Every group of people with a shared purpose—i.e., every community—is established with a view to some good; for human beings always act in order to obtain that which they think good. But though all communities aim at some particular and limited good, the CITY [polis]—which is a community of communities, the highest of all, embracing all the rest—aims at the highest good: the well-being of all its citizens…

--Aristotle

A city can only be [constructed] in the form of [neighborhoods]…. Each neighborhood must have its own center, periphery, and limit…. [and] must integrate most of life’s daily functions—dwelling, working, leisure, education, worship—within an area based upon THE COMFORT OF A WALKING PERSON…. Simplicity must be the goal of the urban plan, however complex the urban geography and topography. The city must be articulated into public and domestic spheres, civic architecture and vernacular buildings, squares and streets, IN THAT HIERARCHY; and urban blocks should be as numerous and small as their occupying uses permit…

--Leon Krier
I. Space is a Thing: an urban thing…
   a) Space and Anti-space

II. Elements of the City: What is Urban Form?
   a) City as environmental order, economic order, moral order, and formal / material order
   b) Urban formal order: a network of streets and blocks, with a mix of daily life activities within pedestrian proximity (120 - 200 acres)
   c) Urban spatial types: plaza, square / boulevard, avenue, street, alley
   d) Urban building types: foreground and background

III. Ten Characteristics of Good Towns and Neighborhoods

IV. The Transect and Transect-based zoning

V. Traditional Architecture and Urbanism as “The Original Green”
I. Space is a Thing: an Urban Thing
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Figure and (Back) Ground
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A Brief Introduction to Traditional Town Planning

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A Brief Introduction to Traditional Town Planning
The Notre Dame School of Architecture Graduate Urban Design Studio (copywrite ND 2008)
Plan Voisin (top) / The Radiant City (bottom): utopia as towers in a park (anti-spatial)

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Plan Voisin / Chicago Loop perimeter (anti-spatial)

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A Brief Introduction to Traditional Town Planning
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II. What is Urban Form?

*Urban formal order*: a network of streets and blocks, with a mix of daily life activities within pedestrian proximity (120 - 200 acres)

*Urban spatial types*: plaza, square / boulevard, avenue, street, alley

*Urban building types*: foreground buildings / background buildings
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The Public Realm: Civic Buildings, Religious Buildings, Monuments—foreground

Characteristics of traditional towns and city neighborhoods - Drawing courtesy of Leon Krier
The Private Realm: Residential Buildings, Commercial Buildings--background

Characteristics of traditional towns and city neighborhoods    Drawing courtesy of Leon Krier
Public Realm + Private Realm: = The City

Characteristics of traditional towns and city neighborhoods - Drawings courtesy of Leon Krier

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The MEASURE of good urbanism: the 1/4 mile radius (5-minute) walk

Characteristics of traditional towns and city neighborhoods - Drawing courtesy of Leon Krier

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The Neighborhood: Fundamental Unit of Urban Design

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The Neighborhood as Village

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The Neighborhood as Small Town

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The Neighborhood in the City

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Characteristics of traditional cities: a City is like a pizza / a post-1945 Suburb like a collection of ingredients

Drawing courtesy of Leon Krier

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Components of Sprawl I: mono-culture of housing

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Components of Sprawl II: mono-culture of shopping

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Components of Sprawl IV: civic building as “big box”

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Components of Sprawl V: auto-oriented / pedestrian-hostile infrastructure

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Three mono-functional zones: single-family houses, apartments, shopping (w/parking lot)

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Spatial characteristics of traditional cities: streets and squares - Drawing courtesy of Leon Krier

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Urban Spatial Types / The Plaza (clockwise from top left): Siena, Bruges, Todi, Pienza
Urban Spatial Types / The Square (clockwise from top left): Paris, London, Boston, New Orleans

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Urban Spatial Types: The Boulevard (clockwise from top left: aerial view, median, road way, sidewalk), Boston
Urban Spatial Types / The Boulevard (sidewalk, road way, median, monument), Cooperstown

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Urban Spatial Types: The Avenue (clockwise from top left: Paris; Chicago; Skaneateles, NY; Northampton, MA)

