocks that determine corresponding patterns of movement.

Enhancing connectivity may be as simple as delineating safe places to cross streets, calming traffic on busy thoroughfares, or instituting better pedestrian pathways. It is generally agreed that large-scale blocks, cul-de-sacs, and dendritic (branching, hierarchical) street systems are less likely to provide high levels of connectivity.

The SmartCode and Diversity

By examining the SmartCode in detail it is possible to see how a transect-based planning strategy can address each of these four basic design principles. Indeed, I believe the SmartCode goes much further in its support of social diversity than conventional zoning, or even other form-based or mixed-use zoning codes.

First, and most obviously, the transect allows for a diversity of housing types in each urban zone. Thus, the SmartCode specifically calls for a "range of housing types and price levels" within zones, intended to "accommodate diverse ages and incomes."

Such an unambiguous statement about diversity is unique, even radical, for a zoning ordinance. However, it is not completely open ended. Because each zone is designed to cohere to a given level of urban intensity, there are limits set on the range of housing types. For example, the Urban Center and Urban Core zones do not allow single-family houses, and the Sub-Urban zone does

not permit apartment buildings, or even duplexes. On the other hand, there is also proaction: the SmartCode specifies percentages of housing types required within each zone. In the General Urban zone, for example, a minimum residential housing mix of three types is required.

With regard to the second principle, the SmartCode encourages development of neighborhood facilities and services through an inclusive notion of permitted building functions in the three urban zones (T4, T5, T6), and to a more limited degree in the T3 Sub-Urban zone. The urban zones allow a variety of lodging, office, retail, and civic uses. In the Sub-Urban zone, mixed use is more controlled, but does permit corner grocery stores, small-scale lodging (such as a bed-and-breakfast inn), live-work units, and childcare centers. In addition, the "complete neighborhood," a fundamental unit of the SmartCode, is defined on the basis of whether it includes a "mixed-use center."

Third, the SmartCode is embedded with language about centers and edges. This is unusual among land-development codes, which are generally a-spatial—i.e., they do not explicitly consider the meaning and implication of spatial arrangements because they do not consider geographic dimensions that can't be categorized into discrete zones.

In comparison, the SmartCode's nested system of sectors, community types, neighborhoods, and pedestrian-sheds are conceptually centered and bounded. Community types are composed of pedestrian-sheds, which are themselves defined by the distance between a center and an edge. Urban places are planned and zoned according to types that are "clustered," "centered," or otherwise based on a centric neighborhood model, which has "a recognizable edge" that can "blend…without buffer." The SmartCode is further careful to conceptualize edges as integrative and synthetic, and the diagram of individual zones shows how one may bleed into another.

Finally, the SmartCode includes some very specific language about the importance of street connectivity. SmartCode policy is "that interconnected networks of thoroughfares should be designed to disperse and reduce the length of automobile trips," and that "all thoroughfares shall terminate at other thoroughfares." There are specifications about the size of blocks (kept small) and limitations on cul-de-sacs. Most importantly, connectivity has stature, reflected in the statement that in urban zones "the continuity of the urbanized areas shall take precedence over the natural environmental conditions…."

Application

Is it possible to envision the SmartCode being applied to strengthen areas that are already socially diverse? How, specifically, would the SmartCode help, given the design criteria discussed above?

In Chicago, as in many U.S. cities, social diversity is most characteristic of older, inner-ring suburbs. It is further recognized that many of these areas are currently in need of renewed planning attention.[10] Areas of three municipalities just outside of Chicago—Berwyn, Summit, and Calumet Park—can be used to demonstrate how an application of transect-based planning by means of the SmartCode may reinforce existing social diversity.

Some sense of the three target areas can be gleaned from 2000 Census statistics. The selected portion of Summit has a nearly even mix of owner-occupied and renter-occupied housing; it has income levels that are almost evenly distributed from high to low; and it is 21 percent non-Hispanic white, 22 percent non-Hispanic black, and 55 percent Hispanic. There is also a wide, evenly distributed range of population by age.

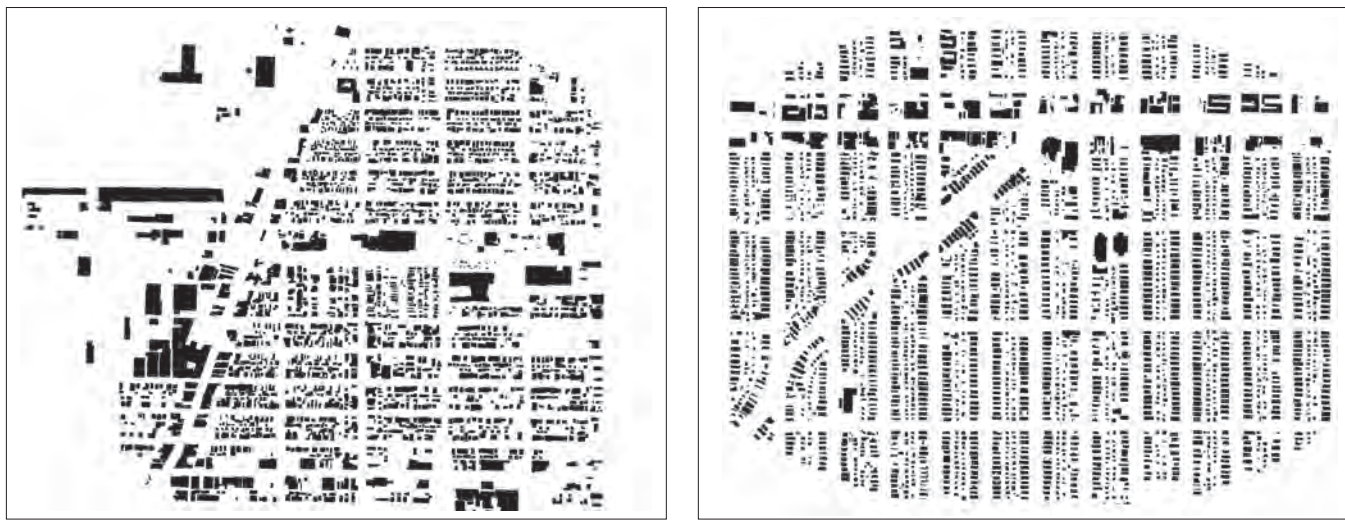
The selected areas of Calumet Park and Berwyn have a similar demographic profile in terms of income levels, age groups, and mix of owner- vs. renter-occupied housing. Only their racial composition is different. The selected area of Calumet Park is 10 percent non-Hispanic white, 58 percent non-Hispanic black, and 26 percent Hispanic. The area of Berwyn is 42 percent Hispanic, and 52 percent non-Hispanic white.

An examination of the morphology of these areas reveals the following design weaknesses, for which the SmartCode could be used to effect a range of design remedies.

The Summit Neighborhood. The figure-ground map of the selected section of Summit shows a predominantly residential area bounded by a strong western edge, which runs along a major highway. A commercial core of significantly larger structures runs perpendicular to the edge through the center of the selected area.

Two design strategies may be appropriate here. First, to create a viable center, the entire neighborhood would benefit from a stronger, more focused central place. Its residential areas are served by the commercial "main street," but the street is lined mostly by industrial and vacant buildings, and lacks strong spatial definition. The current urban fabric is disjointed, lacks central focus, and offers little support for social and economic interconnection.

To help integrate the industrial buildings along the main axis, a core area could be designated at the intersection of the neighborhood's major north-south axis. The



main axis also requires a better defined streetscape, one that integrates the commercial and industrial functions on either side of the street. Ultimately, these changes could also help dampen the negative influence of the highway to the west and better integrate the surrounding residential fabric.

The Berwyn Neighborhood. The figure-ground drawing of the selected section of Berwyn shows a strong grid pattern and a dominant central commercial street. However, one potential weakness in this neighborhood is the homogeneity of its pattern of land uses. Nonresidential uses are linearly distributed along the main arterial, but the rest of the neighborhood is almost solidly residential. The lack of land use mix may mean that too much pressure is being put on the commercial corridor. The strong external linkage of this corridor may mean it is extremely busy and that its neighborhood-level functionality is being compromised.

One strategy for this area would be to form alternative nodes to absorb new growth, interspersed throughout the relatively homogenous residential fabric. The blocks surrounding selected nodes could then be encouraged to gradually and organically develop a more mixed functionality—not necessarily retail, but neighborhood-serving. Locations would be chosen that could successfully anchor the mix, such as around existing institutional buildings.

The Calumet Park Neighborhood. The figure-ground map shows that this section of Calumet Park has a mix of residential types, but that it is poorly integrated. In particular, large apartment buildings in superblocks, focused internally, sit next to much smaller units on traditional blocks. While these disparate residential types may be "integrated" in the sense of being contained within one neighborhood, their relation to each other appears awkward and tenuous.

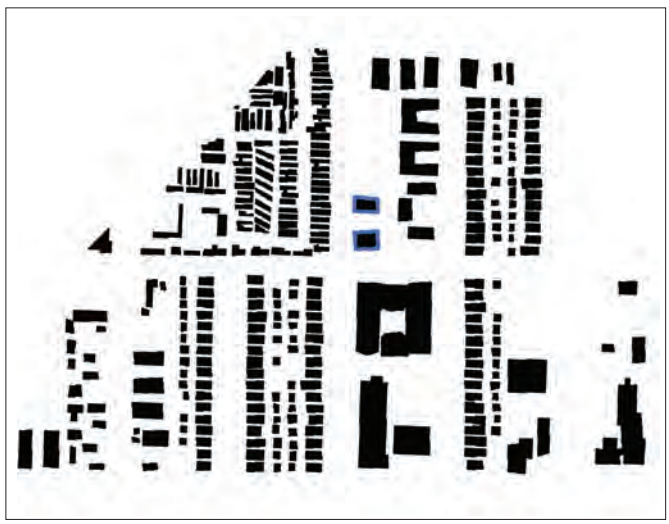
There is a need to create better connectivity in this neighborhood, particularly between its variegated housing forms. Connections could be improved by paying more attention to undefined vacant land that seems to have emerged between housing types. These transitional areas appear neglected and do not effectively create a physical or perceptual linkage between the diverse housing types around them. Such areas should be developed into useful public space, with adjacent lots simultaneously improved to generate diverse activities. The creation of public open space can be a good way to link diverse housing types, but it should be recognized that development of active, adjoining uses is also important for supporting the linkage.

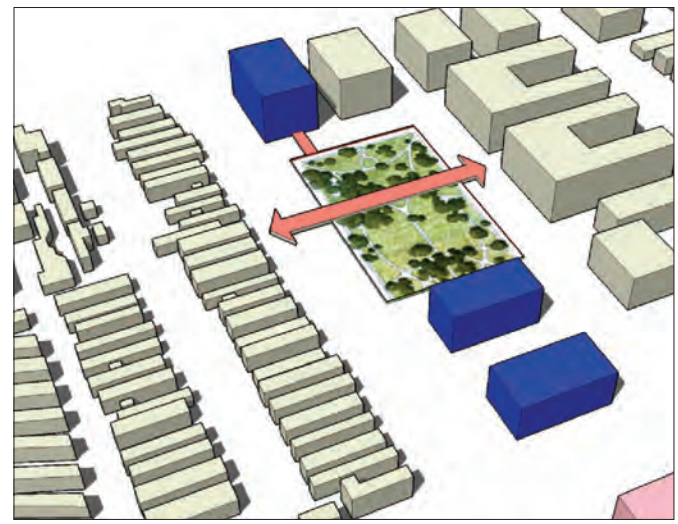
Can the SmartCode Support Diversity?

The design needs of these three socially diverse areas can be summed up as follows: strengthen centers and address strong edges (Summit); allow more mixed-use and improve the distribution of neighborhood services and facilities (Berwyn); and better connect and integrate a mix of housing types (Calumet Park).

Unlike more conventional zoning codes, the SmartCode has the potential to address these diversity-building requirements directly. For example, in Summit, the

Above: The Summit neighborhood (left). The Berwyn neighborhood (right). Drawing by author.





strengthening of centers and edges will require attention to the design of blocks, buildings and thoroughfares. The SmartCode contains language about physical definition of space, the importance of public and private frontages, and the need to maintain network connectivity. The inclusion of these design requirements in a land-regulation code can be interpreted as a strategy for nurturing a physical infrastructure that will support social diversity.

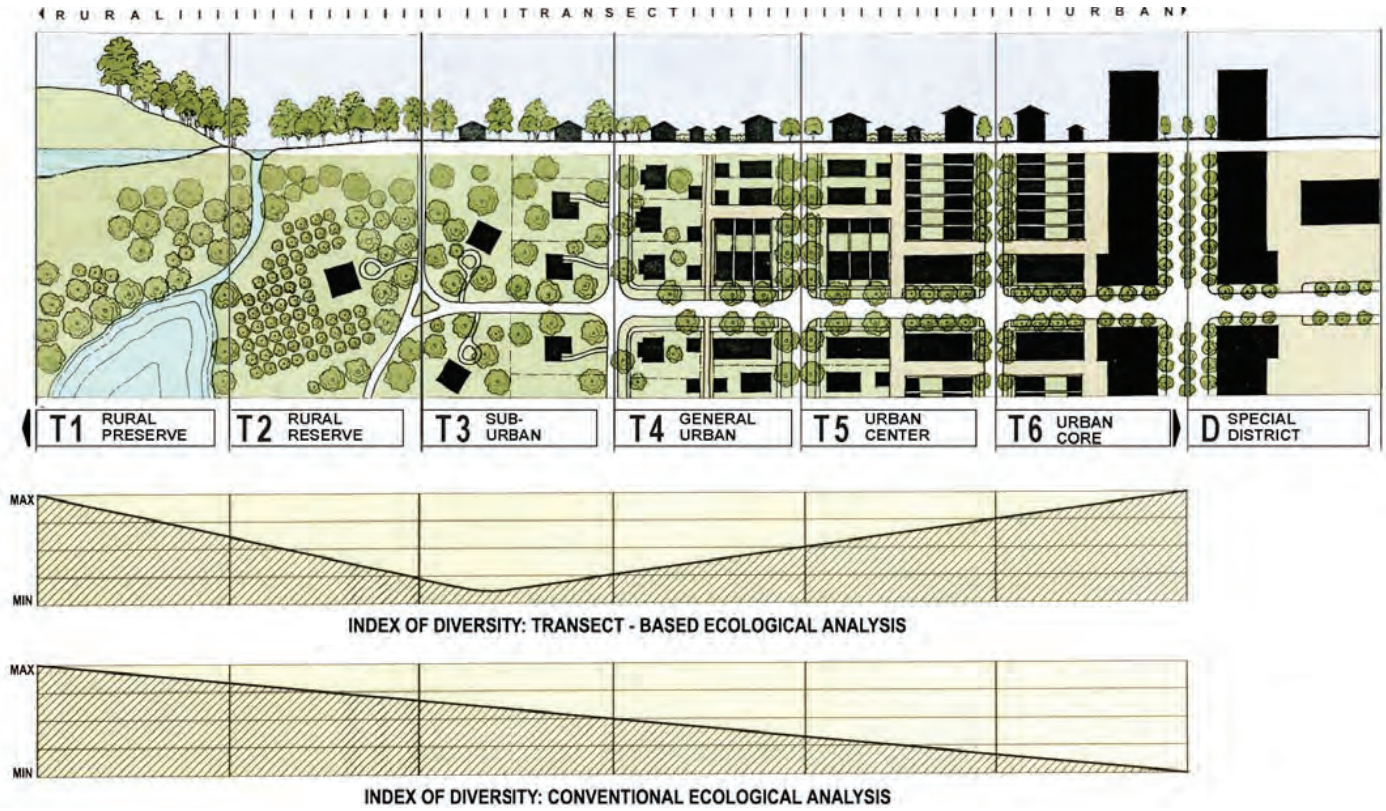
To foster mixed use in selected nodes in Berwyn—to make this mix work in a nondisruptive way—there is a need to establish a well-positioned (that is, widely accessible) network of nonresidential uses, paying particular attention to the design of immediately surrounding areas. SmartCode provisions for maintaining appropriate setbacks, building type, and height could be useful for this purpose. The introduction of nonresidential buildings in a residential fabric can appear abrupt and nonconforming, and may be resisted in the absence of such design control.

Finally, in the Calumet Park neighborhood the SmartCode has several provisions that could help increase connectivity and the integration of different housing types. As new housing units are added, vacant lots revitalized, and new connections made, the SmartCode will help make the integration of diverse urban elements something to embrace.

For a century, regulation of the built environment has consciously supported separation—of people and of land use. Sustaining social diversity requires just the opposite—a built environment that mixes, connects and integrates. By encouraging an alternative social ecology based on the rural-urban transect, the SmartCode seems to offer a viable way to redress planning's conventional focus on separation, providing instead a viable context for diversity.

Of course, the SmartCode has not yet been tested. But I find it hopeful that, in addition to its explicit coding for mixed housing types, mixed uses, and connectivity across a range of urban intensities, the SmartCode is explicitly based on an integrative theory. The transect emulates a natural, biologically inspired notion of complexity that avoids segregated order. This theoretical grounding will be necessary to counter the rootedness of social separation. Translated to a system of land regulation through the SmartCode, the transect may be just the kind of driving force needed to establish a regulatory system that supports social diversity in explicit ways.

Above: The Calumet Park neighborhood (left). Mixed-use buildings could anchor and activate the area between diverse housing types (right). Drawings by author.



Notes

1. Michael Sorkin, "Introduction: Traffic in Democracy," in Joan Copjec and Michael Sorkin, eds., *Giving Ground: The Politics of Propinquity* (London: Verso, 1999), p. 2.

2. Stubben's essay on this may be found in Benjamin Marsh's *An Introduction to City Planning* (New York: Arno Press, 1974, Reprint of 1909 ed., published by the author).

3. Eldridge Lovelace, *Harland Bartholomew: His Contributions to American Urban Planning* (Urbana, IL: University of Illinois Press, 1992), p. 37.

4. Thomas Adams, *Outline of Town and City Planning: A Review of Past Efforts and Modern Aims* (New York: Russell Sage Foundation, 1935), p. 302.

5. See Peter Marcuse, "Enclaves Yes, Ghettoes, No: Segregation and the State," paper presented at the International Seminar on Segregation in the City, July 26-28, 2001, at the Lincoln Institute of Land Policy.

6. Philip Nyden, Michael Maly, and John Lukehart, "The Emergence of Stable Racially and Ethnically Diverse Urban Communities: A Case Study of Nine U.S. Cities," *Housing Policy Debate*, Vol. 8, No. 2, pp. 491-533; and Dina R. Rose, "Social Disorganization and Parochial Control: Religious Institutions and Their Communities," *Sociological Forum* 15 (2000), pp. 339-58.

7. For example, see Lewis Mumford, *The Urban Prospect* (New York: Harcourt Brace Jovanovich, 1968), p.71; Mike Greenberg, *The Poetics of Cities: Designing Neighborhoods that Work* (Columbus: Ohio State University Press, 1995); C. Alexander, H. Neis, A. Anninou, and I. King, *A New Theory of Urban Design* (New York: Oxford University Press, 1987), p. 95.

8. Wenche E. Dramstad, James D. Olson, and Richard T.T. Forman, *Landscape Ecology Principles in Landscape Architecture and Land-Use Planning* (Cambridge, MA: Harvard University and Island Press, 1996).

9. See, for example, Philip Langdon, *A Better Place to Live: Reshaping the American Suburb* (Amherst: University of Massachusetts Press, 1994). See also Lewis Mumford, "Planning for the Phases of Life," in *The Urban Prospect* (New York: Harcourt Brace Jovanovich, 1949), p. 38.

10. See, for example, Myron Orfield, *American Metropolitics: The New Suburban Reality* (Washington, D.C.: Brookings Institution Press, 2002).

Above: Transect-based diversity analysis combines both natural and social factors. While natural diversity is at its highest in T1, social diversity is usually highest in T6. The lowest combined level is in the T3 zone. Conventional ecological analysis fails to account for increases in social diversity. However, the relative compactness, walkability, and transit friendliness of the T6 zone allow a social diversity that makes it a better exchange for natural lands on a regional basis. Drawing courtesy of Duany Plater-Zyberk & Company.

Contributors

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Richard A. Hall, a registered transportation engineer, is President of Hall Planning and Engineering (HPE). Beginning with a simple traffic study for Seaside in 1984, the firm now produces New Urbanist transportation plans for leading national designs firms. Work by the firm prioritizes urban design/vision in an effort to achieve optimal sidewalk, parking, and traffic designs.

