introduction
reality vs. perception

arch 4843/8843
spring
01.10.13
### KENYA to LONDON

<table>
<thead>
<tr>
<th>Distance</th>
<th>Carbon Footprint</th>
</tr>
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<tbody>
<tr>
<td>220 miles</td>
<td>1 CO₂</td>
</tr>
<tr>
<td>220 miles</td>
<td></td>
</tr>
<tr>
<td>220 miles</td>
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<tr>
<td>220 miles</td>
<td></td>
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<tr>
<td>220 miles</td>
<td></td>
</tr>
</tbody>
</table>

### HOLLAND to LONDON

<table>
<thead>
<tr>
<th>Distance</th>
<th>Carbon Footprint</th>
</tr>
</thead>
<tbody>
<tr>
<td>220 miles</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Carbon Footprint</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 CO₂</td>
</tr>
<tr>
<td>2 CO₂</td>
</tr>
<tr>
<td>3 CO₂</td>
</tr>
<tr>
<td>4 CO₂</td>
</tr>
<tr>
<td>5 CO₂</td>
</tr>
<tr>
<td>6 CO₂</td>
</tr>
</tbody>
</table>
.......but....... what kind of city do we want to be?

- enforce our codes. we need more police.
- more parks... we need greenspace!
- we need to be more 'new urban'
- no more big boxes, please.
- don't put that bus on my street.
- traffic is a problem.
- how do we get a whole foods?
Challenge
How do we create a comprehensive plan without knowing what the future holds?

EVERYONE HAS DIFFERENT OPINIONS ABOUT WHAT SHOULD HAPPEN

IT IS IMPOSSIBLE TO PREDICT WHAT THE MARKET WILL DO
2500 years of planning

public + private
TWIN FRAME HOUSES, COR. 33rd ST. & LEXINGTON AV.

1865
health, safety, + welfare

obligation
How the Other Half Lives
Studies Among the Tenements of New York (1890)
Jacob Riis
The 1901 Tenement House Act was the most far-reaching of all the tenement reform bills - required improved light, ventilation, and toilet facilities.
New and Healthy

Old and Unhealthy
enabling legislation

models
APPENDIX B

CITY OF NEW YORK

BOARD OF ESTIMATE AND APPORTIONMENT

BUILDING ZONE RESOLUTION

Including amendments to March 23, 1917.

A Resolution regulating and limiting the height and bulk of buildings hereafter erected and regulating and determining the area of yards, courts and other open spaces, and regulating and restricting the location of trades and industries and the location of buildings designed for specified uses and establishing the boundaries of districts for the said purposes.

Be it resolved by the Board of Estimate and Apportionment of the City of New York:

ARTICLE I—Definitions

§ 1. Definitions.

Certain words in this resolution are defined for the purposes thereof as follows:

(a) Words used in the present tense include the future; the singular number includes the plural and the plural the singular; the word "lot" includes the word "plot"; the word "building" includes the word "structure."

(b) The "street line" is the dividing line between the street and the lot.
USE DISTRICT MAP DESIGNATIONS

- Within street
  - Residence District
  - Business District
  - Unrestricted District

- On side of street
  - Residence District
  - Business District
  - Unrestricted District
  - Undetermined Area

- Not within or on side of street
  - Residence District
  - Business District
  - Unrestricted District
  - Undetermined Area

USE DISTRICT MAP DESIGNATION RULES

(a) The use district designated within a street shall include the areas adjoining the portion of the street so designated on each side of such street, between such street and lines parallel to and 100 feet distant measured at right angles from each side of such street and limited at either end by lines at right angles to such street at the termination of such designation, except that where there is a cross street on either side at such termination, such limiting line shall follow the center line of such cross street.

(b) The use district designated on the side of a railroad shall include the area on each side of the right of way of such railroad adjoining the portion so designated between each side of such right of way and lines parallel thereto and 100 feet distant therefrom, measured at right angles thereto, and limited at either end by lines at right angles to such side of such right of way at the termination of such designation, except that where there is a cross street at such termination the limiting line shall follow the center line of such street.