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Urban Spatial Types / The Street (clockwise from upper left: Bruges, Charleston, Nantucket, Chicago)

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Urban Spatial Types: The Alley / Lane (clockwise from top left: London, Boston, Chicago)

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The Public Realm: Civic Buildings, Religious Buildings, Monuments—foreground

Urban Foreground Buildings (n.b. the de facto notion of building hierarchies) - Drawing by Leon Krier

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Foreground Buildings (American): clockwise from top left, market hall, church, post office, monument
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Urban Building Types / Foreground Buildings – churches terminating axial vista
Urban Building Types / Foreground Buildings fronting squares

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Urban Building Types / Foreground Buildings (clockwise from lower left: state house, school, ballpark, library)

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The Private Realm: Residential Buildings, Commercial Buildings--background

Urban Background Buildings - Drawing courtesy of Leon Krier

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Background Buildings: mixed-use (retail below, apartments or offices above)

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Background Buildings: mixed-use (retail below, apartments or offices above)
Background Buildings: single family houses

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Background Buildings: multi-family housing
Ten Characteristics of Good Towns and Neighborhoods

Skaneateles, NY / Lincoln Square, Chicago
1) A good town / neighborhood: has a discernible center

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2) A good town / neighborhood: may have a more-or-less discernible edge
3) A good town / neighborhood: is pedestrian friendly

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4) A good town / neighborhood: has a variety of dwelling types -- single family house (left), 2-flat (right)
4) A good town / neighborhood: has a variety of dwelling types -- row-houses (left), 6-unit apartments (center), 12-flat (right)

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4) A good town / neighborhood: has a variety of dwelling types (carriage houses)

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4) A good town: has a variety of dwelling types (apartments above stores)
5) A good town / neighborhood: has stores and offices located at and/or near its center

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6) A good town / neighborhood: has an elementary school and parks / playgrounds to which most children can walk

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7) A good town / neighborhood: has small blocks with a network of through streets

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8) A good town / neighborhood: places its buildings close to the street

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9) A good town / neighborhood: utilizes its streets for parking

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10) A good town / neighborhood: reserves prominent sites for civic buildings and community monuments

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IV. The Transect and Transect-based zoning
The Rural-to-Urban Transect is a diagram of human habitat describing the relationship of the rural environment to traditional urban environments. The Rural Transect proper (zones T1 and T2) designates areas generally not subject to human settlements larger than the family, and differentiates between natural landscapes (both raw and preserved) and cultivated landscapes. The Urban Transect refers in turn to that range of human habitats that support human flourishing, within which human settlements are part of a sustainable eco-system that includes both natural and cultivated landscapes. This range of human habitats, depicted as “Transect-zones,” progresses from less dense human settlements (T-3) to more dense human settlements (T-6); but each urban Transect-zone denotes a walkable and mixed-use human environment wherein within each Urban T-zone many if not most of the necessities and activities of daily life are within a five-to-ten-minute walk for persons of all ages and economic classes.

Definition of the Urban Transect

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Transect-based zoning: The Transect, as a system of classification deploying the conceptual range rural-to-urban, can be employed to arrange in useful order the typical elements of urbanism, within which continuum every urban element finds its place. The continuum of the Transect, when subdivided, forms the primary basis of the following zoning categories, listed from most rural / least dense to most urban / most dense: Natural (T1), Rural (T2), Sub-Urban (T3), General Urban (T4), Urban Center (T5), and Urban Core (T6). These categories zone primarily for density and building type rather than for use, because it is a premise of Transect-based zoning that a mix of uses is desirable and that uses change over time. All Urban Transect zones therefore allow broadly for adjacent residential, commercial, and light industrial uses, though some of these uses are designated as primary and some secondary to particular building types.
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The Transect: Natural

- Natural (T-1)
  - least dense
  - least urban
  - forest preserves / farms
  - urban parks