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Lisa Silvestri was born and raised in New Orleans. She has lived in New York for the last 26 years and has worked in many aspects of design and photography. Her photography can be seen in *Visions of Mary* (Abrams, 2004), *Latina* magazine, and various other publications.

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The Elm Street Program

Robert Freeman



As a Pennsylvania state legislator, I have had a long-term commitment to protecting and revitalizing our state's older communities, including my home town of Easton, located sixty miles north of Philadelphia. Viewed through the prism of the rural-urban transect, Pennsylvania's settlement pattern once included a broad mosaic of distinctive places: largely untouched natural environments, rich agricultural regions dotted with villages and small towns, small to medium-sized cities that serve as county commercial centers, and larger cities such as Pittsburgh and Philadelphia in industrial regions and along major metropolitan corridors. Over the last few decades, however, this historic pattern of differentiated environments has been transformed by sprawl development, which has blurred the transition from town to country and sapped older urban areas of vitality.

Above: A typical Elm Street in Pennsylvania. Baltimore Ave. in Philadelphia. Photo by Sandy Sorlien.

Although such suburban-style development now predominates throughout America, its emergence had more to do with the unforeseen consequences of government policies than market forces or conscious consumer choice. For example, the Federal Housing Administration and Veterans Administration loan programs of the 1940s dramatically altered banking practices and construction requirements. Making home-mortgage interest tax deductible also provide a huge subsidy for suburban single-family home construction. And single-use zoning and construction of the Interstate Highway system further fueled sprawl and urban disinvestment. Today institutionalized govern-

ment policies and practices continue to perpetuate this form of development.

However, the one public policy that proved most devastating to America's towns and cities, was urban renewal. In *The Death and Life of Great American Cities*, Jane Jacobs outlined both the folly and tragedy of this policy, which emerged from the well-intentioned but misguided slum-clearance initiatives of the Great Depression to tear apart the finely woven fabric of many cities.

Using the transect as a perspective, one can see how Urban Renewal and other more recent initiatives have severely damaged urban neighborhoods by introducing anti-urban models. First came the now-infamous tower-in-the-park public housing projects. These were followed by all manner of suburban building typologies with inappropriate setbacks and excessive surface parking that turned formerly vital urban blocks into windswept wastelands. The devastating effects of suburban sprawl and misguided redevelopment on the older communities in our state has been clearly identified in the Brookings Institution study "Back to Prosperity: A Comprehensive Agenda for Renewing Pennsylvania."

Since government policy got us into this mess, it will take remedial government action to get us out. My Elm Street Program, enacted in Pennsylvania in 2004, provides a way to reclaim our older urban communities. It is designed to target older urban residential neighborhoods for revival, undo the damage done by earlier renewal and suburbanization efforts, and provide the resources, organization and direction to bring stability and vitality back to our cities. Pennsylvania's urban neighborhoods were once great places to live, work, socialize, and raise a family. They can be great places once again.

Inspiration for Elm Street

Inspiration for my Elm Street concept came from several sources, including Pennsylvania's Main Street program. Building on a national initiative, Pennsylvania has a wonderful Main Street Program that is breathing new life into some of our older downtowns. Through the use of facade grants, streetscape improvements, and the oversight and initiative of professional Main Street managers, it is bringing a much-needed facelift to many older downtowns, positioning these once-vibrant districts to attract new businesses.

One shortcoming of the Main Street Program has been its singular focus on commercial property, however. It has been largely blind to how the success of an urban commercial district is inextricably related to that of the residential neighborhoods surrounding it. Such residential neighborhoods need renewed attention if we are to complete the revival of older urban areas. No commercial core can long survive unless the residential fabric around it is also healthy, stable and successful.

One of the other great inspirations for my Elm Street Program was my experience growing up in Easton's ethnically and racially diverse West Ward. That experience taught me the best and most enduring lessons of community. In those days the West Ward was a place of corner stores and neighborhood schools where people knew their neighbors and looked out for each other. My younger brother and I could walk downtown to movie theaters, lunch counters, five-and-dimes, and local department stores without parental supervision. Although today the old neighborhood has changed somewhat, much of the West Ward remains a pedestrian-friendly area with all the essential ingredients to foster a sense of place.

However, it was another Easton neighborhood that taught me the important connection that needs to exist between a commercial downtown and its residential neighborhoods. Easton once had a close-knit Lebanese-American neighborhood adjacent to its business district. Home to hundreds of families and scores of family-owned businesses, this area had housed a succession of immigrant groups over the years, who later moved on to other neighborhoods as their fortunes improved. Yet as long as this neighborhood remained occupied, providing a built in customer base for downtown stores, local merchants could survive competition from the newly built shopping centers on the edge of town.

Unfortunately, this neighborhood was the target of Urban Renewal and was torn down and cleared away for new development. Today it is the site of a worn and shabby suburban-style motel, a defunct multiscreen movie house, fast-food restaurants, and a dingy strip mall. Surrounded by parking lots, these mostly one-story, single-purpose structures fail to relate to the city around them.

The lesson learned was that older downtown business districts need stable adjacent residential neighborhoods to ensure their stability. This is the essence of the Elm Street concept.

Elements of the Program

Like its predecessor, the Main Street Program, Elm Street focuses on physical improvements, and utilizes a professional manager to coordinate the efforts of local officials, community and business organizations, and the public to formulate and implement a revitalization plan.

The Elm Street designation is available to any "geographic area which has consisted of buildings and structures for housing individuals and families." However, such a neighborhood must have existed since before 1961, and priority is given to neighborhoods that existed prior to 1951. A "mixed-use" neighborhood also qualifies. The area must also be in "close proximity" to a Main Street Program project or an existing commercial district. While the legislation does not define "close proximity," the Department of Community and Economic Development, which administers the program, has set this at an approximate distance of up to half a mile from the commercial district. DCED and the Pennsylvania Downtown Center, which is assisting with the program, have further recommended that the neighborhood take in an area roughly half a mile from center to edge, or one mile across.

To qualify a neighborhood for Elm Street designation, a municipality or its designated agency must meet several conditions: it must identify the boundaries of the target neighborhood; it must demonstrate that the neighborhood is in need of revitalization; it must offer evidence of support for the program by local residents, merchants, and government officials; and it must provide a 10 percent minimum match for any grant funding (although this can be reduced or waived if a hardship exists[1]).

Grant Types

The program encompasses a number of different grant types: residential reinvestment grants for specific physical improvements; operational grants to help hire an Elm Street manager; and planning and development grants for a variety of other activities.

Among the types of infrastructure and structural needs that may qualify for residential reinvestment grants are street improvements, streetlights, trees, building exteriors, sidewalks, and other pedestrian features. Communities do not need to have full Elm Street designation to qualify for these; they simply need to meet the Elm Street criteria. Such improvements are very helpful in changing a neighborhood's image, encouraging privately funded renovations and infill construction, and helping market the area to prospective new residents.

Administrative grants are used to cover operational and administrative costs associated with a professional manager for up to five years, while planning grants may be used to help prepare applications for full-fledged Elm Street designation.

Planning and development grants are also available in a number of key areas. These include marketing and promoting urban residential living; leveraging additional private and public investments; promoting homeownership and other housing options; addressing blight, crime, employment opportunities, and public services and amenities; and achieving consistency with existing commercial and residential revitalization plans.

Of the above areas, promotional and marketing activities can be extremely useful in helping to overcome neighborhood image problems in order to attract new residents and investment. Neighborhood-wide marketing and promotion can be effective in achieving a critical mass of renovations and interest in a targeted neighborhood, comparable to the technique of packaging a new suburban development.

Promoting homeownership is also essential. Most Elm Street-type neighborhoods have large numbers of renters, and a high percentage of absentee landlords may lead to maintenance problems that make it difficult to attract new residents and investment. By contrast, homeowners normally have a stake in the success of a neighborhood and are more willing to get involved in revival efforts. Care must be taken, however, not to displace existing low-income residents. Those who have stayed in a troubled neighborhood through hard times deserve to be rewarded for their perseverance. Ideally, an Elm Street manager can be a broker between landlords interested in selling and long-term tenants interested in buying.

Consistency with existing revitalization plans is important because it can help promote links between commercial districts and surrounding residential neighborhoods—a core principle behind the Elm Street concept.

A Professional Manager

An important figure in the program is the Elm Street manager. This position can be full or part time. The Elm Street manager may also be designated as an assistant to an existing Main Street manager in the community.

In addition to implementing the five-year program for a full-fledged Elm Street neighborhood, the Elm Street manager may perform other useful services. One such critical task may be to review the condition of educational and recreational facilities. Attractive parks can provide focal points for neighborhood interaction, enhance desirability and property values, and show tangible signs of a turnaround. Likewise, a neighborhood school, can serve as a community anchor and attract families who prefer small, personalized learning environments to large suburban campuses. Such a school can also serve as a neighborhood center, facilitating the community-building process.

The Elm Street manager can also help determine if the local comprehensive plan, zoning, and other land use ordinances foster neighborhood vitality. Such documents should encourage and require a mix of commercial, civic, employment, and residential uses, with particular attention to diversity of housing options. Mixed use promotes vitality by providing more opportunities for neighbors to interact. Random encounters at coffee shops, restaurants, corner stores, and neighborhood taverns encourage neighbors to get to know one another, share concerns, and act collectively to address problems.

A review of zoning ordinances can be particularly useful. Too many urban communities have adopted boiler-plate suburban zoning codes with setbacks and parking requirements that make little sense in an urban setting. Such codes can undermine pedestrian-friendly qualities and destroy the scale and relationship of urban buildings to streets. Single-use zoning also undermines efforts to create lively, mixed-use neighborhoods.

The rural-urban transect provides a framework for sorting out the details of streets, buildings, public spaces, and streetscapes that distinguish urban neighborhoods from suburban ones. Adoption of the Smart Code may further codify needed requirements for infill buildings. Such an understanding has long been absent from municipal zoning in Pennsylvania.

Areas of Emphasis

Overall, the Elm Street guidelines identify five program areas.

The first involves building consensus and cooperation among groups to formulate a vision and carry out the Elm Street mission. The effort here is to foster partnerships, create a volunteer base, engage stakeholders, disseminate information, and tap funding sources.

The second involves successful neighborhood marketing. This could be accomplished through special events, the creation of promotional materials, marketing agreements with real estate agencies, or commercial promotions.

The third seeks to enhance a neighborhood's appearance by capitalizing on its unique urban assets. Activities here might include a baseline property inventory, survey of renovation and code-compliance needs, assessments of public improvement needs, revisions of zoning and other land-use ordinances, and reviews of parking, traffic-calming, and pedestrian-safety needs.

The fourth program area involves strengthening the quality of existing housing while diversifying its type and income mix. This might involve demographic, market and architectural research. Efforts could also be made to promote a mixed-use strategy for developing vacant property, enforcing building and safety codes, and increasing homeownership.

The final area deals with encouraging clean, safe and green activities. This might include evaluating the maintenance needs of public spaces, inventorying open space and recreational areas, assessing both perceived and real crime rates, and developing positive new initiatives such as community policing, block-watch efforts, community gardens, and the construction of new neighborhood parks.

Greatness Again

To my knowledge, Elm Street is the first program of its kind in the nation. Interest in it was initially so great that a 2004 preapplication meeting had to be moved to a larger auditorium. Consensus among the more than 400 people who attended was that the program was long overdue and just what Pennsylvania's older communities needed. To date, 23 communities have received Elm Street planning grants, more than two dozen have received Elm Street designation, and many more are actively seeking it.

Wherever I speak on the program it seems to resonate with people. I attribute this enthusiasm in part to the program's name. "Elm Street" readily conjures up Norman Rockwell images of small-town America or visions of leafy residential blocks in the many small to mid-size cities that define the Keystone State.

The Elm Street Program will no doubt need further refinement as we gain more experience with it. But I believe it represents the missing piece in the puzzle of urban revitalization. With policy approaches that are sensitive to urban needs, we can begin to reclaim the diverse, dynamic neighborhoods of our older communities.

Elm Street neighborhoods once embodied all the principles of contemporary initiatives such as Smart Growth, New Urbanism, transit-oriented development, and livable communities. They were great places once. With some help from well-reasoned, pro-urban policy making, they can be great again.

Note

1. A hardship is deemed to exist if a municipality was declared financially distressed under the Municipalities Financial Recovery Act; the matching requirement exceeds 5 percent of its operating budget; the target neighborhood participates in Pennsylvania's Weed and Seed Program; or a minimum of 20 percent of its population falls below 150 percent of the federal poverty level.

Seeking Urbane Parking Solutions

Brian O'Looney and Neal Payton

> *The automobile as an object has been our industrial civilizations most significant product…. Its side effects in terms of mass consumption are enormous. The infrastructures of the land and the urban environment have suffered from a radical upheaval, the historical city centres have been jeopardized by it, the whole system of transporting goods and people has been revolutionized and even our vision of things has been transformed, both subjectively in our mode of perception and objectively in changes to the landscape.*
> *—Vittorio Gregotti, 1978*

From the moment private automobiles first appeared on city streets, parking has posed a major design problem for the public realm. In the first decades of the twentieth century, the few automobiles that existed were parked curbside, where horses used to be tethered. But as vehicle use became more widespread, the need for parking could not be solely accommodated there, and jurisdictions began to adopt requirements to store vehicles on private land.

As experience now shows, off-street parking alleviated the initial congestion caused by haphazard parking, but has not necessarily improved the quality of public spaces. In residential districts, for example, streets are often marred by repetitive curb cuts, paving for driveways, and monotonous walls of garage doors.

Today automobiles are stored in a variety of ways, each with different costs and impacts. In seeking parking solutions in service of the public realm, the transect allows consideration of appropriate solutions at a variety of levels. With reference to the zones described in the SmartCode, the discussion that follows (condensed in the accompanying chart) consider the place of parking from the lowest levels of density to the highest.

Parking for Natural Areas (T1)

In areas approximating or approaching wilderness conditions, parking will typically be limited to surface lots. Ideally, such parking is located so as to cause minimal impact to the environment—adjacent to access roadways, and in areas with little visual presence.

Casual, or circumstantial parking, say between existing trees, can be designed to virtually disappear when no cars are present. Optimal solutions include permeable paving such as well-drained gravel or decomposed granite, which allows precipitation to be absorbed locally. Buried perforated-pipe drainage systems can assist in minimizing erosion during downpours.

Rural and Sub-Urban (T2 and T3) Parking Solutions

New Urbanists have championed the alley to improve the quality of the public realm. Alleys typically reduce the amount of paving required per block by replacing and consolidating paving dedicated to driveways.

While enclosed garages are demanded by the marketplace, the use of alleys can help keep street frontages free of driveways, curb cuts, and garage doors, making them more hospitable to pedestrians. Meanwhile, curbside parallel parking (unimpeded by curb cuts) can still serve a large percentage of a neighborhood's parking load and provide a safety barrier between moving vehicles and pedestrians.

In those rare cases where alleys are difficult to implement, well-designed stem driveways can access garages or parking areas toward the rear of a lot. In corner or "key" situations, garages are ideally located in an outbuilding, off a secondary street. In such cases, the SmartCode recommends that garages be located at least twenty feet back from the wall established by the facades along the primary street, in an area it calls the "third lot layer."

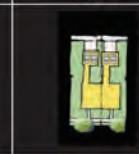
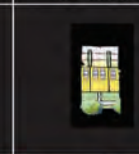
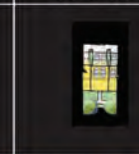
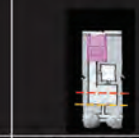
Building typologies in suburban residential areas typically include single-family houses, and, in more intensive areas, duplexes and two- and three-story townhouses. Alley-accessed parking and parallel parking can serve all these typologies.

General Urban Zone (T4) Parking Solutions

More intensive residential environments may range from townhouses and occasional stacked maisonettes (also called two-over-twos) to a variety of small and medium-sized apartment buildings (from eight-unit walkups to courtyard buildings). While townhomes may rely on an alley-accessed garage or tuck-under arrangements, multifamily buildings demand more intensive parking solutions, occasionally relying on tandem solutions—but often utilizing surface parking lots.

As a parking solution, surface lots often destroy the sense of enclosure within the public realm, allowing "civic rooms" to lose definition. For cost reasons (see sidebar) they are also rarely implemented with a level of detail that befits a public plaza. For this reason, the SmartCode proposes that surface lots be separated from primary frontages by "liner" buildings and be screened from secondary frontages when such buildings are not feasible. Screening devices such as fences, walls or hedges are best built coplanar with adjoining building facades to mask the presence of lots behind them.

Surface parking poses one additional problem for the design of multifamily buildings: the ballooning of block

Smartcode Transect Zone	T2	T3		T4		T5
Type	1/4 A.C. Large Lot	Neighborhood Lot	Small Lot	Duplex	Townhouse	Townhouse
Lot Configuration						
Image						
Building Height	2-Story	2-Story	2-Story	2-Story	2-Story	3-Story
Gross Density	3 D.U. / A.C.	5 D.U. / A.C.	7.5 D.U. / A.C.	9.5 D.U. / A.C.	10.5 D.U. / A.C.	17 D.U. / A.C.
Building Construction	Wood	Wood	Wood	Wood	Wood	Wood
Construction Cost (2002)	$195,000/D.U. $60-75/gsf	$175,000/D.U. $60-75/gsf	$140,000/D.U. $60-75/gsf	$119,000/D.U. $60-75/gsf	$119,000/D.U. $60-75/gsf	$185,000/D.U. $65-80/gsf
Parking Location Third Layer Second Layer						
Parking Type	Driveway accessed Garages	Primarily Alley accessed Garages	Alley accessed Garage	Alley accessed Garage	Alley accessed Tuck Under	Alley accessed Tuck Under/Tandem
Parking Layer	3rd recommended	3rd Layer	3rd Layer	3rd Layer	3rd Layer	3rd Layer
No. Pkng. Spaces/SF (D.U.)	2 Sp./3000 sf (1 D.U.)	2 Sp./2500 sf (1 D.U.)	2 Sp./2000 sf (1 D.U.)	2 Sp./1700 sf (1 D.U.)	2 Sp./1700 sf (1 D.U.)	2 Sp./3000 sf (1 D.U.)
Cost per Space (2002)	$9,000-$15,000/space	$9,000-$15,000/space	$9,000-$15,000/space	$9,000-$15,000/space	$8,000-$14,000/space	$6,000-$12,000/space
Minimum Block Size	N/A	130'x220'	100'x220'	90'x220'	70'x180'	70'x180'

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Cost information throughout this article purposely antedated from relatively stable 2002 Washington DC market figures - included for comparison only.

sizes. A typical double-loaded four-story apartment building designed to completely surround the required amount of surface parking would create a block 735 by 835 feet in size! This is unacceptable in well-planned pedestrian-oriented communities, where neighborhood permeability, and therefore, smaller block perimeters are goals.

Given the difficult economies of parking, when building small, surface-parked apartment buildings, it is better to mix them on blocks with less parking-intensive residential building types like townhouses or live-work units.

Urban Center, Core and Special District (T5 and T6) Parking Typologies

Parking strategies become increasingly difficult at higher densities of the transect, but solutions based on careful layout and planning can minimize impacts on the public realm.

At the transitional edge between residential and mixed-use/commercial zones, multifamily parking requirements may be managed using what is often referred to as the "Texas Donut." These are unadorned parking decks bordered on two sides by a 10-15 foot zone for open ventilation, and wrapped on all four sides by 35-40 foot deep four-story wood-frame liner residential buildings. Texas donuts as small as 220 by 246 feet have been constructed, but economic efficiencies are gained when the blocks are roughly twice that size (220 by 380 feet), and when double-loaded wings are added to the basic configuration.

To create a pleasant pedestrian realm within commercial environments, the ideal solution is to bury the parking underground. In established communities where land values are high, such as Washington, D.C., this has been done for decades. However, the cost of underground parking is often prohibitive, even in many close-in suburbs.

Structured parking is also rarely an option in the initial phases of a new development—particularly when it must begin life competing with the suburban strip-center paradigm. Local government cooperation can help through tax increment financing (TIF) and public improvement districts (PIDs). But it is often left to the designer to creatively manage parking without financial assistance, and without the initial option of structured parking. Shared parking agreements may also be negotiated between retail and office uses, potentially allowing parking ratios to exceed one space for every 300 square feet.