(c) Where a single use district designation is shown within the intersection of two or more streets the district so designated shall include the areas between the sides of such intersecting streets and lines parallel to and 100 feet distant from the sides of each of any two intersecting streets, measured at right angles thereto.
A STANDARD
STATE ZONING ENABLING ACT
UNDER WHICH MUNICIPALITIES MAY ADOPT ZONING
REGULATIONS

BY THE
ADVISORY COMMITTEE ON ZONING
APPOINTED BY SECRETARY HOOVER

DEPARTMENT OF COMMERCE
HERBERT HOOVER, SECRETARY

A STANDARD
CITY PLANNING ENABLING ACT

BY THE ADVISORY COMMITTEE ON CITY PLANNING AND ZONING
APPOINTED BY SECRETARY HOOVER

PRICE 5 CENTS

SOLD ONLY BY THE SUPERINTENDENT OF DOCUMENTS,
GOVERNMENT PRINTING OFFICE, WASHINGTON, D. C.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1932
simple ideas are drowning in the accumulated baggage of 200 years of city planning
the impact of early regulations
U.S. Supreme Court

Village of Euclid, Ohio v. Ambler Realty Co., 272 U.S. 365 (1926)

Village of Euclid, Ohio, et al.

v.

Ambler Realty Co.

No. 31.

Reargued Oct. 12, 1926.
Decided Nov. 22, 1926.

[272 U.S. 365, 367] Mr. James Metzenbaum, of Cleveland, Ohio, for appellants.
[272 U.S. 365, 379]
A nuisance may be merely a right thing in the wrong place, like a pig in the parlor instead of the barnyard.
On November 13, 1922, an ordinance was adopted by the village council, establishing a comprehensive zoning plan for regulating and restricting the location of trades, [272 U.S. 365, 380] industries, apartment houses, two-family houses, single family houses, etc.
the meaning of the decision
And in this there is no inconsistency, for, while the meaning of constitutional guaranties never varies, the scope of their application must expand or contract to meet the new and different conditions which are constantly coming within the field of their operation. In a changing world it is impossible that it should be otherwise.
It is not meant by this, however, to exclude the possibility of cases where the general public interest would so far outweigh the interest of the municipality that the municipality would not be allowed to stand in the way.
a comprehensive plan is really a framework
We constantly ask ourselves what use a project should be. When I ask people what this should be, invariably I get answers like –

‘a Whole Foods, an organic farmers’ market, a mixed-use project with residential above and retail on the ground floor,’ etc.

What is really the question we should be asking ourselves in these situations?
3900 Feet – ¾ Mile

11 New York City Blocks!
How we divide up our land is more important than what we do with it.

The size, shape, orientation, legal process of the subdivision

Zoning, use changes, bulk limitations
planning is really measuring
Camp Creek Marketplace

Midtown – Tech Square
Camp Creek Marketplace
1992 Subdivision Ordinance

(a) To regulate the development of new housing throughout the neighborhoods in the city for persons of all income groups.

(d) To promote subdivision layout and housing design so as to promote privacy for residents.

(k) To assure the provision of open space, landscaped areas and natural areas on residential building lots and to encourage the provision of both public and private common open space.
Section 15-4003  Blocks.

(a) Length, width and shapes of blocks. The lengths, widths and shapes of blocks shall be determined with due regard to:

(1) Provision of adequate building sites suitable to the special needs of the type of use contemplated.

(2) Zoning requirements as to lot sizes and dimensions.

(3) Needs for convenient access, circulation, control and safety of street traffic.

(4) Limitations and opportunities of topography.

(b) Easements. Easements, not less than 10 feet wide, may be required where deemed essential to provide pedestrian circulation or access to schools, playgrounds, shopping centers, transportation, and other community facilities.

(c) Trees. When feasible, all trees of major growth in the subdivision will be preserved. All trees shall be at a minimum distance from the center line of a street as indicated below:

<table>
<thead>
<tr>
<th>Type of street</th>
<th>Minimum distance from street center line in feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>55 - 80</td>
</tr>
<tr>
<td>Collector</td>
<td>40 - 45</td>
</tr>
<tr>
<td>Local</td>
<td>35</td>
</tr>
</tbody>
</table>

(Code 1965, Sec. 30-46)

Cross Reference: Trees and shrubbery generally. Section 10-6001 et seq.
Sec. 15-08.004. - Blocks

The lengths, widths and shapes of blocks shall be designed so as to meet each of the following requirements:

a) Provide for building sites with sufficient buildable area to build a house.