- Rural (T-2)
  - most dense
  - most urban
  - Manhattan / Paris / Rome

- Sub-Urban (T-3)
- General (T-4)
- Center (T-5)
- Core (T-6)
- Special District (D)
<table>
<thead>
<tr>
<th>Natural (T-1)</th>
<th>Rural (T-2)</th>
<th>Sub-Urban (T-3)</th>
<th>General (T-4)</th>
<th>Center (T-5)</th>
<th>Core (T-6)</th>
<th>Special District (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>least dense</td>
<td>least urban</td>
<td>forest preserves / farms</td>
<td>urban parks</td>
<td></td>
<td>Manhattan / Paris / Rome</td>
<td></td>
</tr>
</tbody>
</table>

**The Transect: Rural**

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<table>
<thead>
<tr>
<th>Transect Zone</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural (T-1)</td>
<td>least dense</td>
</tr>
<tr>
<td>Rural (T-2)</td>
<td>least urban</td>
</tr>
<tr>
<td>Sub-Urban (T-3)</td>
<td>forest preserves / farms</td>
</tr>
<tr>
<td>General (T-4)</td>
<td>urban parks</td>
</tr>
<tr>
<td>Center (T-5)</td>
<td>most dense</td>
</tr>
<tr>
<td>Core (T-6)</td>
<td>most urban</td>
</tr>
<tr>
<td>Special District (D)</td>
<td>Manhattan / Paris / Rome</td>
</tr>
</tbody>
</table>

**The Transect: Sub-Urban**

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The Transect: General Urban

- Natural (T-1)
- Rural (T-2)
- Sub-Urban (T-3)
- General (T-4)
- Center (T-5)
- Core (T-6)
- Special District (D)

- least dense
- least urban
- forest preserves / farms
- urban parks

- most dense
- most urban
- Manhattan / Paris / Rome
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**The Transect: Urban Core**

<table>
<thead>
<tr>
<th>Natural (T-1)</th>
<th>Rural (T-2)</th>
<th>Sub-Urban (T-3)</th>
<th>General (T-4)</th>
<th>Center (T-5)</th>
<th>Core (T-6)</th>
<th>Special District (D)</th>
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<td>least dense</td>
<td>least urban</td>
<td>most dense</td>
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<td>Manhattan / Paris / Rome</td>
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<td>forest preserves / farms</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**The Transect: Urban Core**

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The Transect: T-6 / Urban Core (clockwise from upper left: Rome; Paris; London; Boston)

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Natural (T-1)  Rural (T-2)  Sub-Urban (T-3)  General (T-4)  Center (T-5)  Core (T-6)  Special District (D)

least dense
least urban
forest preserves / farms
urban parks

most dense
most urban
Manhattan / Paris / Rome

The Transect: T-2 adjacent to T-5 in St. Andrews, Scotland
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The Transect: T-2 adjacent to T-6 in Manhattan

Natural (T-1) Rural (T-2) Sub-Urban (T-3) General (T-4) Center (T-5) Core (T-6) Special District (D)

least dense least urban forest preserves / farms urban parks

most dense most urban Manhattan / Paris / Rome

New York
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Regulating Plan: Transect-based, works w/ City TND Ordinance, supplements Greensboro, NC Historic District Design Guidelines
### Transect-based Coding: Urban Center (T5)

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Sustainable Northampton…

**Emphasizes:**

- Regional sensitivity*
- Use of renewable and efficient energy
- Variety of housing types: ownership, rental units, affordability
- Capital improvements in accordance with Sustainable Northampton
- Rural and urban land* / variety of densities and uses* / good public transit / energy efficiency / conserving a variety of ag lands and natural landscape* (The Rural-to-Urban Transect)

**Proposes:**

- Concentrating (new?) traditional development in existing historic centers
- Low density development in watersheds, w / transfer of development rights
- Expansion of land for commercial development [mixed-use & form-based?] 
- Preservation of farmland and natural landscape
V. Traditional Architecture & Urbanism as “The Original Green”

Traditional urbanism is green insofar as it is:

Nourishing  Accessible  Serviceable  Secure
Traditional building is green insofar as it is:

- Loveable (not?)
- Durable
- Flexible
- Frugal
Genealogy of the House

30 A.D.

1030 A.D.

1830 A.D.

1930 A.D.

2030 A.D.

Temporary Refusal of the Archetype

Drawings courtesy of Leon Krier

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