Smartcode Transect Zone	T4			T5		
Type	Stacked Maisonette/ 2 over 2	Live/Work	Charleston 3 Unit	Manor/Small Apt	Medium Apartment	Texas Donut
Lot Configuration						
Image						
Building Height	3 to 3-1/2-Story	3-Story	3-Story	2 to 2-1/2-Story	3-Story	4-Story
Gross Density	22 D.U. / A.C.	20 D.U. / A.C.	24 D.U. / A.C.	26 D.U. / A.C.	28 D.U. / A.C.	55 D.U. / A.C.
Building Construction	Wood	Wood	Wood	Wood	Wood	Wood
Construction Cost (2002)	$85,000/D.U. $65-85/gsf	$130,000/D.U. $65-85/gsf	$125,000/D.U. $65-85/gsf	$80,000/D.U. $65-85/gsf	$75,000/D.U. $65-85/gsf	$85,000/D.U. $85-100/gsf
Parking Location (Third Layer / Second Layer)						
Parking Type	Alley accessed Tuck-under/Tandem	Alley accessed Tuck-under/Tandem	Alley accessed Tuck-under/Tandem	Surface Lot/ Tuck-Under	Mid-block Surface Lot	Embedded 5 Level Parking Deck
Parking Layer	3rd Layer	3rd Layer	3rd Layer	3rd Layer w/streetscreen	3rd Layer w/streetscreen	3rd Layer w/Liner
No. Pkng. Spaces/SF (D.U.)	2 Sp./1100 sf (1 D.U.)	2 Sp./1900 sf (1 D.U.)	2 Sp./1900 sf (1 D.U.)	2 Sp./1150 sf (1 D.U.)	2 Sp./1500 sf (1 D.U.)	1.5 Sp./1300sf (1 D.U.)
Cost per Space (2002)	$6,000-$12,000/space	$6,000-$12,000/space	$6,000-$12,000/space	$6,000-$12,000/space	$3,000-$8,000/space	$10,000-$15,000/space
Minimum Block Size	70'x180'	80'x200'	90'x200'	140'x200'	200'x150'	200'x200'

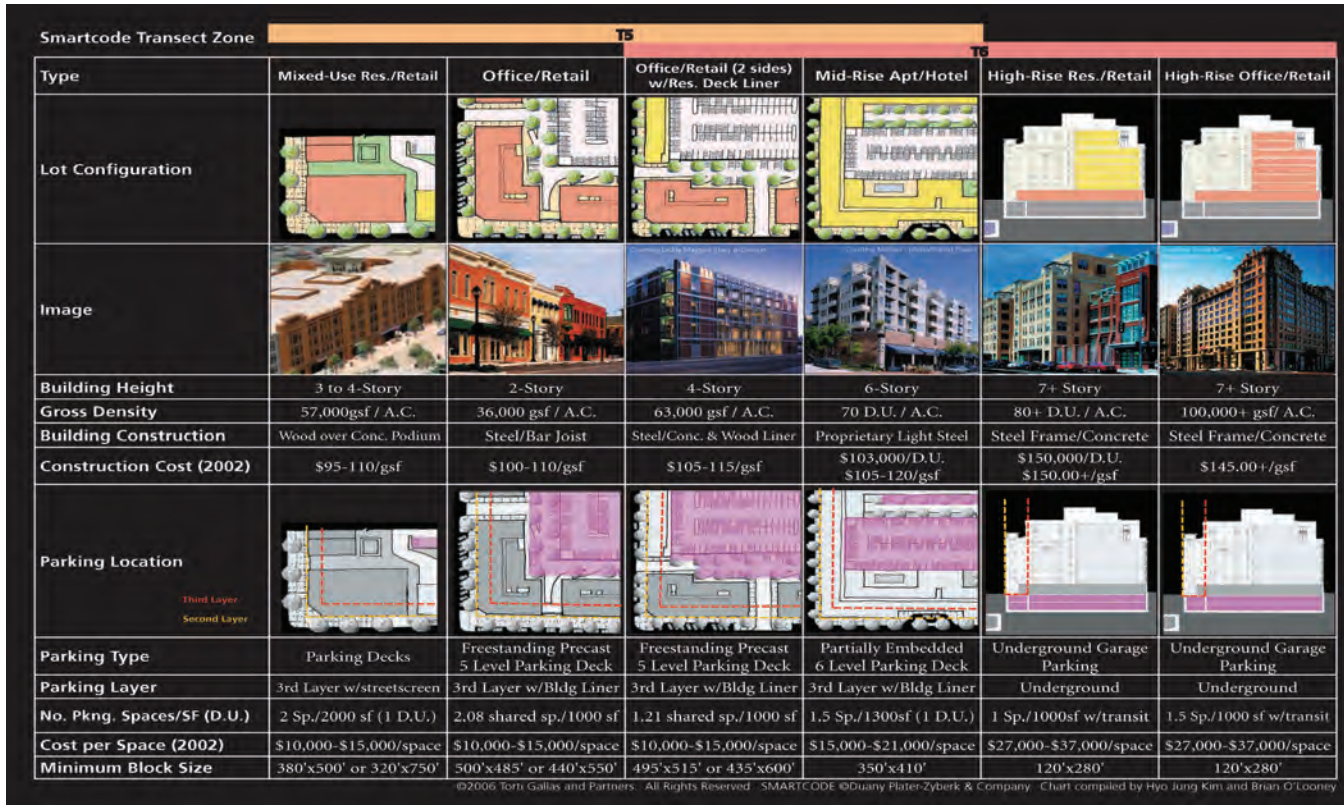
©2006 Torti Gallas and Partners. All Rights Reserved. SMARTCODE ©Duany Plater-Zyberk & Company. Chart compiled by Hyo Jung Kim and Brian O'Looney
A number of creative, site-specific parking solutions in the 20-30 dwelling unit/acre range are not included due to space constraints

Today the majority of new pedestrian-oriented single-use commercial districts and "lifestyle centers" relegate parking to large decks at the least desirable border of their sites—a solution that ultimately limits their direction for future growth. The structural economics of parking decks may also have negative impacts on the redevelopment of existing urban centers. For example, Fort Worth's 200x200-foot preautomotive grid is today assailed by economically-sized parking structures that must bridge blocks too small to fit them, and that display large unadorned facades to the public realm.

New pedestrian-oriented districts of entirely commercial space pose great design challenges, since office and retail uses require much more parking per square foot than residential. One model is Southlake Town Square, where the City of Southlake had prohibited residential uses in the plan for its two-story commercial center (although this has recently changed). Cognizant of the parking load this directive imposed, block arrangements were studied by David M. Schwarz/Architectural Services that managed the vehicle demands yet placed the pedestrian first. Ultimately, an alley system was created to access an efficient, unadorned parking deck at the center of each block.

The Southlake design allows individual blocks to accommodate their parking load without sacrificing any prominent public street facade to a garage or parking lot. It also allows the three-quarters of building facades that do not face these streets to be built more economically. Meanwhile, the alley entrances create physical separations between buildings, allowing all offices to have windows, and the buildings to be built without party walls according to the least expensive construction type allowed by the building code (in this case Type III, unsprinklered).

As an incremental plan for urban development, the arrangement has the additional benefit of allowing two sides of each block to be built initially without a parking deck. Two adjacent blocks then create what the architect calls an "attachable urban fragment." A project may thus begin with an urban place, which provides the "critical mass" from which to grow. As that place is extended, the buildings that frame urban additions of streets and squares will also screen the required surface parking load. Eventually structured parking decks can be added, when the project has entered its adolescence and has enough economic energy to pay for them.



Smartcode Transect Zone	T5			T6		
Type	Mixed-Use Res./Retail	Office/Retail	Office/Retail (2 sides) w/Res. Deck Liner	Mid-Rise Apt/Hotel	High-Rise Res./Retail	High-Rise Office/Retail
Lot Configuration						
Image						
Building Height	3 to 4-Story	2-Story	4-Story	6-Story	7+ Story	7+ Story
Gross Density	57,000gsf / A.C.	36,000 gsf / A.C.	63,000 gsf / A.C.	70 D.U. / A.C.	80+ D.U. / A.C.	100,000+ gsf/ A.C.
Building Construction	Wood over Conc. Podium	Steel/Bar Joist	Steel/Conc. & Wood Liner	Proprietary Light Steel	Steel Frame/Concrete	Steel Frame/Concrete
Construction Cost (2002)	$95-110/gsf	$100-110/gsf	$105-115/gsf	$103,000/D.U. $105-120/gsf	$150,000/D.U. $150.00+/gsf	$145.00+/gsf
Parking Location (Third Layer / Second Layer)						
Parking Type	Parking Decks	Freestanding Precast 5 Level Parking Deck	Freestanding Precast 5 Level Parking Deck	Partially Embedded 6 Level Parking Deck	Underground Garage Parking	Underground Garage Parking
Parking Layer	3rd Layer w/streetscreen	3rd Layer w/Bldg Liner	3rd Layer w/Bldg Liner	3rd Layer w/Bldg Liner	Underground	Underground
No. Pkng. Spaces/SF (D.U.)	2 Sp./2000 sf (1 D.U.)	2.08 shared sp./1000 sf	1.21 shared sp./1000 sf	1.5 Sp./1300sf (1 D.U.)	1 Sp./1000sf w/transit	1.5 Sp./1000 sf w/transit
Cost per Space (2002)	$10,000-$15,000/space	$10,000-$15,000/space	$10,000-$15,000/space	$15,000-$21,000/space	$27,000-$37,000/space	$27,000-$37,000/space
Minimum Block Size	380'x500' or 320'x750'	500'x485' or 440'x550'	495'x515' or 435'x600'	350'x410'	120'x280'	120'x280'

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Commercial District Superblocks Containing Structured Parking

While parking is a land hog horizontally, in relation to retail and office occupancies, it is quite efficient vertically. For every two stories of office over retail built to standard market heights, one can build four levels of parking deck.

Nonetheless, one criticism of projects with central above-ground structured parking is the size of blocks that result. While the 460x480-foot blocks for the two-story buildings at Southlake are large, suburban commercial district plans with greater densities potentially require giant block sizes.

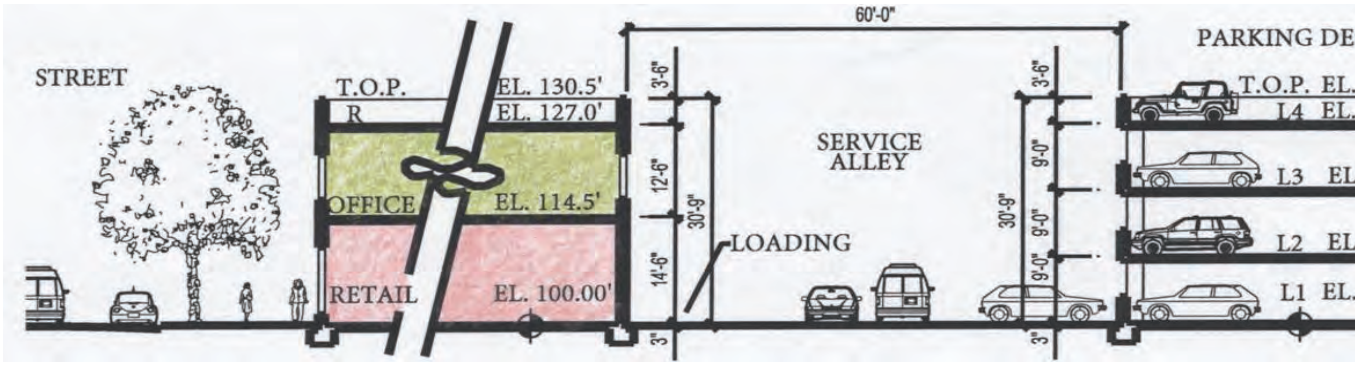
Another, newer David Schwarz project, Frisco Square, illustrates this point. The area is ultimately envisioned to become the commercial center of a city of 250,000, containing its city hall, library, police station, and other principal buildings. It is further expected that the Dallas Area Rapid Transit rail system will be extended to the site. But for now the area's four-story buildings will start their lives as residential over retail; only later will they be converted entirely to civic and commercial uses.

The goals of the Frisco design are to create blocks of four-story buildings that fully envelope their parking load, avoid expensive building types, phase easily, and create a pleasant pedestrian-oriented environment. However, to meet these goals—and use parking decks that are not more than four stories high (a city requirement) —the blocks in Frisco are enormous: 900 by 500 feet.

At Frisco, as at Southlake, efforts to limit the perceived length of streets have included mid-block vehicular breaks that read as streets and notched corners of the larger blocks to accommodate squares and plazas. Clearly, other criteria could also have allowed smaller block sizes: taller parking decks; underground parking; permanent residential space; and more expensive construction, such as party walls, could have been used. (Indeed, the City of Frisco did recently allow some areas to be broken into smaller blocks by increasing allowable deck heights and exchanging commercial uses for permanent residential.) Nonetheless, the Southlake and Frisco master plans show that one of the biggest challenges facing planners of new commercial districts today is reducing the actual and perceived size of blocks containing structured, above-ground parking.

One solution is the "half-donut," which marries com-





mercial uses on one or two sides of the block with half of a Texas-donut residential design. This model was used at City Place in West Palm Beach by Elkus Manfredi Architects, Ltd., creating blocks of 330 by 360 feet. In this design, full-depth commercial buildings are built on two faces of a block, while an alley serves the back of commercial buildings and ventilates a parking deck, to which liner residential buildings adjoin and face the block's other two sides.

Another option is to use clever tartan grids that intersperse larger (deck-bearing) blocks with smaller ones, as in Jindalee Town Center, by Ecologically Sustainable Design; and in the unrealized Oakhurst Plan for Orlando, Florida, by DPZ. Alternatively, if the financial resources are available, a large deck surrounded with liner buildings can be built at the outset of a project. Located at the center of a project, as in the Mirimar Town Center plan, by Torti Gallas and Partners, it can be used to handle overflow parking from neighboring blocks.

Paradoxically, the inclusion of mass transit often increases the size of blocks in a new urban center. Certainly, the presence of mass transit reduces the vehicular load from adjacent uses; in a transit-oriented design, the parking requirement for nearby residential buildings may, for example, be reduced from two spaces to one. However,

Parking Blight

The consequences of commercial parking demand are evident throughout the American landscape, but the causes are less clearly understood.

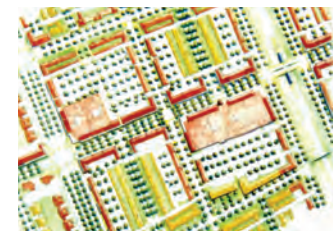
Historically, one reason for today's parking blight has been overly conservative parking requirements. Convenient when land was cheap, they pocked suburban America with an acne of little- or unused asphalt.

Old formulas for shopping malls, driven by anchor stores, specified one space for every 200 sq.ft. of gross leasible area (5 spaces/1000 sq.ft.). Today ratios are still conservative: retailers often demand one space per 225 sq.ft. (4.5 spaces/1000 sq.ft.). And many municipalities require one space per 75 sq.ft. for restaurants (12 spaces/1000 sq.ft.). By contrast, town-center shared-parking solutions resulting from hard negotiations by transportation consultants may arrive at a ratio of one space for every 325 sq.ft. of general commercial space.

The space needed to park a car also goes far beyond the area needed to store it. In an optimized surface lot, each space requires around 325 sq.ft. of land, after one adds in a prorated portion of the drive aisle needed to access it. This vast paved area then requires that additional land be







mass transit stations, particularly those along rail lines in suburban locations, require huge volumes of parking for commuters who may live only a few miles away. This often results in at least one large parking structure near the entrance to the transit station. One solution to integrating this into an urban plan is to "wrap" or "sleeve" it with buildings, as Torti Gallas has proposed for Harrison Commons' PATH station, across the Passaic River from Newark, New Jersey.

As some optimists have suggested, as urban center master plans mature, dependence on automobiles may decrease. Eventually, portions of the giant parking structures required for today's new urban centers may then be replaced with housing or other uses. Research into parking habits by Donald Shoup and others should also enable more exacting, less conservative assessments of parking requirements.

Mechanized parking systems, like those now incorporated by Panoramic Interests in projects in Berkeley, California, are a third positive development. They can reduce both the size and cost of space required. As terms such as "puzzle lift," "triple lift," and "dependent lift" enter the design vocabulary, parking solutions may be transformed as much by technological innovation as by regulatory, architectural or economic change.

Opposite Above: Embedded parking deck at PATH station, Harrison Commons, Harrison, NJ, Torti Gallas and Partners.
Opposite Below: A section though a commercial block shows how parking can be very efficient a building-height standpoint. Drawings by Torti Gallas and Partners.
Left: Town Center, Mirimar, FL, Torti Gallas and Partners. Colors on center block indicate percentage parking load from adjacent blocks.
Middle: "Half-Donut" block, CityPlace, West Palm Beach, FL, Elkus Manfredi Architects, Ltd.
Right: Jindalee Town Center, Ecologically Sustainable Design.

reserved for stormwater management.

All told, in the best of circumstances, a typical single-story commercial building requires that a minimum one-half to a more typical three-quarters of a site be dedicated to parking and ancillary requirements. For a two-story building, close to 80 percent of a site must be set aside for surface parking.

This vast supply of parking is also expensive to build. Surface spaces can cost from $3,000 for low-end asphalt to $10,000 for cobbles or brick-like concrete pavers.

In a single-family residential setting, parking normally takes the form of attached or detached wood garages on top of a concrete slab, at a cost of around $13-$18,000/space. In conventional multifamily settings, open, undecorated, multistory precast parking decks cost anywhere from $10-$13,000/space.

If a parking deck is exposed to the public realm, the cost of decorating its facades can push the cost of a space to around $14-$20,000. If an above-ground garage is fully enclosed, additional operational costs must be incurred for ever-ready exhaust fans. Finally, underground installations begin at $27,000/space, and can go significantly higher depending on subsurface conditions.

The European Transect: An Organic Way for Architecture to Develop Towns, Cities, and Metropolises

Gabriele Tagliaventi



The first exposure I had to the idea of a rural-urban transect came in Toronto in 1997, at the Congress for New Urbanism. Andrés Duany gave me a huge in-folio volume to "do a cultural translation for the European context."[1] It was the most exciting material about urban planning and architecture I had seen since Leon Krier's criticism of modernist suburban developments.

The transect's great value is that it provides practitioners, students, developers, and public officials with a comprehensive system to help guide the rational, organic development of towns, cities and metropolises.
New Urbanism is most frequently criticized on the European continent for its romantic and outdated profile.[2] When attacks are not ideologically motivated, comments usually go something like: "Yes, the drawings are elegant, the theory is interesting, but it doesn't belong to our time, and, worst of all, it cannot be applied on a large scale."

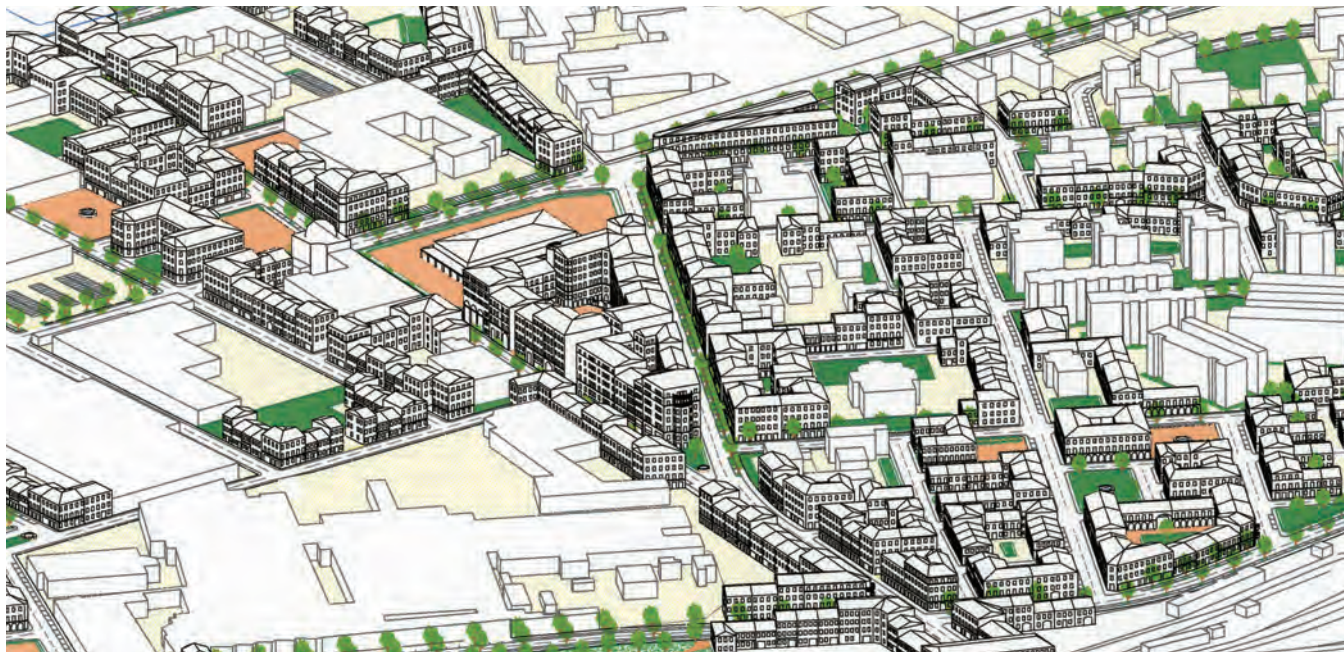
Duany's folio, however, offered an answer in the form of a comprehensive collection of references and an efficient "operating system" to design settlements in balance with the natural environment, from the rural house to the metropolis.

