Sprawl: A Compact History

CEP Santiago
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The View from the Plane

Paris, Southwest Suburbs, late 1950s

Toronto, 1972
4 Major Complaints about Sprawl:
1. Economically inefficient
2. Socially inequitable
3. Environmentally degrading
4. Aesthetically Ugly
Sprawl and Traffic

Kansas City

Tokyo
I. History of Sprawl
Sprawl is:
- Recent
- American (Canadian, Australian)
- Based on Automobile

Suburban Boston Burlington Mall Area Mass. Rte. 128 & US 3 nw of Boston
Problem: lack of agreed upon definition

Minimum Definition for Purposes of history

- Lower Density
- No Masterplan

Conclusion: Sprawl as old as cities
Ancient Suburban Sprawl:
Herculaneum
Classical exurban Sprawl:
Hadrian’s Villa at Tivoli
Outside Rome
Nineteenth Century Suburban Sprawl  London, Camberwell
Gentrification and Sprawl  Paris: Boulevard St. Michel
The Interwar Years: London Built Up Area 1914 and 1939 from 1944 Plan of London
Middle Class Suburban Sprawl in London - Merton Park
Post War Europe

Postwar Social Housing in Bobigny, Suburban Paris

Home of the average Parisian: Senart
Private Automobile Ownership in the United States and Europe
redrawn from Gerondeau, Transit in Europe
Modes of Transit in Europe redrawn from Gerondeau, Transit in Europe
Postwar US

Hoffman Estates outside Chicago, Illinois

Naperville
Changes in Density for selected Urbanized Areas, data from Wendell Cox, demographia.com

Air view approaching LAX
Convergence

From Wendell Cox, demographia.com
Some Urban densities today

<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
<th>Per Sq. Mile</th>
<th>Per Square Kilometer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Dhaka, Bangladesh</td>
<td>84,300</td>
<td>32,000</td>
<td></td>
</tr>
<tr>
<td>2 Mumbai, India</td>
<td>76,700</td>
<td>29,500</td>
<td></td>
</tr>
<tr>
<td>3 Hong Kong, China</td>
<td>76,200</td>
<td>29,300</td>
<td></td>
</tr>
<tr>
<td>22 Medellin, Columbia</td>
<td>54,000</td>
<td>20,800</td>
<td></td>
</tr>
<tr>
<td>23 Kano, Nigeria</td>
<td>50,000</td>
<td>19,200</td>
<td></td>
</tr>
<tr>
<td>192 Shenzen, China</td>
<td>22,000</td>
<td>8,500</td>
<td></td>
</tr>
<tr>
<td>196 Santiago, Chile</td>
<td>21,700</td>
<td>8,300</td>
<td></td>
</tr>
<tr>
<td>366 Seville, Spain</td>
<td>14,400</td>
<td>5,500</td>
<td></td>
</tr>
<tr>
<td>394 London, UK</td>
<td>13,200</td>
<td>5,000</td>
<td></td>
</tr>
<tr>
<td>426 Shanghai, China</td>
<td>11,800</td>
<td>4,500</td>
<td></td>
</tr>
<tr>
<td>504 Beijing, China</td>
<td>9,600</td>
<td>3,700</td>
<td></td>
</tr>
<tr>
<td>554 Los Angeles, CA</td>
<td>7,100</td>
<td>2,700</td>
<td></td>
</tr>
<tr>
<td>571 Hamburg, Germany</td>
<td>6,000</td>
<td>2,300</td>
<td></td>
</tr>
<tr>
<td>592 Copenhagen, Denmark</td>
<td>4,800</td>
<td>1,800</td>
<td></td>
</tr>
</tbody>
</table>

Source: Wendell Cox, demographia.com
Growth of Santiago
1890-2002
Cartography
by Ivan Poduje

From Alexander Galetovic, Editor
Santiago Donde
Estamos y hacia done vamos
Suburbs

Phoenix View at northwest edge of built up area

Munich, approach into Franz Josef Strauss Airport
The McMansion in Exurbia: Luray, Virginia