b) Meet zoning requirements as to lot sizes and dimensions.

c) Assure access, circulation, and safety of pedestrian and vehicular traffic.
streets
(2) **STREETS:**

A way for vehicular traffic, whether designated as a street, highway, throughway, road, avenue, boulevard, lane, place or however otherwise designated:

a. **Major streets** and highways are those which are used primarily for fast or heavy traffic.

b. **Collector streets** are those which carry traffic from local or neighborhood streets to the major system of major streets and highways, including the principal entrance streets of a residential development and streets for circulation within such a development.

c. **Local streets** are those which are used primarily for access to the abutting properties.

d. **Marginal access streets** are local streets which are parallel to and adjacent to major streets and highways, and which provide access to abutting properties and protection from through traffic.

e. **Service drives** are used primarily for vehicular service access to the back or the side of properties otherwise abutting on a street.
Sec. 15-08.002. - Streets.

(a) Streets shall be designed as follows:

(1) The arrangement, design, extent, width, grade and location of all streets shall be considered in relation to existing and planned streets, to topographical conditions, to public convenience and safety, and in their appropriate relation to the proposed uses of the land to be served by such streets. This subsection is not intended to prohibit culs-de-sac which otherwise would meet the requirements of this part.

(4) Completed cul-de-sac streets shall not be permitted to be extended.

(5) All new streets shall be located and designed so as to preserve mature trees when feasible, consistent with all other street design standards set forth in this part.
<table>
<thead>
<tr>
<th>Classification</th>
<th>Example</th>
<th>Description</th>
<th>Design Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Arterial</em></td>
<td><img src="image" alt="Arterial Example" /></td>
<td>Provides the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control.</td>
<td>30-60 mph</td>
</tr>
<tr>
<td><em>Collector</em></td>
<td><img src="image" alt="Collector Example" /></td>
<td>Provides a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.</td>
<td>30 mph or higher</td>
</tr>
<tr>
<td><em>Local</em></td>
<td><img src="image" alt="Local Example" /></td>
<td>Consists of all roads not defined as arterials or collectors; primarily provides access to land with little or no through-movement.</td>
<td>20-30 mph</td>
</tr>
</tbody>
</table>

*Figure 7-3: Urban Roadway Definitions Under the Functional Classification System (Adapted from AASHTO, 2001)*
Local streets

Local streets shall be so laid out that their use by through traffic will be discouraged.
flexibility
Local streets

Local streets shall be so laid out that their use by through traffic will be discouraged.

Alleys

Alleys shall not be permitted.
existing mixed-use
land is subdivided before uses are known
uses that fit within the current vision
uses are tested to insure they work
the future of regulations
01. Master Plan

02. Standards – Public Works

03. Standards – Building

04. Development Controls
measuring things

perception vs reality
To others it may be a subject of merriment that the Commissioners have provided space for a greater population than is collected at any spot on this side of China. ... It is not improbable that considerable numbers may be collected at Harlem before the high hills to the southward of it shall be built upon as a city; and it is improbable that (for centuries to come) the grounds north of Harlem Flat will be covered with houses.
My office is 15 minutes away.

HOW DO WE MEASURE THINGS?

My office is 5 blocks from here.
Merriam-Webster:

1 - a period of time; also: its duration

2 - a limited extent in one, two or three dimensions
Barcelona: 470 Intersections
Paris:
205 Intersections
Philadelphia: 360 Intersections
We constantly ask ourselves what use a project should be. When I ask people what this should be, invariably I get answers like –

‘a Whole Foods, an organic farmers’ market, a mixed-use project with residential above and retail on the ground floor,’ etc.

What is really the question we should be asking ourselves in these situations?
11 New York City Blocks!