Understanding the European City through the Transect

The task of making a cultural translation of such essentially American ideas immediately raised important questions. Could the transect keep its strength in the European context? Could it explain the nature of the existing European city and guide future organic developments? How could a simple and straightforward tool work in an extremely complex environment? Was it sufficiently adaptable to the new panorama? Could it be implemented?

Since 1998, together with colleagues and teaching assis-

Above: Bologna was the first European city where transect-based analysis helped with planning for physical expansion and population growth. This photo shows a section of the city core (T6). Views of the city corresponding to other T zones are on p.52.
Opposite: Research on transect zones and building types was used to generate a plan for infill development in a peripheral area of Ferrara along the Via Modena.



UNIVERSITA' DEGLI STUDI DI FERRARA
FACOLTA' DI INGEGNERIA

LO SPAZIO COMMERCIALE COME MATRICE
DEL NUOVO RECUPERO URBANO:
IL QUARTIERE INTEGRATO DI VIA MODENA A FERRARA

TAV. N. 23
Codice Urbano

Tipologie	Palazzo			Lotto Pieno	Palazzina	Lotto Gotico
Prospetto						
Dimensioni in Pianta						
Vani Scala						
Elementi di Facciata						
Posizione nell'Isolato						
Parcheggi						
Altezze e Destinazioni d'Uso						

tants, I have developed a series of courses at the University of Ferrara to test the case. This has involved selecting a number of European cities and assigning them as studio exercises to students at different levels in the program. In each case we have asked students to analyze the city's morphological structure and the nature of its public and private realms, making extensive use of figure-ground techniques. After this, students are instructed to look more deeply into each city's idiosyncratic nature by subdividing it into neighborhoods, districts, corridors, etc.

All the European cities studied have positively responded to the ideas of the transect. But in the course of this work a very peculiar situation has come to our attention: the need to introduce an intermediate category to the transect classification to identify a common level of European urban settlement with neither the strength, size, nor mixed-use complexity of the neighborhood.

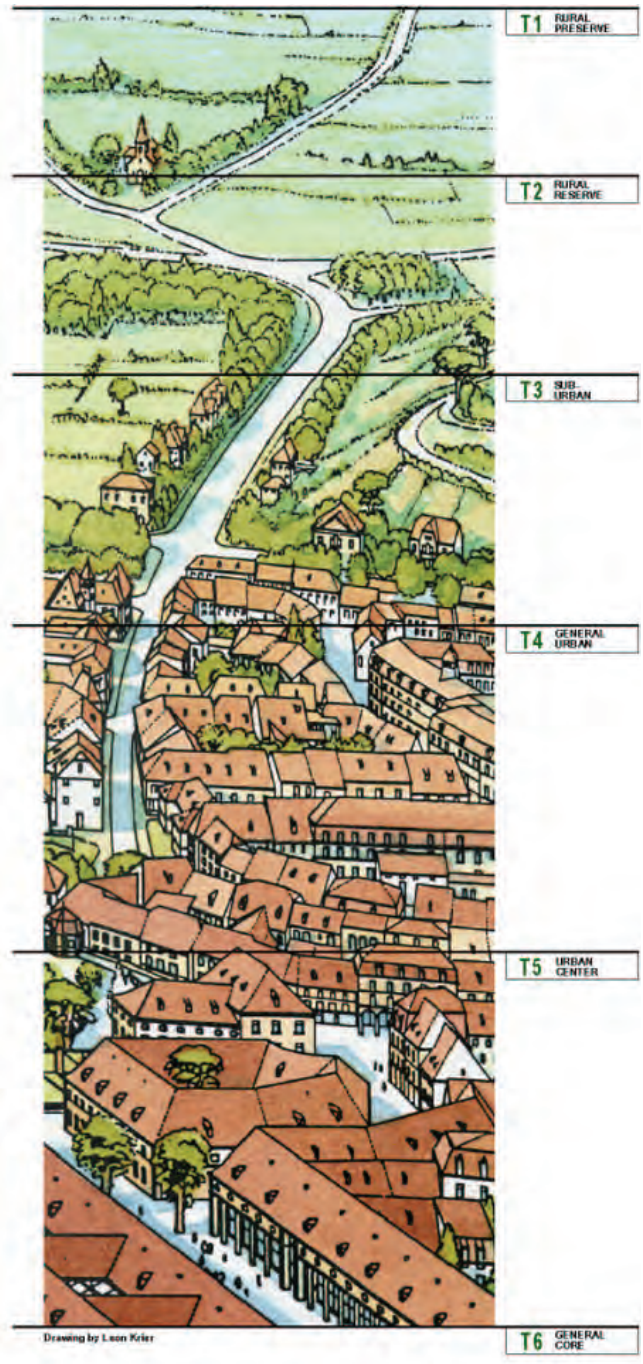
The reason is related to history. Most European cities were once surrounded by walls, and outside the walls—or even inside in their vicinity—a specific area began to develop as a form of transition between urban neighborhoods and the countryside. There is no doubt this is an urban and not a suburban element. Buildings are typically aligned on streets and often have shops, offices and restaurants. The area is dense, compact, and usually defined by a clear architectural identity. However, it cannot live without the adjacent urban elements of a higher rank: the city, the neighborhood, and the district.

Eventually, we identified this transition element as the "faubourg" (the second syllable of which is rendered as "borgo" in Italian and "burg" in German). Often it takes linear form and grows along a street connecting the city's gate with the countryside and with other cities. But it can also be identified with a nonlinear shape.

With the introduction of such a transition element, the transect classification system now performs in a very convincing way. At the regional scale, we have identified neighborhoods, districts, faubourgs, and villages as components of the city or the metropolis—or, in Italian, *quartieri*, *distretti*, *borghi*, and *villaggi*.

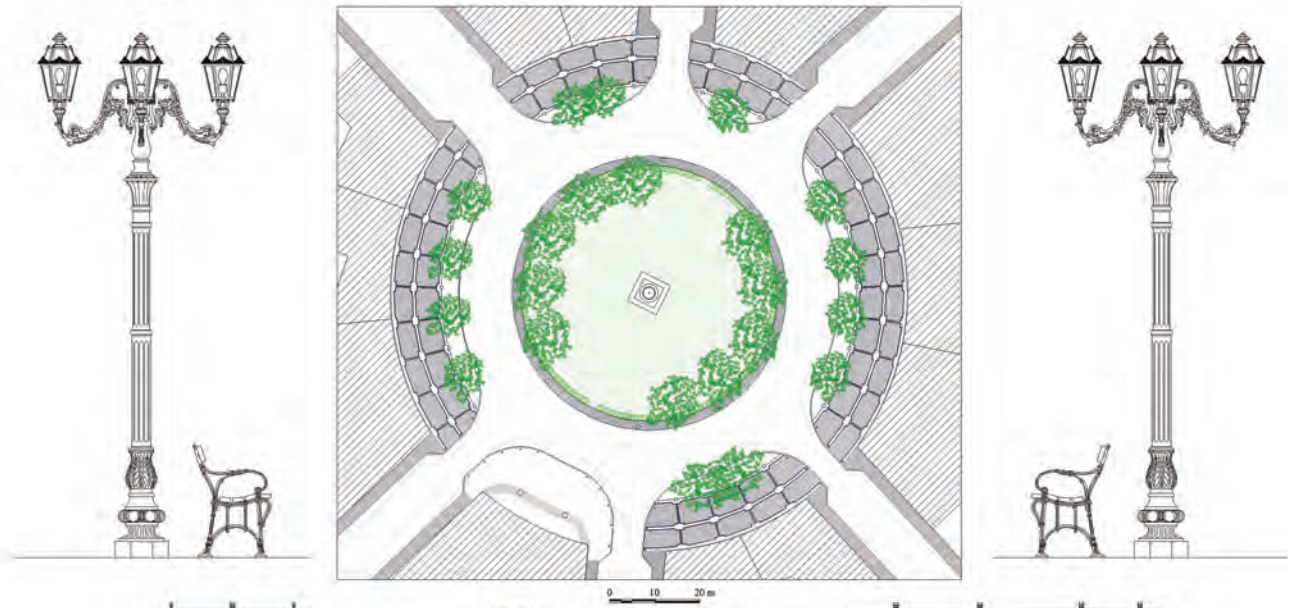
The first official work produced in Italy according to the transect was a master plan we helped design for the City of Bologna in 1999-2002. It called specifically for a federation of cities, neighborhoods, districts, faubourgs and villages to allow the municipality to grow from its current population of 365,000 to 500,000 by 2025.

Opposite: To understand the heritage of European urbanism, students made detailed examinations of individual city spaces at a variety of scales. This drawing is taken from work on Monaco.

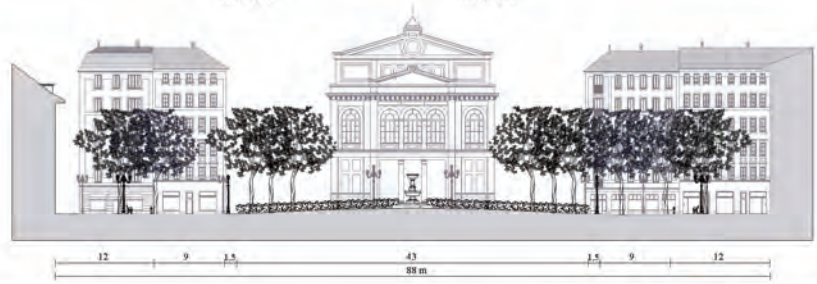


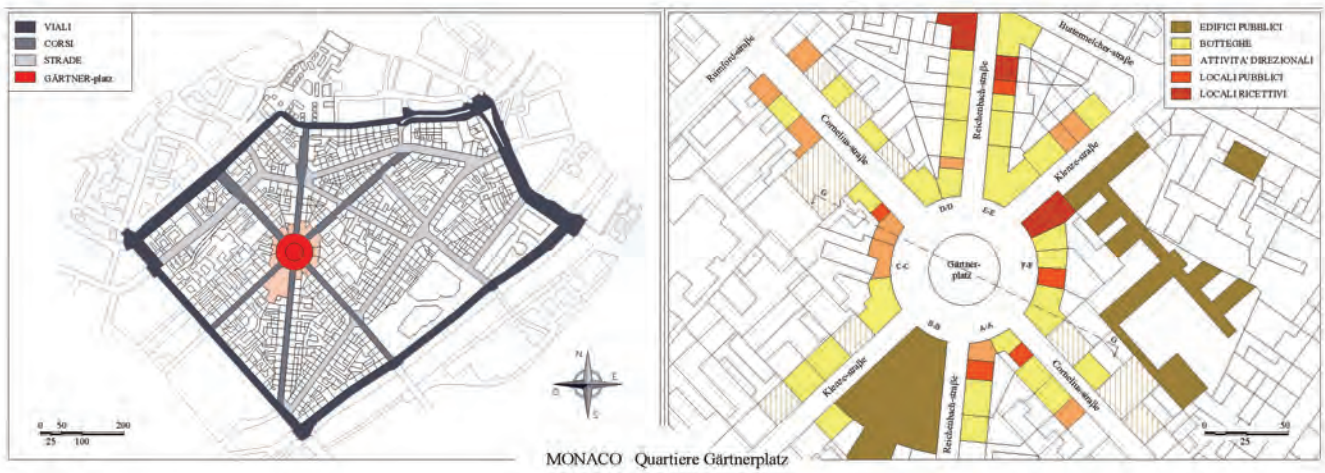
Above: This illustration is from the early plan for Echternach in Luxembourg by Leon Krier. It is a vignette extracted from a full drawing that is eight times the width. In retrospect, the implied transect is obvious. The calibrations were subsequently applied by DPZ. Drawing courtesy of Duany Plater-Zyberk and Co.



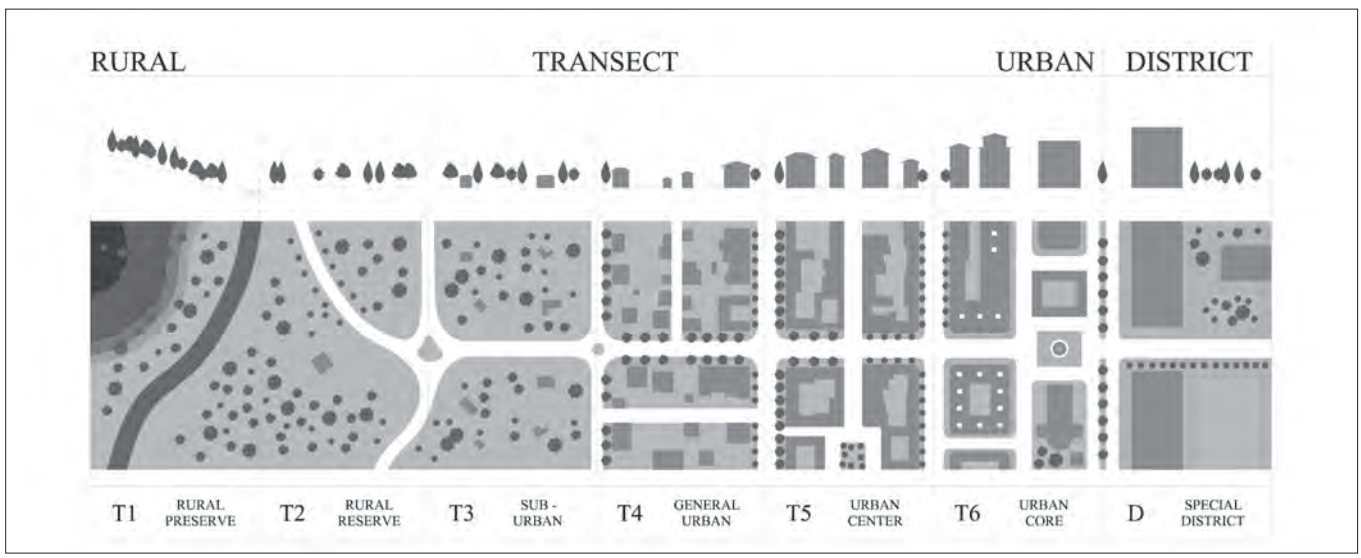


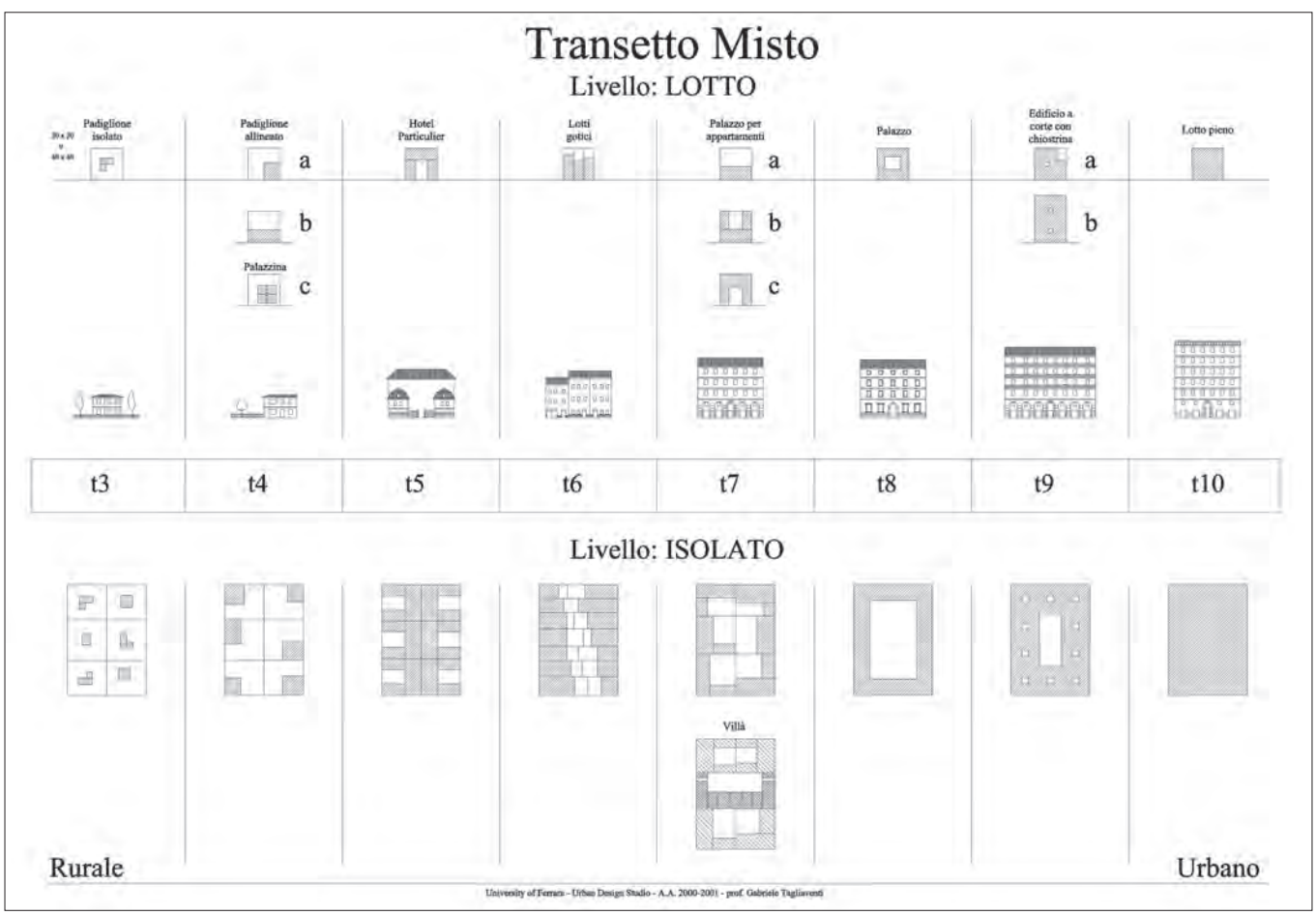






MONACO Quartiere Gärtnerplatz


RURAL
TRANSECT
URBAN DISTRICT
T1
RURAL PRESERVE
T2
RURAL RESERVE
T3
SUB - URBAN
T4
GENERAL URBAN
T5
URBAN CENTER
T6
URBAN CORE
D
SPECIAL DISTRICT


Transetto Misto
Livello: LOTTO
Padiglione isolato
Padiglione allineato
a
b
Palazzina
c
Hotel Particulier
Lotti gotici
Palazzo per appartamenti
a
b
c
Palazzo
Edificio a corte con chiostrina
a
b
Lotto pieno
t3
t4
t5
t6
t7
t8
t9
t10
Livello: ISOLATO
Villà
Rurale
Urbano
University of Ferrara - Urban Design Studio - A.A. 2000-2001 - prof. Gabriele Tagliaventi



As we were developing this plan we made other interesting discoveries about the translation of the ideas of the transect to a European context. One concerned the way districts were traditionally formed. Medieval cities had many industrial and religious districts, with hospitals often lending them a precise character. For example, the largest Italian hospital—the S. Orsola Polyclinic in Bologna—is within the 1889 master plan's boundaries, and its individual buildings are located within blocks that continue the surrounding urban grid.

Another discovery involved the size of a typical neighborhood, established by the transect at approximately 160 acres—64 hectares in Europe.[3] Though in many cities the central neighborhoods are smaller than peripheral ones, it is surprising to see how most cities work according to this principle. Even in Paris the average of the 96 neighborhoods that comprised the city in 1860—after Haussmann's reform of twenty *arrondissements*—was around 100 hectares, a kind of extreme limit for a big neighborhood.

The key factor in the creation of such neighborhoods remains walkability. Unlike the modernist city, residents of the traditional city could normally be expected to walk a reasonable distance. Many urban neighborhoods built in big cities such as Rome, Lisbon and Madrid in the 1950s and 60s still worked along these lines, even when their architecture was modernist. In all such cases, however, the urban structure uses a vertical mixing of uses in individual buildings: retail at ground floor, offices on the second and third floors, and residential above.