Near Grasse on French Riviera

Napa Valley outside St. Helena, CA north Of San Francisco
Global Convergence: The Single Family House

The single-family house: Dresden Bannewitz

The single-family house: southeast periphery Of Melbourne
The single-family house
For a New Russian family
Outside Moscow

The single-family house in Beijing
Ad in English language magazine
Boston or Bangkok?
II. History of Complaints about Sprawl
1. The First Generation of Complaints about Sprawl

Patrick Abercrombie

Thomas Sharp, Town and Country-Side, 1932
2. The Second Generation
Postwar decades

Influential American Blast against sprawl: William H Whyte, Editor, The Exploding Metropolis 1958
3 Environmental

4 Aesthetic
3. The Third Generation: Recent decades
Climate Change

Millennial Northern Hemisphere (NH) temperature reconstruction (blue – tree rings, corals, ice cores, historical records) and instrumental data (red) from AD 1000 to 1999. A smoother version (black), and two standard error limits (grey) are shown. *Source: IPCC Third Assessment Report*
# Table 3: Total Annual Greenhouse Gas Emissions by Dwelling Type

<table>
<thead>
<tr>
<th>Building type</th>
<th>Annual Greenhouse Emissions per dwelling (tonnes CO₂/dwelling/year)</th>
<th>Annual Greenhouse Emissions per person (tonnes CO₂/person/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-Rise</td>
<td>10.4</td>
<td>5.4</td>
</tr>
<tr>
<td>Mid-Rise</td>
<td>7.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Low-Rise</td>
<td>6.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Townhouse + Villas</td>
<td>5.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Detached</td>
<td>9.0</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>8.0</strong></td>
<td><strong>4.1</strong></td>
</tr>
</tbody>
</table>

Energy News, 2005, data from New South Wales, Australia
III. Remedies for Sprawl
The Great English Reform Planning Model

Welwyn Garden City from Punch, 1920

Ebenezer Howard, Garden City 1898
The Great British anti-sprawl Crusade:
Redrawn from Patrick Abercrombie
Greater London Plan, 1944
The current poster child for anti-sprawl: Portland, Oregon 2040 Concept Plan
Sprawl successfully stopped: Soviet St. Petersburg
The British System Applied: Hong Kong

Tseung Kwan O

HK Urbanized Area Density:
73,000 people/sq m
28,000/ sq. kilo

Average apartment in Hong Kong

Price:
USD $300-500,000
Size:
530 sq. ft
49 sq. meters
The price of anti-sprawl: Nantucket Island, Massachusetts
Housing Affordability- some highly affordable and very Unaffordable large urban areas

<table>
<thead>
<tr>
<th>Least affordable</th>
<th>Most affordable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 LA-Orange Co. CA</td>
<td>4 Indianapolis</td>
</tr>
<tr>
<td>2 San Diego, CA</td>
<td>9 Winnipeg</td>
</tr>
<tr>
<td>3 Honolulu, HI</td>
<td>15 Pittsburgh</td>
</tr>
<tr>
<td>4 San Francisco</td>
<td>21 Dallas-Fort Worth</td>
</tr>
<tr>
<td>5 Ventura Co., CA</td>
<td>26 Cleveland</td>
</tr>
<tr>
<td>6 Stockton, CA</td>
<td>31 Atlanta</td>
</tr>
<tr>
<td>7 Sydney, NSW</td>
<td>31 Columbus OH</td>
</tr>
<tr>
<td>8 San Jose, CA</td>
<td>31 Houston</td>
</tr>
<tr>
<td>9 London</td>
<td>31 Ottawa</td>
</tr>
</tbody>
</table>

Ratio of median income to median house price, data for 3rd quarter 2006
From Wendell Cox, demographia.com, 3rd annual int’l affordability survey
Conclusions

Sprawl is:
1. Bad Diagnostic Tool
2. Distracts us from real urban problems
3. Obscures our urban vision