3900 feet – \( \frac{3}{4} \) Mile

Block Dimensions: Site Scale
24 intersections
23,760 lf of streets
8 intersections
13,200 lf of streets
Walkability in terms of Distance

Time required to walk around the block @ 2mph

1000 ft block
4000 ft = 22.7 min

500 ft block
2000 ft = 11.4 min

250 ft block
1000 ft = 5.7 min
Walkability in terms of **Route Choice**

1000 ft block
- 2 Routes

500 ft block
- 1 Route

250 ft block
- 15 Routes
Walkability in terms of **Corners**

- **1000 ft block**: 2 Corners
- **500 ft block**: 3 Corners
- **250 ft block**: 6 Corners
Walkability in terms of Destinations

1000 ft block
2 Corners * 4
8 Destinations

500 ft block
3 Corners * 4
12 Destinations

250 ft block
6 Corners * 4
24 Destinations

15 Potential Corners * 4
60 Potential Destinations
small choices about a city’s physical environment have big impacts on our lives
syntax

reading the city
The red dog jumped over the fence.
density

perception vs reality
Density: 41 people per acre

Atlanta:
6 people per acre

New York City:
41 people per acre

If we take New York’s density and apply to Atlanta…

All of Atlanta’s population can fit into 14.6% of Atlanta’s Total Area

Density: 41 people per acre
“Core 10” Existing Density

1,938,221 Total Acres
4,029,400 Total Population
(in 2007)

Population Density 2.08
“Core 10” Density Study

1,938,221 Total Acres
4,029,400 Total Population (in 2007)

City of Atlanta:
85000 acres @ density 20 = 1,700,000 Population

Other areas:
465,880 acres @ density 5 = 2,329,400 Population

1,387,341 Acres of Forest
20 PEOPLE PER ACRE
2 PEOPLE PER ACRE
20 PEOPLE PER ACRE
11’ SEWER/STREET PER PERSON

2 PEOPLE PER ACRE
84’ SEWER/STREET PER PERSON
connectivity

past and future
Transit Connectivity: Persons Carried by Transit … 1958-2005

1958
49% of all work trips

2005
14% of all work trips

PROJECTED FOR 1980
INCREASE TO 54%
DECREASE TO 46.5%

WHAT NEXT?
1961 MARTA PROPOSAL

A VISION FOR THE FUTURE 50 YEARS AGO THAT WE ARE STILL TRYING TO REALIZE
Pedestrian Connectivity – Study Area

• Existing units within ¼ mile path: 259
• Total residents*: 671
• Existing units within ½ mile path: 1255
• Total residents*: 3250

*Average US Household 2.59
Existing Density: **Share of Land Area**

- **open right-of-way**: 12.8 acres; 1%
- **institutional**: 53.1 acres; 4%
- **neighborhood parks**: 21.3 acres; 1%
- **golf course**: 85.4 acres; 7%
- **beltline**: 47.8 acres; 4%
Pedestrian Connectivity: Ansley Mall Node

Within ¼ Mile Path
• Existing Units: 5
• Existing Residents: 13

Within ½ Mile Path
• Existing Units: 410
• Existing Residents: 1062
Pedestrian Connectivity: Ansley Mall Node

Within ¼ Mile Path
- Existing Units: 5
- Additional Units: 125
- Total Units: 130
- Existing Residents: 13
- Additional Residents: 324
- Total Residents: 337

Within ½ Mile Path
- Existing Units: 410
- Additional Units: 178
- Total Units: 588
- Existing Residents: 1062
- Additional Residents: 461
- Total Residents: 1523

Increased Connectivity
No New Development
Pedestrian Connectivity: Ansley Mall Node

Within ¼ Mile Path
- Existing Units: 5
- Additional Units: 125
- Total Units: 130
- Existing Residents*: 13
- Additional Residents: 324
- Total Residents: 337

Within ½ Mile Path
- Existing Units: 410
- Additional Units: 178
- Total Units: 588
- Existing Residents*: 1062
- Additional Residents: 461
- Total Residents: 1523

Increased Connectivity
Potential Redevelopment
It matters how we measure distance.
Radial and Network Estimates

City of Atlanta Estimated Population Served by Parks

<table>
<thead>
<tr>
<th>Distance From Park</th>
<th>Percent of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 mile</td>
<td>Radial = 43.7%</td>
</tr>
<tr>
<td></td>
<td>Network = 20.9%</td>
</tr>
<tr>
<td>1/2 mile</td>
<td>Radial = 78.7%</td>
</tr>
<tr>
<td></td>
<td>Network = 50.8%</td>
</tr>
</tbody>
</table>

¼ MILE: Radial = 43.7%
Network = 20.9%

½ MILE: Radial = 78.7%
Network = 50.8%
Finding Service Gaps

Radial

Network