Opposite Above: A general European transect drawing.

Opposite Below: Analysis of typical patterns of European urbanism led to the development of small "t" building forms and their correlation to capital "T" transect zones.

Above: The positive/negative (figure/ground) technique as applied to central Paris.

Capital T, Small t

The transect as a key to understanding the European city finds an exciting challenge when confronted with the plurality of European building typologies. This is not a problem in transect zones T1, T2, T3. The rural world is based upon elementary rules that do not change by crossing the Atlantic. But the complexity of European history makes things more complicated when one deals with the urban world.

In relation to the urban zones (T4, T5, T6) an interesting debate emerged, with students actively participating. They were extremely interested in the potential of the transect as a tool for replanning the old continent. But they realized we also needed to analyze the wide spectrum of European building types to see if they could be reduced to the three categories. This work ultimately led to the introduction of the "small t," developed as a corollary architectural typology to allow assemblage of the various urban blocks described by the transect's "capital-T" zones.

In Europe the building types t1, t2, and t3 were found to be basically the same as in America. They involve free-standing structures that eventually become the single-family house in the center of the lot. But in urban areas things become more complex. There, we established the t4 as the urban pavilion aligned on a lot edge, as in many European additions of the late nineteenth and early twentieth centuries, especially along peripheral boulevards and drives. Next, the t5 is the French *hotel particulier*, which represents a transition between the rural and the urban. And the t6 is the famous "Gothic lot" whose incremental development led to the townhouse. The upper series covers courtyard urban types such as the palace for apartments, t7; the palace for singular residence, t8; the intensive courtyard building, t9; and the dense t10, where the building type occupies the entire lot.

In our analysis we found that small t and capital T could work perfectly together. The analysis showed many combinations that make T4 out of t4, t5 and t6; T5 out of t5, t6, t7, and t8; and the core's T6 out of t7, t8, t9, and t10.

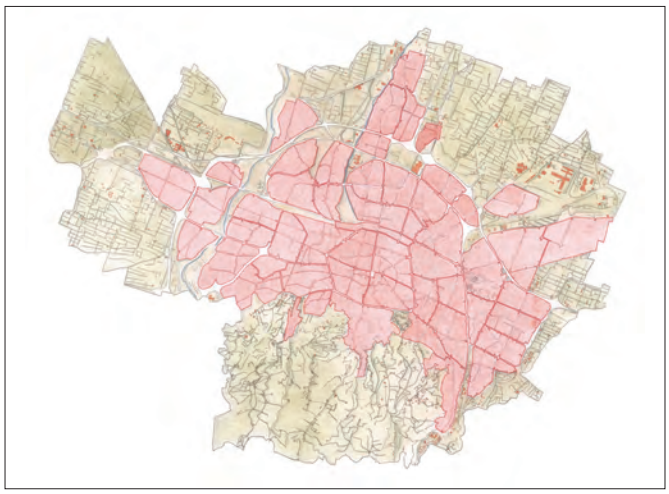
Using the Transect to Reform the European City

The second part of our studio exercise typically involves designing urban interventions in specific locations. Here the transect has proved a fantastic tool to relate the metropolitan scale to the refined scale of architectural detail. Students are always fascinated by the possibilities of the transect to produce an inventive and efficient architectural design rooted in local culture and traditions. It seems to be the best tool to effectively start a process of urban reform.

Because European cities have been so polluted in the







last fifty years, it is sometimes difficult to identify their historical inner cores. The famous case of Nancy, Lorraine, in France illustrates the situation well. The jewel of its medieval and Baroque urbanism, the elegant plazas designed by Emmanuel Heré to link with the Gothic core, are today lost amidst a modern sprawl of such magnitude that the ancient core is hardly recognizable.[4]

One project we have worked (illustrated on p.47) is the design for a peripheral area in Ferrara, Italy, along the historical road connecting with Modena. It is an area of wide-open lands where scattered residential "towers" and "bars" float in an ocean of gas stations, abandoned warehouses, malls, and industrial units. The proposal calls for a radical urban reform based on the principles of the polycentric city. On an area of 150 hectares, it accommodates 14,500 inhabitants in three small neighborhoods—one central with high density; two peripheral with medium density. Building types are designed according to the Ferrara transect and coded.

In Europe we found that the transect provides architects with the chance to devise practical solutions to the problems of sprawl. It should be adopted by municipal building departments as a law, and by practitioners as a guide.

It is time that European students get back in touch with their urban patrimony. The transect allows them to make a clear connection between analysis and design, leading to a successful organic development. It is time that European urbanism again learn to build those beautiful neighborhoods we still admire. It is time that the countryside and the city find true reconciliation.

Notes

1 The tradition in architecture of publishing in-folio volumes dates back to J.N.L. Durand and his "Recueil et parallèle des edifices," first published in Paris in 1800.

2. See Jonathan Glancey, "Castles in the Sand," *Abitare* 276 (1989).

3. See Duany Plater-Zyberk & Company, *The Technique of Town Planning: Operating System of the New Urbanism* (May 1997), *C1: The Neighborhood Structure.*

4. The sharp contrast in Nancy between the harmony of the eighteenth century and the brutal interventions of the twentieth was the subject of a special issue of the French magazine *Le Figaro*, which called Nancy the "capital city of vandalism." See "Patrimoine du XX siècle: Raser ou garder?" ("20th century patrimony: Demolish it or save it?), *Le Figaro*, cahier n.3, February 10, 2001.

All images courtesy of the author except where noted.

Above top left: A typical area in the general urban zone of Bologna.
Right: A typical neighborhood-center in Bologna.
Bottom left: A mapping of Bologna's neighborhoods.

The Transect and Thoroughfare Design

Richard A. Hall

From rivers and trails, to canals and railways, and now roadways designed exclusively for high-speed motor vehicles, mobility has evolved dramatically over the last two hundred years. George Washington could travel no faster than Julius Caesar.[1] And as late as 1850, the journey from New York to San Francisco required six hazardous months. Today's travel options enable experiences that were largely unimaginable to nineteenth-century populations.

One of the biggest developments in the last hundred years has, of course, been the development of the automobile. It became a common sight on America's streets and highways with mass-production of the Model T Ford. Initially, few could visualize the dramatic change it would bring. But now the diorama of "Democracity" from the 1939 New York World's Fair, with its freeways and far-spreading suburbs, has become the reality for every large population center in America. Meanwhile, walkability, a cherished quality of pre-World War II neighborhoods, has largely disappeared from planning practice.

While the pervasive influence of automobiles is now unquestioned, in recent decades the problems of the suburban auto age have become as apparent as its promises. James Kunstler succinctly described suburbia's two greatest problems as "the extreme separation of uses and the vast distances between things."[2] Others have similarly documented the many other negative impacts of extreme automobile dependence, including isolation, increased time spent traveling, diminished air quality, and a degraded sense of place.[3]

The work of Michael Southworth and Eran Ben-Joseph on the relationship between transportation and land use planning has been particularly valuable to understanding the damaging effects of auto-mobility on the design of neighborhoods. They have pointed specifically to "regulations and standards that are often in excess of actual traffic requirements."

> *Design of the residential street network is based on statistical information and research that is primarily oriented to facilitating vehicle movement on large-scale streets and highways. Such standards have then been mechanically adopted and legitimized by local governments to shield themselves from any responsibility for road performance. Federal funds for street improvements have further entrenched uniform standards.… Modifications have been discouraged, and because higher governmental agencies have not openhandedly allowed flexibility, lesser agencies have been reluctant to do so.…Lenders in turn have been hesitant to support a development outside the mainstream, particularly when it did not conform to established standards and regulations.*[4]

In response to the problems of America's near-universal embrace of auto-dominant suburban development, professionals from a range of disciplines have begun to establish a course of corrective action. The most comprehensive framework of proposed solutions has emanated from the New Urbanism. In relation to transportation issues, this has stressed development patterns and scales that are more sympathetic to pedestrian needs, balanced transportation design, and enhanced mobility via all modes.

Discussions of thoroughfare design were for years limited to a reductive series of rural and suburban road types. Today New Urban designers have developed tools such as the rural-urban transect that can reintroduce more urban types to the mix. In practice, New Urbanist plans have also begun to yield developments with a diversity of transportation options and community forms. However, gaining official recognition for the thoroughfare types to go with these plans has been a struggle, with most barriers stemming from the adopted policies and established practices in existing manuals.

The primary guide for thoroughfare design in the United States is the American Association of Highway and Transportation Officials' *A Policy on Geometric Design of Highways and Streets*.[5] Historically, state and local officials have interpreted the prescriptions in this manual, known as the AASHTO Green Book, with great strictness, and its basic assumptions have also been extremely resistant to change.

Recently, a new climate of design flexibility has begun to emerge as a result of encouragement from Federal Highway Administration (FHWA) policy-makers. Yet many AASHTO policies still conflict with the design goals of the New Urbanism.

Basic AASHTO Green Book Assumptions

The Green Book begins by defining the functional characteristics of three thoroughfare types: arterial, collector and local roadways. In the process, its introductory chapter, "Highway Functions," essentially establishes a comprehensive value structure for vehicle-oriented mobility. The Green Book is clear that even though "geometric standards could be determined without reference to the functional classification," this would not be consistent with a "systematic" approach.[6]

The Green Book establishes its functional hierarchy based on the type of trip served and the anticipated volume

Table 1. Priority of Thoroughfare Function by Transect Zone						
Functional Classification	**T_1 Rural Preserve**	**T_2 Rural Reserve**	**T_3 Sub-Urban**	**T_4 General Urban**	**T_5 Urban Center**	**T_6 Urban Core**
Boulevard	N/A	N/A	Vehicle/Pedestrian	Vehicle/Pedestrian	Vehicle/Pedestrian	Vehicle/Pedestrian
Avenue	N/A	N/A	N/A	Vehicle/Pedestrian	Vehicle/Pedestrian	Vehicle/Pedestrian
Street	N/A	N/A	N/A	Pedestrian	Pedestrian	Pedestrian
Road	Vehicle	Vehicle	Pedestrian	N/A	N/A	N/A
Highway	Vehicle	Vehicle	N/A	N/A	N/A	N/A

of traffic. But underlying this system is the view that the purpose of all thoroughfares should either be to provide access to property or facilitate vehicular mobility. Interestingly, these two purposes frequently conflict: vehicular access to land requires more intersections and individual driveways, while mobility requires few, if any, such complexities. The principal mechanism to manage this conflict is functional hierarchy. Thus, local streets primarily provide vehicular access to land; arterial roadways primarily provide for vehicle movement; and collector roads connect the two.

One clear implication of this division is that access to land via driveways or small streets should be heavily regulated along arterials. Only freeways provide a greater focus on vehicular mobility, by denying access except by interchange ramps and prohibiting slow-moving vehicles, pedestrians and bicycles.

Today, this need to maintain access restrictions along arterials has become a highly controversial activity. It has even spawned an Access Management specialization involving professionals dedicated to preserving vehicle mobility in the face of constant requests from private landowners and frequent opposition from the general citizenry. As early as 1964, James J. Morton, assistant to the U.S. Secretary of Commerce (pre-USDOT) stated, "The most serious obstacles in our road building program are not money, nor engineering problems, not cruel terrain—but PEOPLE."[7]

The mobility vs. access conflict is most evident in urban areas. Arterial performance is often measured according to level of service (LOS), a rating that combines volume of vehicle flow with average speed. Such calculations are perfectly in line with AASHTO's view that vehicle mobility is the primary purpose of arterial roadways. Such calculations may be appropriate for rural areas, where autos and trucks are assumed to move the majority of people and goods. But in more complex urban settings, these definitions frequently create conflict between transportation officials and urban designers.

The Effect on New Urbanism

The Green Book's definitions and criteria have played a major role in establishing suburban development patterns since World War II. Indeed, its classifications may be seen to contain much of the DNA for suburban America. Just as DNA guides cell function and growth, these simple definitions encode instructions for how all thoroughfares (theoretically) function.

New Urbanism has come into serious conflict with the Green Book in several areas. First, since AASHTO's classification system does not consider walking to be a viable means of travel, the needs of pedestrians hardly figure in the Green Book's largely rural and suburban design standards. Second, since vehicle mobility (measured in terms of LOS ratings) depends largely on operating speed, the design of arterial thoroughfares generally ignores pedestrian mobility, comfort and safety. By default, areas designed for walkability have become islands, delineated or bounded by arterials. Furthermore, as land-use densities increase along arterials, increased traffic on widely spaced (too few) collectors requires that this second tier of streets be widened to four lanes. Wide collectors, in turn, disrupt walkability deep into neighborhoods.

Such a singular focus on motor-vehicle speeds has created a substantial disparity between AASHTO policies and New Urbanist design goals. New Urbanists prefer to encourage walkability by lowering vehicle speeds, narrowing street widths, and allowing on-street parking. This routinely leads to conflict with AASHTO policies at the edges of neighborhoods, which often spreads to their centers.

Despite its potential to alleviate some of these conflicts, the national movement to create flexibility in roadway design has put designers in a difficult position. Since many New Urbanist street widths and other parameters violate the minimum specifications stated by AASHTO, those who design them are potentially exposed to greater legal liability.

Recommended Solutions

Efforts to resolve the confusion between walkability and auto dominance should begin with AASHTO. Its name does, after all, contain reference to both highways and transportation. Specifically, the organization's present highway focus could become more responsive to a range of travel options, and thus evolve to accommodate a more complex, multimodal understanding of urban transportation needs.

State and local agencies should also be instrumental in initiating corrective steps . Revised functional classifications and design criteria adopted by agencies with jurisdiction over planning and public works could significantly reduce designers' liability. Ordinances that specifically codify walkability as a part of a general transportation system are particularly useful.

In broad, conceptual terms the most important change may be to expand the single area type the FHWA and AASHTO use to define an "urban" area. A variety of area types would better reflect the true diversity of city and town contexts. With better definitions of the surrounding development character, the needs of drivers, pedestrians, bicyclists, and transit riders could be more strategically analyzed based on urban design principles. One tool to achieve a more refined vision of transportation needs in urban areas is the SmartCode.[8] Its transect zones describe a range of urban development patterns, and propose an array of thoroughfare types and modal functions to go with them.

A second broad change would be to define a wider array of thoroughfare functional classifications. As part of this effort, a thoroughfare's primary function could be established as either vehicle or pedestrian mobility (or bike or transit). Portland, Oregon, has already taken this approach. It manages mobility by designating each street function by mode, enabling varying priority levels for walking, bicycling, transit, and auto use. The federal Highway Capacity Manual may also be helpful here since it defines urban arterials by four classes (I to IV) based on the nature of the thoroughfare and the area though which it passes.

For its part, the SmartCode generally defines boulevards, avenues and streets as pedestrian-priority thoroughfare types. Thus, designs for thoroughfares within urban transect zones (T4 to T6) facilitate pedestrian movements first. The needs of vehicles are considered second, in a way that does not inhibit walkability.

A comprehensive functional classification framework based on the SmartCode transect zones is shown in the accompanying table. Perhaps most significantly, it defines boulevards as walkable thoroughfares that also carry longer vehicle trips. This differs from the current AASHTO definition of urban arterial function by according equal weight to pedestrian and vehicle mobility. In other words, for walkable transect zones, pedestrian mobility is key, but vehicle mobility would receive somewhat higher priority on boulevards and avenues than on streets. The primary function of highways, including freeways, would still be vehicle mobility, but they would be limited to nonurban zones (T1 through T3) or other nonwalkable districts.

A final step will be to establish actual street-design criteria for each new functional classification. This would reflect a need for lower design speeds in walkable areas; with its current emphasis on auto-mobility, present AASHTO standards require a *minimum* design speed of 31 mph in central business districts and intermediate areas. To regulate speed more effectively, posted speeds should equal design speeds—not attempt to limit them with signage only. Observations in urban settings indicate that lane width effectively controls vehicle speed in the low ranges of 15 to 25 mph needed for walkability.

In urban areas, thoroughfares can be effectively planned, designed and constructed to serve auto use *and* the "forgotten" functions of walking, bicycling and transit. However, this effort will depend on a clear definition of context, and it will require a new definition of thoroughfare function that augments AASHTO's current classifications of arterial, collector and local streets and roads. The transect provides a valuable tool in making these changes.

Notes

1. Stephen E. Ambrose, *Nothing Like It in the World* (New York: Simon & Schuster, 2000), p. 42.

2. James Howard Kunstler, *The Geography of Nowhere* (New York: Simon & Schuster, 1993), p. 117.

3. See, for example, Jane Jacobs, *The Death and Life of Great American Cities* (New York: Random House, 1961); and Andres Duany, Elizabeth Plater-Zyberk, and Jeff Speck, *Suburban Nation* (New York: North Point Press, 2000).

4. Michael Southworth and Eran Ben-Joseph, *Streets and the Shaping of Our Towns and Cities* (Washington: Island Press, 2003), p. 139.

5. AASHTO, *A Policy on Geometric Design of Streets and Highways* (Washington, D.C.: American Association of State Highway and Transportation Officials, 2004).

6. Ibid. p. 13.

7. Dom Nozzi, *Road to Ruin* (Westport, CT: Praeger, 2003), p. 1.

8. Duany Plater-Zyberk, Inc., *SmartCode v 8.0*, 2006. Available at www.placemakers.com.

Pienza, Lessons at the Edge

Robert Orr



Approaching the wall that crowns the ramparts of the Tuscan city of Pienza, one is greeted by a breathtaking view of sumptuous landscape stretching in all directions. This view is all the more spectacular for the striking contrast it affords with the winding, narrow streets and busy, compact blocks just behind. The moment of emergence from the knot of shady streets to behold the full sun-drenched panorama is arresting, uplifting, and sublimely beautiful. Inspiration for better things fills the soul in a kind of Ambrogio Lorenzetti moment.[1]

The concept of an abrupt edge between compact urban development and open countryside, as in Pienza, is as mesmerizing in its normative beauty as it is perplexing to unlocking lessons for development today. In terms of the transect and its codification in the SmartCode, this edge completely omits the sub-urban T3 and T4 zones that are the focus of so much development today, and the area where New Urbanists wage their fiercest battles against sprawl.

The complete absence of this battle zone in Pienza would seem to suggest the city is irrelevant in its "arcane banality"—as one contemporary admonished me recently. However, something haunts in the unquestionable perfection Pienza seems to offer. Perhaps there is more to be learned from the agricultural edge than might first be imagined.

"Civitas"

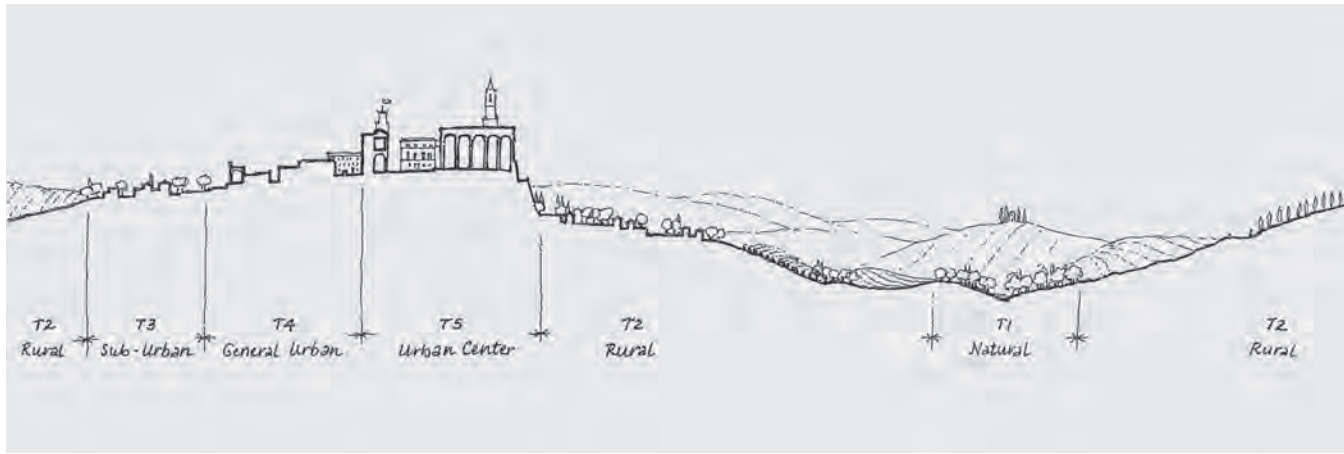
To understand the origins of Pienza's edge one must look to the city's medieval roots. Social instability during the Middle Ages encouraged farm villas to congregate tightly into defensible villages. Later, the demographics of these dense agricultural communities made them highly suitable for mercantile trade. But in the beginning, the villages were purely agricultural, and their shapes evolved organically according to considerations of security, topography, fertility of land, and the needs of circulation.

One of the principal concerns was that agricultural land be close at hand to expedite travel on foot or beast between village and fields. This meant that the acreage needed to sustain the village population often created an agricultural zone which completely encircled it. As the villages grew, this agricultural border pressed in on the village because of the need to keep daily commutes as direct as possible. It also encouraged higher-density development within the village. Thus, through a self-reinforcing loop, the point of contact between urban and rural became highly pronounced.

By the mid-fifteenth century the organic development of agricultural Pienza had evolved to fully incorporate the shops and markets we enjoy today. It was on this evolved palimpsest that Pope Pius II inscribed the aesthetic and philosophical changes that transformed it into an influential "utopian city." Pope Pius II's adjustments considered intellectual and visual relationships of the public and private, religious and secular, urban and rural. As the first and most clearly planned Renaissance city, Pienza eventually came to embody a model of ideal living and government based on the concept of a self-sufficient, peaceful and hardworking populace.

Such qualities of "civitas" inspired utopian thinkers for centuries, and it is through these qualities that the breathtaking epiphany experienced at the agricultural edge is best understood. The epiphany is all the more remarkable when

Above: The urban edge of Pienza. Photo by author.



we realize that the open space beyond the wall is not natural countryside but productive farmland carefully orchestrated to reward our view, not just to grow crops and livestock.

Giving Place to Farming

A study of these patterns in Pienza reveals a curious omission from within the New Urbanism. While the transect diagram claims to illustrate a full spectrum of development, from high-density urban cores to no-density virgin "nature," it depicts no agriculture. To be sure, farms do appear, but only as dressing at the outer edges. The quality and potential for agriculture to be a fully contributing participant in urbanism does not receive its due.

On closer examination, it is remarkable that industrial farming has so entirely escaped the New Urbanist critique. Although industrial farms don't bring wasteful mega-parking lots, they are no less dependent on petroleum, and their chemical dependency is no less destructive to the environment (not to mention to human health) than the American suburb. In fact, industrial farming outstrips them all.

Where then does industrial farming reside on the American transect, and where might New Urbanists place an alternative?

Much is made today of how (mostly young) suburban expatriates are moving back to once-charming urban neighborhoods. The quality of life in these places is being newly unveiled partly because their assets were once so unfairly obscured by denouncements of "urban blight"—perhaps more a euphemism concealing bigotry against the poor and ethnically "undesirable" than a fit description of the physical structure of the cities. Today it is easy to understand how the steady degradation of all aspects of life by low-density consumerism has fueled dissatisfaction and a search for alternatives. For those spurred by such vision, the negative stereotype of blight no longer presents a barrier to appreciation of city environments, made richer by their ethnic diversity.

It must be added, however, that other young suburban expatriates have been attracted to farming. These people's aspirations may seem different from their urban counterparts; but maybe they are not. Can New Urbanism offer a conceptual home for them, too? It might—if it could be broadened to include sustainable organic farming.

According to farmer Robbins Hail of Bear Creek Farm in Osceola, Missouri, the most manageable organic farm requires only eight acres, a size that can also produce enough revenue to support a family comfortably. Processed foods, which, of course, are part and parcel of the fuel age, could remain the purview of industrial farming on huge tracts in the hinterlands. But sustainable farming could be integrated far closer to, or even within, new pockets of urbanism.

Life on a farm in the middle of nowhere can be pretty unappealing. But given a place within the urban realm, sustainable farming might both reduce agriculture's impact on natural ecosystems and allow a rethinking of the isolation of farm life. Furthermore, if we remember the lessons of Pienza, farming's presence might enhance the quality of urban life.

Above: Pienza transect. Drawing by Elizabeth Plater-Zyberk.

Agriculture and the New American City

Using the Pienza example, cities might consider selecting their most arable available land and reserving it for farms. The availability of such land is greater than one might imagine, as the plans showing the de-densification of a part of Detroit from 1950 to 1990 indicate. In particular, so-called brownfields, once the sites of important industries, today approximate the size of agricultural areas. If these abandoned sites could be reclaimed and joined into a continuous belt, the same self-reinforcing edge identified at Pienza could help give form to American cities.

Some may worry that former factory lands may be too contaminated to safely grow food. However, one might compare such concerns to those over American waterways not long ago. After a clean-up period, these waterways are now healthy and productive.

Some may also argue that adequate legal mechanisms exist to create viable agricultural edges around American urban areas. In Oregon, for example, growth boundaries have been used to protect farmland and contain urban development. Other places—such as Lexington-Fayette County, Kentucky; Baltimore County, Maryland; and Lancaster County, Pennsylvania—combine such growth boundaries and agricultural zoning with the purchase of development rights from farmland owners. Since farmland near metro areas may be worth far more for growing houses than for growing crops or raising livestock, these legislative practices are vital to counteract the pressures of the marketplace.

Good and necessary as these legislative efforts may be, however, they still segregate agriculture from urbanism. Legislated growth boundaries also have yet to be shown to be effective at producing compact walkable neighborhoods. Meanwhile, the farms they seek to preserve are precisely those mid-size tracts destined for extinction under the onslaught of the mega-farm. Legislated and development-rights efforts do offer legal frameworks for resisting the marketplace, but they need further enhancement through New Urbanism to amount to true community-building.

New Urbanists have the tools to interpret successful enterprise from the past into sustainable practices for the future. Rather than preserve tottering 40- to 320-acre tracts, New Urbanists might propose that arable land close to urban development be subdivided to make it more desirable for organic farming. One method would be to create narrow strips, say 2,640 feet (1/2 mile) by 132 feet (or perhaps even more sliver-like), so that each tract would be about eight acres (to meet the Hail standard). Two to three





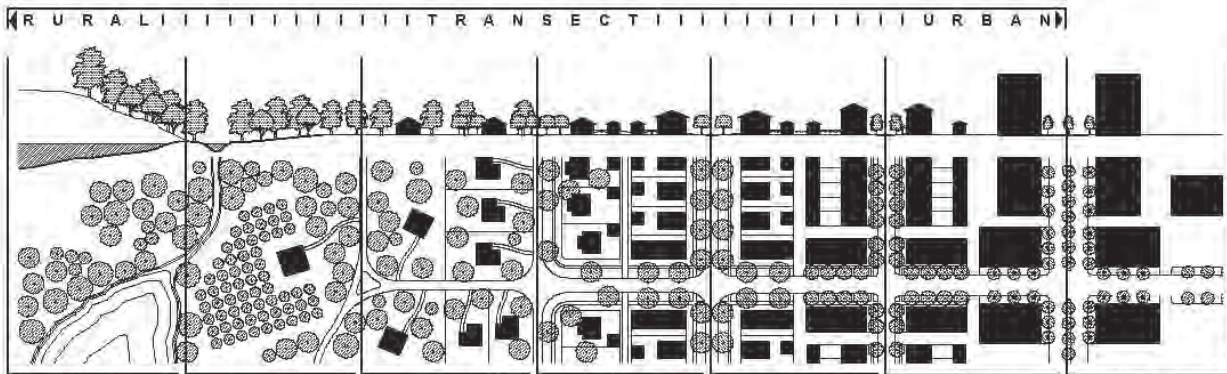
tracts could then fit next to each other within a typical city block, and farmhouses could mix with other houses on the streets abutting the fields. If enough fields could be massed together (the more the better to feed and ring the city), they might eventually create an agricultural edge with a similar, exhilarating effect as at Pienza.

Clearly, sustainable farming already nudges at the gates of our cities in a nascent movement known as Urban Farming. It is important to carefully and quickly observe the lessons of Pienza so that farming can be reintroduced to urbanism for the greater public good. In the end, a joining of agriculture and New Urbanism might rekindle the promised utopia of "civitas."

Notes

1. I am referring to the frescoes of "Good Government" and "Bad Government" by Ambrogio Lorenzetti in Siena's Palazzo Pubblico (1338), which depict how the best in government and urban design bring out the best in human nature.

Above: The de-densification of Detroit has created possibilities for reintroducing agriculture to the city. Drawings courtesy of Douglas S. Kelbaugh, Taubman College of Architecture and Urban Planning, University of Michigan.
Opposite: Some initial attention has been given by New Urbanists to food production in and around cities, but more is needed. This depiction of an agricultural transect shows how food can be grown virtually anywhere—so long as the scale and technique are appropriate. Drawing courtesy of Duany Plater-Zyberk and Co.



- **Wilderness:** an area approximating the natural condition which is to remain perpetually uncultivated and sparsely inhabited, such as a forest, a mountainside, or a desert. Berries may be picked and certain game taken with permission.

- **Farmland:** an area for the cultivation of crops and the raising of livestock. Farming at this scale requires early morning use of machinery, spraying, and heavy fertilizer. It is not compatible with residential areas.

- **Hand-Tended Agriculture:** cultivation of high retail value can be hand-tended. The planting, pruning, fertilizing and harvesting can be done by hand and thus is compatible with urban areas, even in close proximity.

- **Kitchen Garden:** a portion of a private yard for the small-scale cultivation. Kitchen gardens are expected to be utilitarian in appearance and maintenance and, as such, restricted to the backyards. If dedicated to raising chickens or rabbits (viciculture), the kitchen garden should be walled. Permission for viviculture in an urbanized area should be by consent of neighbors.

- **Community Garden:** a grouping of garden plots available for small-scale cultivation, generally to residents of apartments and other dwelling types without private gardens. Community gardens should accommodate indivíual storage sheds. Community gardens are valuable for their recreational and communal role, similar to that of a resort cabins. *Syn.:* **Allotment Gardens**

- **Container Gardening:** The growing of food crops in a container ranging from 5-gallon buckets to bathtubs. The increased amount of soil allows the growing of larger vegetables like tomatoes, peppers, and cucumbers, and more of them than you could in balcony boxes. Useful when the yard soil is polluted.

- **Balcony Boxes:** for apartments that do not have a yard, the possibility of planting on windows, balconies and terraces could provide for fresh herbs and the comfort of growing something green.

Walking the City: Manhattan Projects

Ben Jacks



Above: A cast-iron staircase leads down to High Bridge, the oldest bridge in Manhattan. Photo by Caleb Smith.

How do we know and position ourselves within cities? How do we lay claim to belonging in complex urban landscapes? Quite simply, we walk: we survey terrain. We wander, we see, and we are seen.

Today, however, the walking city is largely the city of the past. In urban landscapes dominated by traffic flows and transportation networks, automobiles and mass-transit systems, walking can be alienating. We may now experience urban spaces in fragments through walking; but to begin to assemble a sense of a city, region, or territory requires sorting through layers of abstraction. The contemporary city is an assemblage: fractured parts of the traditional walking city, districts of modernist reform, and jumbles of late-capitalist consumer "experiences." Simultaneity, fragmentation, and ephemerality characterize this postmodern condition. Can walking, an old way of laying hold of the city, still help us in this altered spatial, temporal, and conceptual field? This survey of intentional walks in Manhattan suggests walking does still offer a valuable means of understanding cities.

Choosing to Walk

Intentional walking projects by individuals and organized groups range from whimsical undertakings to acts of political protest. I selected the projects described here because they represent a full range of realized possibilities, because each is well documented, and because they suggest unusual ways we might see, know, understand, and advocate for places and cities. I also chose to limit this survey to projects circumscribed by Manhattan's shores. Manhattan embodies many of the postmodern city's characteristics: an extensive, fragmented, and alienating grid; a

juxtaposition of old and new; a rich and complex historic landscape; an existing fabric reconfigured by urban renewal and transportation infrastructure; a dramatically increased security state apparatus; and extensive environmental degradation.

Although walking projects have been undertaken all over the world, each selection here is distinct, representing a particular kind of undertaking. Together, the projects shed light on the territorial practices of laying claim to the postmodern city, and suggest ways of embracing and rethinking urban landscapes.

Walking has captured the imagination of artists and writers in a variety of ways, places and eras. A contemporary way of thinking about walking, begun in the early twentieth century with dada and the Surrealists, and continued by the Situationists, is as a subversive activity. But the idea of subversive walking also obscures its ordinariness. Elsewhere I have described how ordinary walking practices might lead designers and citizens toward a greater aesthetic and social vision.[2] Here I describe how these particular walking projects work as territorial practices.

Even in the absence of explicit politics, intentional walking represents a means of reasserting a territorial hold in response to current conditions; the walks attempt to deal with the daily challenge of alien and alienating territory. Through these projects it is possible to see the coalescence of communities around what urban geographer Edward Soja calls "shared spatial consciousness."[3]

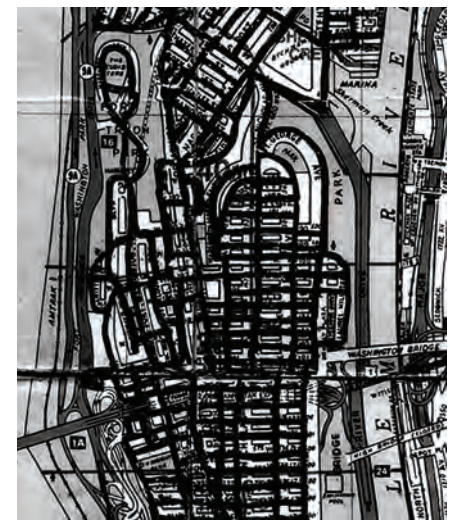
To theorize their activities, many contemporary enthusiasts of walking as a critical spatial practice recall mid-twentieth century Situationist ideas such as psychogeography and the drift. Psychogeography broadly refers to the study of the effects of the physical environment on individuals. The drift is an intentionally aimless walk, involving both structure and chance, designed to provide a fresh encounter with the city and uncover its fragmentary nature.

Also inspiring to contemporary walkers is the work of mid-century theorist Michel de Certeau. De Certeau described the potential of the tension between the established order and what people do in their everyday lives.[4] He opened his essay "City Walking" in *The Practice of Everyday Life*, for example, from a vantage point on top of one of the two World Trade Center towers.[5] He then took on for a moment the role of the all-seeing scientist content (or stuck) within the frame of the dominant "rational" consumer-capitalist order so we might be able to see beyond the official frame. By illuminating people's everyday practices, de Certeau hoped to expose the myriad ways the weak (most of us), trick, trip up, and play with the system. The order that threatens to oppress, he noted, is a "sieve order," shot through with holes, between and within which individual maneuvering is possible.

The projects that follow reveal the challenges and opportunities for intentionally entering, maneuvering in, and laying claim to the spaces of the everyday.

Caleb Smith: "Every Street in the Grid"

The idea of walking every street in the grid of Manhattan occurred to Caleb Smith as the result of coming across a church—the Church of the Transfiguration, "The Little Church Around the Corner," on 29th Street near Fifth Avenue. The church is set back from the street, and it occurred to Smith that countless other such



jewels lay hidden on the more than 3,000 blocks of Manhattan. He would have to walk every block if he hoped to discover New York's hidden treasures.

Accomplishing the task of walking every block was not Smith's goal particularly—but rather exploring, "sightseeing," and reveling in what he considered the "celebrity" and "glamour" of New York in contrast to his hometown of Albuquerque, New Mexico. Wandering off the beaten track was also something he had learned from his parents in the open spaces of the West, and urban exploration was just an extension of that early experience.

Smith began by walking in a new neighborhood every time he went out of his apartment and then reading about it when he returned home. Then he began marking off on a map every block he had walked. Soon he decided on a few rules: he would always walk alone, and he would carry a camera, a notebook, a map, and a

Above: Caleb Smith carried a map and a pen to record his progress walking every block in Manhattan. Courtesy of Caleb Smith.

pen to mark off completed blocks. For Smith, these rules defined his "official" walking, in contrast to other walking he might do. The project took him two and a half years to finish, and he has now written about the walk and his favorite places, and posted his map and photographs on his website.[6]

Smith's walk was motivated by a love of the city and a willingness to explore, and he documented it without a trace of irony or political posturing. By walking every street, Smith uncovered layers of past and present city life, linking places with public events and memories. In his description of the walk he expresses his particular enthusiasms: objects in cast and wrought iron, boot scrapers, coal hooks and chutes, uniquely regional and hybrid ethnic foods, and the physical evidence of historic events. The work not only documents treasures hidden within the grid, but draws attention to the idea that individuals can connect with authentic urban spaces and places through walking.



Jim Naureckas: *New York Songlines*

Another project insisting on the knowability of the city is *New York Songlines*, an interactive map of Manhattan in the form of a simplified grid organizing a collection of hyperlinks.[7] The preamble to the map compares Manhattan's straight streets to Australian aboriginal songlines, and explains how the song-stories of Aboriginals guided people across the land by way of physical features. Concluding that the aboriginal songline was a way of organizing large amounts of information—through myths, rituals, and sacred sites—the site's author, Jim Naureckas, argues that "the Web is our technological society's closest equivalent."

Naureckas contends people don't have much of a sense of place and may go past the same buildings hundreds of times without ever really looking at them. A certain mindlessness has developed because it is so easy to get around the city using knowledge of the grid, a few signs, a subway map, and taxis. In answer to this condition, *New York Songlines* offers "virtual walking tours of Manhattan's streets" that uncover New York's own giants, heroes, and monsters. The walker is not following a path by remembering landmarks, but rather uncovering landmarks and stories by following a path.

New York Songlines is the result of a kind of reverse engineering of grid organization: its power comes from the combination of the hyperlinked Web and the city grid. The result is a convenient way to organize a map of Manhattan that can afford to ignore conventional cartographic representation. By emphasizing the grid as an organizer of texts, the map creates and advocates a rich reading of urban landscape and place.

Shorewalkers: *The Great Saunter*

Shorewalkers, a nonprofit environmental and recreational group, takes an on-the-ground approach to knowing Manhattan. Since 1985 it has organized *The Great Saunter*, a walk around the approximately 32-mile waterfront edge of the island.[8] The event begins early in the morning at South Street Seaport and proceeds clockwise, ending just after dark. The event has involved as few as seventeen people, to one year more than 500. Volunteers scout the route in advance for barriers and bathrooms, and plan the walk as close as possible to the water's edge.

Shorewalkers' mission is "to enhance, enjoy and protect the parks, promenades, and paths along the waters throughout the New York metropolitan area." The group's activism has contributed to the establishment and development of the Manhattan Waterfront Greenway, a continuous path around Manhattan linking public parks, providing recreational opportunities and waterfront access.



Walking can be a kind of physical manifesto. In the case of *The Great Saunter*, the walk, like much successful protest and advocacy, is explicitly for fun but also makes a clear political statement. Cy Adler, a founder of Shorewalkers, in his guidebook *Walking Manhattan's Rim: The Great Saunter*, remarks on the citizen's ability to speak out in support of the environment. According to Adler:

Above: Walkers on *The Great Saunter* in 2004, near 150th Street west of Harlem. Photo by Mark Lentz
Opposite: A schist outcropping in Hamilton Heights. Photo by Caleb Smith.

"No activity symbolizes the essence of conservation more than walking."[9]

The act of walking the edge of Manhattan also suggests a city foundation ritual. In this case, the ritual has been repeated annually for the past twenty years, reflecting ongoing concern for the limits and environmental impact of human inhabitation of the Earth. As citizens and claimants, members of Shorewalkers walk to advocate an environmental understanding of territory.

Surveillance Camera Players and the Institute for Applied Autonomy

Shorewalkers is not alone in its use of walking for political activism. Surveillance Camera Players (SCP) has protested the use of closed-circuit TV cameras in Manhattan since 1996, creating plays for "bored surveillants" (those who must watch the cameras), continuously updating maps of camera positions, authoring position papers, and encouraging other surveillance camera protesters. Beginning in 2000, it also offered walking tours.[10] Each tour (nine were offered in the summer of 2005) is based on maps that identify all the known surveillance cameras in a particular zone of the city.

SCP reasons that cameras do not

aid in the prevention of crime; nor do their operators have much interest in preventing it. Rather, private security cameras are sold to document events surrounding insurance losses. Thus cameras proliferate in wealthy neighborhoods, where building owners receive insurance discounts for them; meanwhile, in poor neighborhoods there are few cameras regardless of the level of crime. Those in favor of surveillance cameras argue that they reduce crime by inducing paranoia in criminals. But SCP counters that surveillance cameras cannot do so selectively, and are intended to induce paranoia in everyone.

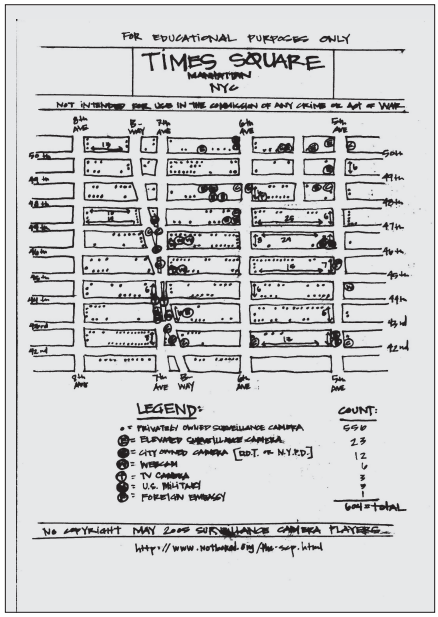
Some press coverage, quoted on the SCP website, has attempted to position SCP founder Bill Brown and fellow members of the group as paranoid. In response, Brown has claimed both "I am *very* paranoid" and "the group isn't and refuses to become paranoid." Paranoia, in Brown's analysis, is primarily a condition of those who support the present installation of more than 15,000 surveillance cameras on Manhattan streets. Activities such as SCP's help resist such a condition.

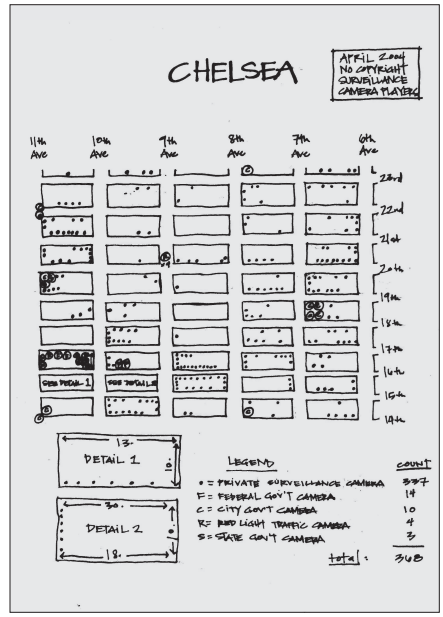
As the work of SCP makes clear, it is now almost impossible to walk in Manhattan without encountering a surveillance camera—there are on average perhaps five to ten on every block. But if one wanted to take such a walk, the Institute for Applied Autonomy (IAA) has created *iSee*, an interactive Web-based map of camera locations.[11] The user can enter a starting and stopping point for a trip in Manhattan, and, provided the map data is up to date, *iSee* will generate a route that avoids them.

In answer to the question, "Who should use *iSee*?" the IAA website suggests "minorities, women, youth, 'outsiders,' activists, and everyone else." IAA points out surveillance cameras are unregulated and do very little to reduce crime. Rather, police and security guards watch minorities and young men because of their appearance; women voyeuristically; "outsiders" (including people surveying for surveillance cameras) and activists engaged in legal dissent; and ordinary people who might be caught on camera kissing a lover or visiting a psychiatrist.

In answer to the question, "But what's the harm?" IAA points out that footage from surveillance cameras is mostly privately owned, and may be broadcast without consent. Increasing sophistication—networking and facial-recognition software—will only compound these problems. Perhaps of greatest concern to IAA are the social and psychological effects of a surveillance society. The *iSee* map is designed to mirror the use of surveillance cameras, paranoia for paranoia, social caution for social caution.

While the issues raised by anti-surveillance groups remain unresolved, the proliferation of closed-circuit cameras seems inevitable and unstoppable. Anti-terrorist intelligence-gathering efforts have expanded greatly in response to 9/11, including the coordination of cameras controlled by an increasingly covert and militarized New York police.[12] The projects by SCP and IAA, while expressing opposition to a state-controlled corporate landscape, point out the range of forces and interests, public and private, that contribute to the proliferation of surveillance cameras.





Above: The Surveillance Camera Players maps that were used on walking tours of Chelsea and Times Square. Drawings by Kelly Shields.

Opposite: Dario D'Aprile uses baking flour to create a pedestrian crossing in *Street Stripes with Memory*. Photo by Christina Ray.

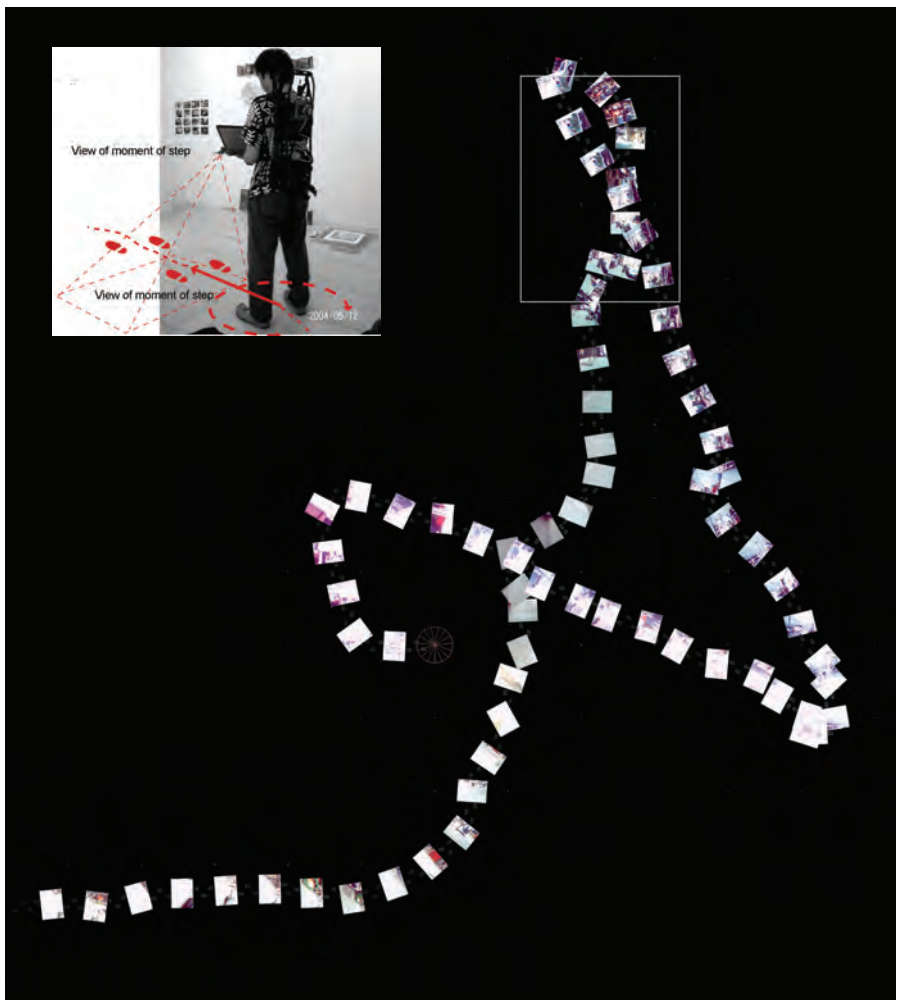


Glowlab and Conflux

Explicitly inspired by Situationist ideas, the annual Conflux is a conference and public festival concerned primarily with "current artistic and social investigations in psychogeography."[13] Hosted by Glowlab and held in New York in 2003 and 2004, the conference seeks to bring together "visual and sound artists, writers, urban adventurers and the public to explore the physical and psychological landscape of the city."[14] Most conference events involve some form of walking around and direct experience of the city.

NewCopenYorkHagen, for example, a project of Anna María Bogadóttir and Malene Rørdam of Copenhagen, superimposed a tourist map of Copenhagen over New York to make an "investigation in the field of placement and re(dis)placement."[15] The tour defined by the reworked map led participants to a series of monuments and tourist attractions. In addition to the map, participants received postcards further identifying the tourist sites, which they used to write about their trip to "Copenhagen" and send home; and at each tourist attraction, participants were given a Danish souvenir. The project intended to produce a feeling of disjunction and displacement, while spoofing the superficiality of the tourist experience, in direct reference to Asger Jorn and Guy Debord's *Psychogeographic Guide to Paris* of 1956.

Odin Cappello's *Navigazing*, while psychogeographically inspired, sent participants out into the city with viewfinder cards and chalk to view and share the aesthetic experience of framing.[16] Cappello's instructions included a suggestion that the city is filled with "narrative artifacts, points of visual, or aural interest that



suggest the existence of a story, either real or fictional." Participants were asked to use the viewfinder cards to frame such story elements, and to use chalk to record positions on the pavement, potentially drawing in other participants and passersby. At the end of the event participants gathered to talk about their experiences. Cappello intended that participants would develop a physical and psychological awareness of the environment that would be both "objective and artistic."

Another project, Dario D'Aprile's *Street Stripes with Memory*, used flour to stencil faux pedestrian crossings. A video camera then recorded the effects over time of people and cars using the crossing. D'Aprile's interest was in the "resistance time of urban furnishings made by flour," and "to characterize and create traces and ways inside the urban space."[17]

As a clear and significant change from earlier psychogeographical experiments, however, many Conflux projects also involved digital mapping, transmitted instructions, and other uses of computers as tools and as the medium of communication. Noriyuki Fujimura's *Footprint Mapping*, for example, deployed a backpack with a pedometer, a compass, a webcam, and a computer "to create a digital map of streets and public spaces by gathering 'footprints' of participants."[18] The collected walk images were then collated in a single map.

While most of these projects were conceived largely as discrete conference activities, some have also developed a continuing life on the Web. *One Block Radius*, a project of Christina Ray and Dave Mandl (founders of Glowlab and Conflux), involves a website to gather information on the city block completely destroyed to build the New Museum of Contemporary Art.[19] Conceived as a navigable online map and database, the site collects "the amount of information one would normally find in a guidebook for an entire city." People having direct experience walking the block contribute various kinds of material: photographs, video, artwork, historical narrative, and creative writing. The idea is to use a virtual environment to preserve an enormous volume of subjective information to re-create public space. The "multi-layered portrait of the block as it has never been seen before (and never will be seen again)" constitutes "an extensive psychogeographic survey."

Like Jim Naureckas's online project *New York Songlines*, *One Block Radius* supports an ethos of city walking. The project makes it possible to gather, interweave, and share information from individual pedestrian perspectives, celebrating the richness and complexity of urban space.

Above: Noriyuki Fujimura created a digital map of a walk using a backpack outfitted with a pedometer, microprocessor, webcam, and laptop in *Footprint Mapping*. Courtesy of Noriyuki Fujimura.

Reconnecting the Urban Territory

The projects described here illuminate ways we might better understand, appreciate, or advocate for urban experience. Walking every street in the grid temporarily unearths a collection of memories in physical things. Walking around Manhattan reconsecrates the city and reestablishes human connection with the environment: the territory so described is called out as part of a natural ecosystem. Walking on a tour of surveillance cameras protests their proliferation, the police state, and the loss of civil liberties. Walking a Situationist-inspired psychogeographical drift makes a surprising poetic experience out of the raw material of the city. Each such act of walking reconnects us, no matter how temporarily, to where we are and who we are.

In "City Walking," Michel de Certeau likened walking to reading, finding in both practices everyday opportunities for slipping the grip of the established order. *Tactics*, as opposed to *strategies*, are the weapons of the weak; tactics arise in everyday practices such as cooking, reading and walking. We walk and read and cook how we will, in the gaps left in the prevailing order of the expansionist economy, between and in spite of the strategies of the corporate order. Employing strategies and tactics has everything to do with knowing and belonging in territory, whether conceived of as the all-encompassing, ever-expanding territory of consumer capitalism and globalization, or the tactical territories of everyday life.

Quotation—"poaching," to carry forward one of de Certeau's playful ideas—is the backbone of walking, as well as of reading (and writing). Quotation empowers individuals. When we walk we are quoting walkers who have come before us, and performing turns on each quotation. In the process we create and claim the narratives and spaces of the city: abstract urban systems become habitable.

For urban dwellers and designers, walking is a fundamental tool for laying claim to, understanding, and shaping a livable city. Walking yields bodily knowing, recovers place memory, creates narrative, prioritizes human scale, and reconnects people to places.

The projects described here draw attention to everyday walking. Whether intentional or self-conscious, personal, activist, or avant-garde, they reaffirm lived experience.

Acknowledgements & Notes

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1. Sam Bass Warner, *Streetcar Suburbs: the Process of Growth in Boston, 1870-1900* (Cambridge, MA: Harvard University Press, 1962).
2. Ben Jacks, "Reimagining Walking: Four Practices," *Journal of Architectural Education*, Vol.57, No.3 (February, 2004), pp. 5-9.
3. Edward W. Soja, "Thirdspace: Expanding the Scope of the Geographical Imagination," in Alan Read, ed., *Architecturally Speaking: Practices of Art, Architecture and the Everyday* (New York: Routledge, 2000); and *Thirdspace: Journeys to Los Angeles and Other Real-and-Imagined Places* (Cambridge, MA, and Oxford, U.K.: Blackwell, 1996).
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5. Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendell (Berkeley: University of California Press, 1984), p. 91.
6. Caleb Smith, "New York City Walk," December 2004, http://www.newyorkcitywalk.com/html/about.html (May 19, 2005).
7. Jim Naureckas, "New York Songlines: virtual walking tours of Manhattan's streets," http://www.nysonglines.com/ (May 23, 2005).
8. Shorewalkers, http://www.shorewalkers.org/ (May 13, 2005).
9. Cy A. Adler, *Walking Manhattan's Rim: The Great Saunter* (New York: Green Eagle Press, 2003), p. xiii.
10. Surveillance Camera Players, http://www.notbored.org/the-scp.html (May 26, 2005).
11. Institute for Applied Autonomy, http://www.appliedautonomy.com/isee.html (May 17, 2005).
12. William Finnegan, "Terrorism Beat: How is the N.Y.P.D. Defending the City?" *New Yorker*, July 25, 2005, pp. 58-71.
13. Psy.Geo Conflux 2004 press release, http://www.psygeocon.org (May 20, 2005).
14. Christina Ray told me in correspondence that Glowlab is now using the name Conflux for its annual festival instead of the more cumbersome Psy.Geo Conflux. In 2005, Glowlab did not hold Conflux in New York, but instead lent its support to a similar event, "Provflux," held in Providence, Rhode Island. Conflux will take place again in New York in Fall, 2006. Glowlab is "an artist-run production and publishing lab focusing on public space as the medium for contemporary art and technology projects." It produces a bi-monthly online magazine (http://www.glowlab.com).
15. Psy.Geo Conflux, projects: New Copen York Hagen, http://glowlab.blogs.com/psygeocon/2004/02/participant_06.html (September 14, 2005).
16. Psy.Geo Conflux, projects: Navigazing, http://glowlab.blogs.com/psygeocon/2004/02/participant_07.html, (September 14, 2005).
17. Psy.Geo Conflux, projects: Street Stripes with Memory, http://glowlab.blogs.com/psygeocon/2004/02/participant_47.html (September 14, 2005).
18. Psy.Geo Conflux, projects: Footprint Mapping, http://glowlab.blogs.com/psygeocon/2004/02/participant_12.html (September 14, 2005).
19. Psy.Geo Conflux, projects: One Block Radius, http://glowlab.blogs.com/psygeocon/2004/02/participant_23.html (September 14, 2005).

Experiencing Art in the Montreal Landscape

Nicole Valois



It is quite common in major cities for cultural events to be held in streets and public spaces. Montreal, the largest French-speaking city in North America, is no exception. Over the past twenty years the number and diversity of such events has grown steadily, and now includes both major performing-arts spectacles such as the Montreal Jazz Festival and smaller visual-arts events produced by galleries, museums, or independent artists.

By making original use of public areas, such events help form a city's social and cultural identity. As understanding of the city becomes entwined with the experience of art, spectators may develop a powerful new relation with place. Two recent installations, *Ice Cinema* and *Desert*, show these processes at work in the reshaping and redefinition of Montreal's urban landscape.[1]

An Icy Urban Environment

Ice Cinema was produced in 2002 in the neighborhood of Mile End by Marc Ahr. Originally from Russia, Ahr earns a living painting urban and sports scenes around the world and selling prints of them, often at the scene portrayed. But he is also a keen observer of urban life and has created many temporary art installations. When he wanted to liven up his neighborhood in the middle of winter, he built an igloo in front of his home and projected his own films inside.

To situate the project in context: Mile End is a where many Portuguese, Italian and Greek immigrants first settled in Montreal, and where many still live in three-story rowhouses set slightly back from the street. Known for its diversity, the neighborhood contains all kinds of brightly colored storefronts, and in summer its front yards are full of flowers, grapevines and religious icons. Such characteristics have also made it an appealing place for artists to live.

Made of colored blocks of ice, Ahr's igloo immediately aroused great interest. It took over his entire front yard, measuring about three meters square, with room inside for eighteen people. Its magical qualities were most evident in the evening when the light of the film projector emphasized its translucent quality. Ahr's films transported viewers to his native Moscow, a distant cityscape, yet one oddly similar to Montreal's when covered in snow. Screenings were programmed on weekends from January to March, when Montreal's temperatures can drop to -40 C.

What started as merely a fun idea soon became a neighborhood event. During construction, neighbors would

lend a hand, supplying blocks of ice or bringing hot soup to the builders. However, since winter in Montreal offers few opportunities for casual public encounter, when *Ice Cinema* was up and running it also became a place to stop and talk with the artist or other curious bystanders. Emerging at the end of a screening, vodkas in hand, spectators might bump unexpectedly into acquaintances watching the show from the street. Animated by color and light, it was, for several weeks, the place to be, the neighborhood attraction, a landmark, and a topic of discussion.

In some ways, Ahr's construction was also analogous to a garden. As the season progressed, the igloo was subject to the vagaries of changing temperatures, forcing him to perform constant maintenance. One day, snow would have to be removed; another, the blocks of ice would require "polishing"; another, the structure would need to be stabilized. Like a gardener, Ahr tracked weather forecasts and planned the program accordingly.

The milder the weather became, the more the igloo changed, and through the final days of winter, its original form became increasingly unrecognizable. But this final transformation did not discourage Ahr. He simply improvised other shapes until it had melted away entirely. More than just an attraction, the project was a tribute to winter and the changing seasons, reminding Montreal residents of how snow and ice help define their city.

Opposite: The ice cinema, made out of blocks of plain and colored ice celebrated art and community in wintertime Montreal. Inset: The artist, Marc Ahr, continually reworked the igloo until it totally melted in late March. Photos by author.

Rediscovering a Marginal Site

At quite a different scale and over a shorter period of time, *Desert*, the "Sixth International Video and Electronic Art Manifestation," was organized in September 2004 by the nonprofit Montreal arts organization Champ Libre. It brought together artists, art historians, and curators over a two-week period to display work, give presentations, and hold panel discussions. However, the special quality of the event largely grew from the originality of its site—one of the city's 1960s-era municipal garbage incinerators.

The incinerator is a huge, doorless concrete structure topped by two enormous chimneys and accessed by a seven-meter-high ramp (which garbage trucks once drove up to dump their loads). Now abandoned, its future, and that of other nearby industrial sites, has not yet been decided. But in addition to supporting the technical requirements of the event, its unusual spatial qualities and powerful symbolism as an industrial "wasteland" proved ideal.

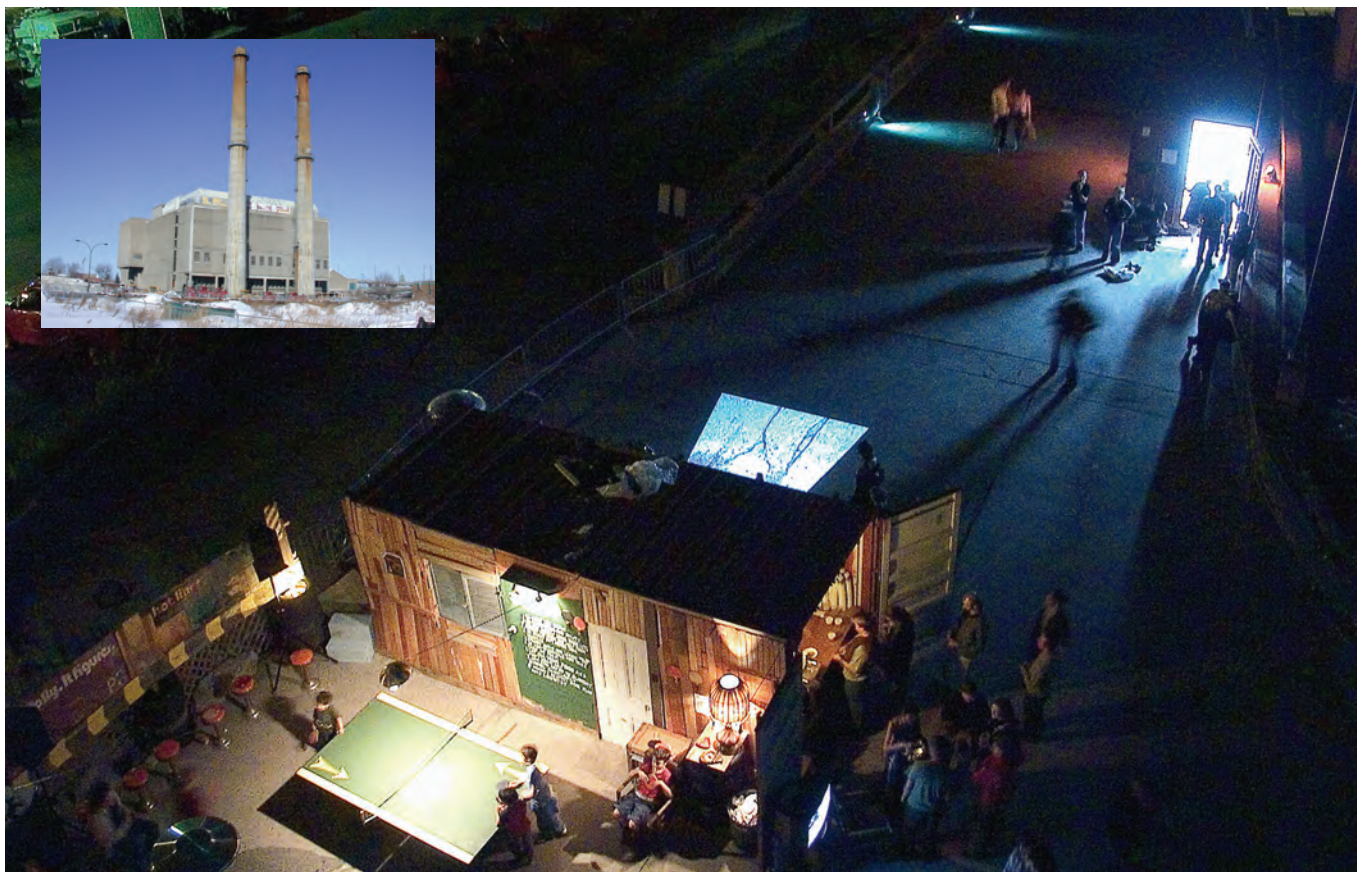
Seeking to inspire the artists around a common theme, the organizers skillfully wove the words desert, fire and regeneration around the words incinerator, abandoned, and uninhabited. A "desert" clearly refers to a hot, lifeless land. Yet heat is also an important element in the operation of an incinerator. "Desert" has also been used metaphorically to describe abandoned industrial sites. The catalogue for the event further encouraged visitors to engage in associations between the desert, contamination, the incinerator site, and the city.[2]

The layout of installations at the event was also carefully planned to evoke these themes. The circuit started at the street, continued along the access ramp (where many exhibits were housed in huge shipping containers), and finished at the top, at the threshold of the incinerator. A few artworks—but very few because of safety concerns—were located inside the building. At night, videos were also projected on the outside walls, where they were visible from the entire site.

In addition to the artwork, a highlight of the event was an unusual sequence of views from the incinerator's curving ramp, including panoramas of downtown and Mount Royal, two emblematic Montreal profiles. The views allowed a visitor's search for meaning to migrate from the works of art, to the spatial configurations of the site, to the city—each aspect informing the others. In this nested system, each scale commented on every other: the artwork spoke of the object in which it was contained (the container), which spoke of the place in which it was situated (the incinerator), which spoke of Montreal (through views of symbolic landmarks).

Although a desert is a hostile environment, not conducive to walking or stopping, intrigue does create the desire to journey through it. Paul Laurendeau, the architect responsible for the exhibit site, used this sense of curiosity to move spectators from one installation to the next. In the event catalogue he spoke explicitly of the need for a mobile spectator.[3]

He also made an analogy to the gardens of Le Nôtre, where the sight of distant elements arouses strollers' curiosity, encouraging them to move from one spot to the next. What he did not mention was that in Le Nôtre's gardens, the distant view is also an important structuring element. This was exactly the effect produced by the juxtaposition of containers, the incinerator, and distant views of Montreal landmarks as visitors ascended the ramp.



Giving Experience Its Due

Both art events highlight the importance of experience in understanding the qualities of place. In particular, they indicate how a combination of walking and staged artistic events can be instrumental in shaping understanding of the urban environment.

As a mode of travel, walking conditions the way the gaze falls on near and far. Whether through directed efforts or aimless meanderings, it can be crucial in structuring a sense of place.[4] For the walker or stroller coming upon *Ice Cinema*, surprise first yielded to a closer examination of the object, and then to an appreciation of its siting within the frame of the street. "Desert" made this same back-and-forth awareness possible by allowing alternating glimpses of symbolic icons and closer examination of artwork, the incinerator building, and the videos projected on it.

In both cases, walking provided a way to appreciate the work itself, the impact of the work on the meaning of the site, and the meaning of the site within the city. Walking effectively enabled understanding of one through the other, within the framework of individual and collective heritage.

Staged events can also be used to discover the meaning of place. By holding *Desert* at a marginal site that had no previous arts vocation, visitors were encouraged to reflect on the role of art and its value in revealing unusual, marginal and inaccessible aspects of the city.

Yet at the same time that *Desert* helped reignite debate about preserving "machine buildings" in Montreal, residual pollutants raised contradictory questions about heritage preservation, the environment, recycling, and new materials in architecture.[5] The reality is that mechanized burning of garbage at the incinerator once spewed toxic dust over surrounding residential neighborhoods. And this past was brought home by the fact that many of its walls and floors remain so contaminated that curators could use only a small portion of its interior. Awareness of these restrictions emphasized how waste disposal remains a societal problem, an insight denied as long as the site remained unfamiliar and beyond access.

Ice Cinema also helped raised social awareness. In addition to attracting a large number of neighborhood residents, it was covered in the newspapers, and a TV station broadcast a story about it during prime time. It also drew the Premier of Quebec (on a strictly personal basis). *Ice Cinema* both helped Mile End gain attention as a cultural milieu and drew attention to the importance of the street as an important public place of expression.

Ice Cinema also led to reflection on how little consideration is given to snow as a playful element of the Montreal experience. Everyone agrees the city is beautiful after a snowfall, and snow makes kids happy. Snow also muffles sound, makes reflected lights look brighter, and softens the edges of sidewalks, roads and yards, obscuring the divide between public and private. Yet much of its enchantment is mitigated by snow-removal equipment which clears public areas within 24 hours. In Quebec, snow is celebrated by winter sports enthusiasts, but denigrated by drivers and pedestrians. Ahr would rather Montreal residents forget the difficulties snow creates and enjoy themselves in the cold by staying warm in his igloo.

Revealing Places

The political and social aspects of art have recently been questioned by artists who focus on specific urban and architectural forms.[6] Others have written about how the experience of art in a public place is open to meanings we give it, individually and as a group.[7] Through both content and siting, *Ice Cinema* and *Desert* challenged the relationship between individuals, communities, and urban places.

The surprise of watching a movie outdoors in a structure built of ice temporarily heightened the sense of the street as a public space, allowing people to express themselves in interaction with a community. Likewise, using walking to provoke discovery of thematic relationships between artistic visions and a forgotten Montreal site opened the city to new interpretations.

Specific to the spaces they occurred, these events helped refashion understanding of the urban landscape—both as it is, and how it is interpreted. They heightened the sense of Montreal as a northern city living with the contradictions of its beauty, temporality, ugliness, and ongoing patterns of consumption.

Acknowledgment and Notes

I would like to thank Marie Lessard for her invaluable comments during the development of this article, and Peter Jacobs for his support and comments.

1. In recent years visual-arts events have also been held in a range of significant venues in Montreal, such as the Old Port (*Les escale improbables* in 2004); St. Lawrence Boulevard (*Frag sur la « main »* in 2002); and Mount Royal (*Artefact* in 2004). Such interventions, where ordinary and symbolic public places become the sites of original art, often highlight the specificities of Montreal as a northern city that has a majority French-speaking population and is therefore distinct from the rest of Canada. The specificity of place and urban experience was, for example, explored in "On the Experience of the City" by Optica in 1999. That event consisted of ten artists who chose a variety of Montreal locations for performances or interventions intended to arouse curiosity, controversy or astonishment. See Marie Fraser, ed., *Sur l'expérience de la ville: Interventions en milieu urbain* (Montréal: Optica, 1999). Also important has been the annual "State of Emergency" produced by the artists in the group Socially Acceptable Terrorist Action. Held in one of Montreal's largest spaces for a week each winter since 1998, this event consists of conferences, meals, and shows for and with the homeless, intended to raise awareness of issues of climate, sharing and survival. See www.ata.qc.ca.

2. The complete title was *Champ Libre, Désert, 6e édition du 20 au 27 septembre 2004*.

3. Paul Laurendeau, "Renverser l'espace" in *Champ Libre, Désert, 6e édition du 20 au 27 septembre 2004*.

4. The event was fairly well received in Québec's urban planning community; indeed, its plan was a finalist for the Quebec Order of Architects award in 2005. See David Theodore, "The Desert[ed]," *Canadian Architect*, Vol. 49, No. 11 (2004).

5. See, for example, Guy Bellavence, "Proximité et distance de la ville: L'expérience de la ville et ses représentations," in Fraser, ed., *Sur l'expérience de la ville*, pp. 125-39. Bellavence defines the experience of a city as the search for balance between distance and proximity, where distance is a subjective viewpoint on what one knows of its history. Also, on walking as a mode of appreciation, see Walter Benjamin, *Charles Baudelaire; un poète lyrique à l'apogée du capitalisme* (France: Petite Bibliothèque Payot, 2002; reprint of 1955 orig.).

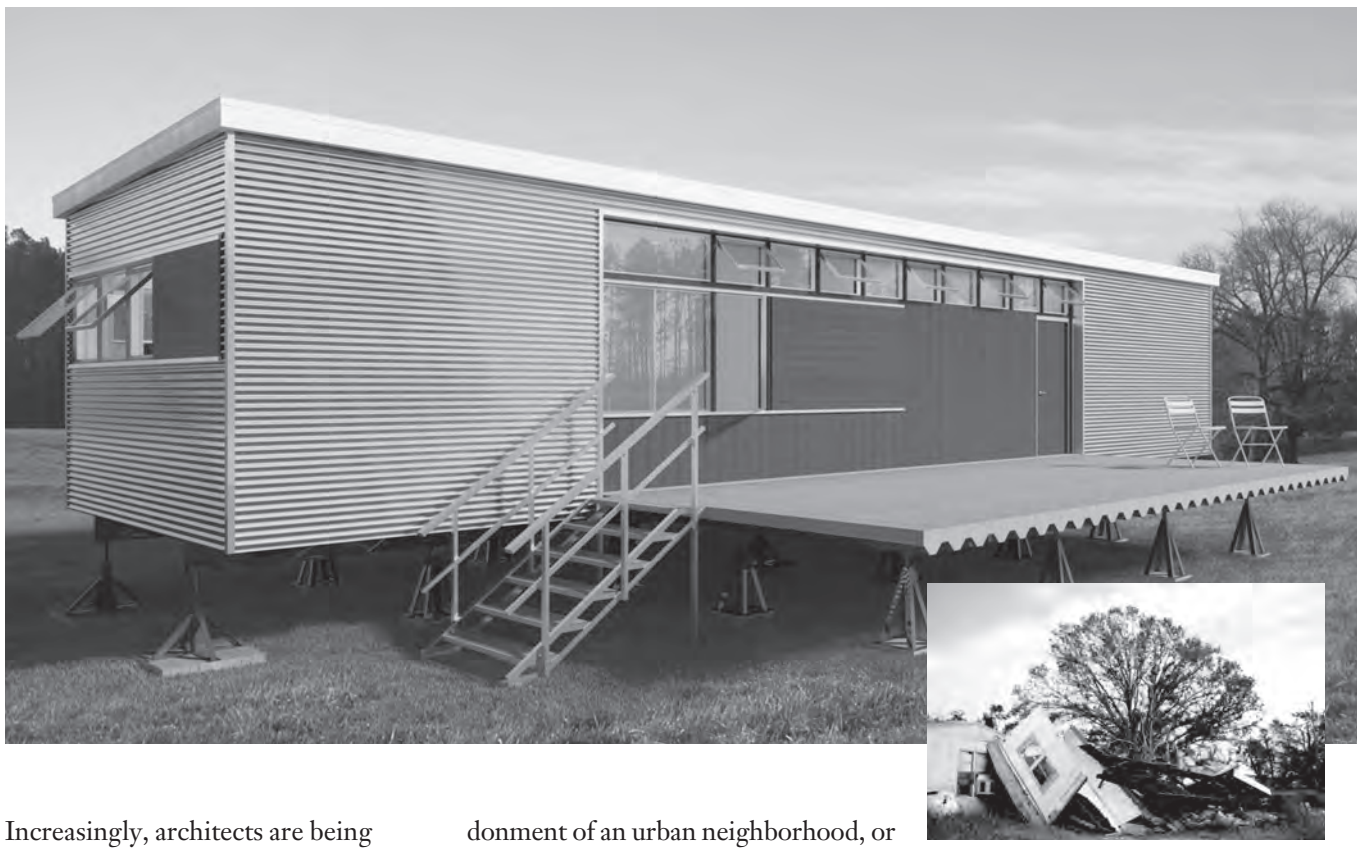
6. Rosalyn Deutsche, *Evictions: Art and Spatial Politics* (Cambridge, MA: MIT Press, 1998), and Malcom Miles, *Art, Space and the City* (London: Routledge, 1997), take a critical look at the discourses on the relationship between art and city spaces. On socially engaged art, see Suzanne Lacy, et al., *New Genre Public Art* (Seattle, WA: Bay Press, 1995). On "site-specific" art, see Miwon Know, *One Place after Another* (Cambridge, London: MIT Press, 2002). Finally, Ariella Masboungi, ed., *Penser la ville par l'art contemporain* (Paris: Éditions de la Villette, 2002) looks at the positive impact of art integration programs on the quality of urban environments.

7. Lucy R. Lippard, *The Lure of the Local: Senses of Place in a Multicultural Society* (New York: New York Press, 1997), explores the multiple meanings of place and looks at site-oriented art.

Opposite: A Montreal incinerator was the site of *Desert*, an event celebrating controversial aspects of the city's heritage as well as multimedia art. As part of the show, visitors were invited to walk up the curving access ramp to the massive structure, along which some of the art installations were located in shipping containers. Photo by Marc Gilbert. Inset photo by Josianne Gagnon-Labrecque.

Structures For Inclusion

Catriona Stuart



Increasingly, architects are being conditioned to act more like window dressers, believes Lawrence Scarpa, Principal of Pugh + Scarpa, of Santa Monica. But in his presentation to this year's Structures for Inclusion conference, Scarpa also pointed out that few enter the profession with the goal of designing pretty display cases. Rather, architects typically conceive the challenge of their profession as being to design buildings and places that meet people's real long-term needs.

Under conventional circumstances, this task can be difficult enough. But it can be even more difficult in the wake of a natural disaster, following the abandonment of an urban neighborhood, or when faced with explosive population growth. Nevertheless, such circumstances may be just when an architect's vision may be most important to recovering, rebuilding and repurposing buildings and public spaces.

Above: Design Corps' proposal for sturdy new Florida farmworker housing in the wake of Hurricane Andrew. Rendering by James Sweeney, courtesy of Design Corps. Inset: In many cases, existing housing had been blown away.

Architects from across the country shared their thoughts and work on these themes at the sixth Structures for Inclusion conference, held at the Academy of Art University in San Francisco March 24-26. The conference, sponsored by Design Corps, annually celebrates public-service architecture and community design. Design Corps is a South Carolina nonprofit which provides architectural services to traditionally underserved communities. This year's event was held in association with Bay Area nonprofits Public Architecture and Urban Ecology. Public Architecture is the originator of a national program through which design firms pledge one percent of their billable hours to pro bono public-interest work. Urban Ecology has long been involved in neighborhood revitalization and regional sustainability initiatives in Northern California.

Officially, the theme of this year's conference was "Expanding Design." Organizers noted that architecture has begun to expand its scope into other disciplines. And Scarpa, the keynote speaker, said architects can learn much from engaging with ecological, social or economic perspectives. For example, they can then use this knowledge to rethink and challenge traditional design approaches, and superimpose new concerns on top of existing practices, he said.

However, with the recent run of natural disasters—including Hur-

ricanes Katrina and Rita, the Pakistan earthquake, and the Southeast Asian tsunami—disaster relief and temporary shelter were also on the minds of many of the mostly young architects attending the conference. During one panel, Harry van Burik, vice president of Shelter for Life International, said that even during the dire scramble to meet people's basic needs after a disaster, architects can help most by designing temporary solutions that will help set the stage for long-term recovery.

Van Burik explained how he came face-to-face with this reality when he visited northern Afghanistan in 1998 following a round of deadly earthquakes there. In a mountainous landscape, amid a civil war, logistics prohibited responding with manufactured solutions, and most modern materials would have had to have been imported. Instead, using local designs, materials and labor, Shelter for Life was able to help families build small, earthquake-proof starter homes at an average cost of $610, almost half the cost of a winterized tent. These mud-brick houses were simple, yet sturdy. They were also designed so that families could add additional rooms as their recovery efforts progressed.

"Give a family shelter," van Burik said, "and they have a tool to survive. Give a family a home, and they have a tool with which to build stable communities and foster hope for the future."

Also on the panel, Laura Shipman, a Design Corps Advisory Board member, explained how similar difficulties emerged after Hurricane Andrew devastated south Florida in 1994. Until then most of the estimated 300,000 migrant laborers either lived in trailer homes, took up temporary residence in damp cement-block houses, or paid low rents for decrepit homes, she said. Following Andrew, however, Florida's housing market changed dramatically, as the storm destroyed the decaying old homes, left the block houses water-logged and moldy, and blew away (or blew apart) many of the trailers. Yet the migrants' struggle to find affordable alternatives went relatively unrecognized until an advocate with Florida Legal Services enlisted Design Corps' help.

Shipman explained how new housing for the migrant population had to be "durable to withstand hurricane forces, pleasant and sensitive to the needs of farm workers, flexible for adaptability and longevity, as well as produced in a way that could be duplicated on multiple sites throughout Florida's agricultural regions to address the widespread shortage." Design Corps worked with the area's growers, nonprofits, and the farm workers themselves to design a manufactured unit that would be cheap, sturdy, and meet the needs of this transitory community. The result: a light, airy living space with room for five people and an exterior porch that can double as a hurricane barrier.

The key to both projects was flexibility, based on a foundation of good design, that would allow the affected communities to grow over time. Perhaps the ultimate test of this principle will come with the redesign and rebuilding of New Orleans, other conference presenters pointed out. Through meetings that have brought together neighborhood organizations, residents and professionals, said Alan Lewis, interim director of the Tulane City Center, the process is already underway.

Speakers on other panels raised the same principle with regard to more permanent housing. "Good communities hold the capacity to change themselves as they sustain the overall character of the city," said Renee Chow, principal of Studio Urbis and a professor at the University of California, Berkeley. Chow cited San Francisco as a classic case of how good design has enabled a city to remain vibrant as its housing needs have changed. For example, load-bearing walls that are perpendicular to the street have allowed builders to transform Victorian residences into multi-level apartment buildings. Street-level storefronts have further given San Francisco neighborhoods the ability to adapt to changing populations and economic patterns.

Santa Cruz, CA, provides a more recent example of how communities can use adaptable structures left by previous generations, said Carol Berg, that city's Housing and Community Development Manager. Surrounded by a greenbelt on three sides and the ocean on the other, Santa Cruz has almost reached its built capacity, while the demand for housing continues to grow. One solution has been the "granny flat." Using the large lots characteristic of local homes, the city has promoted a program of affordable accessory dwelling units (ADUs), alongside established homes. By changing the city's regulatory structure, eliminating obstacles like parking requirements, and developing the city's extensive alley system, Berg said the hope is that continued population growth can be accommodated by better developing the empty space designed into the original city plan.

While considerations outside the realm of design have long concerned architects, the professional's ultimate responsibility is to good design, said Scarpa. While flexibility, environmental sustainability, and the use of new technologies can be used to challenge old ideas, he cautioned that the desire to recognize expanded concerns cannot be effectively realized without a foundation of good design.