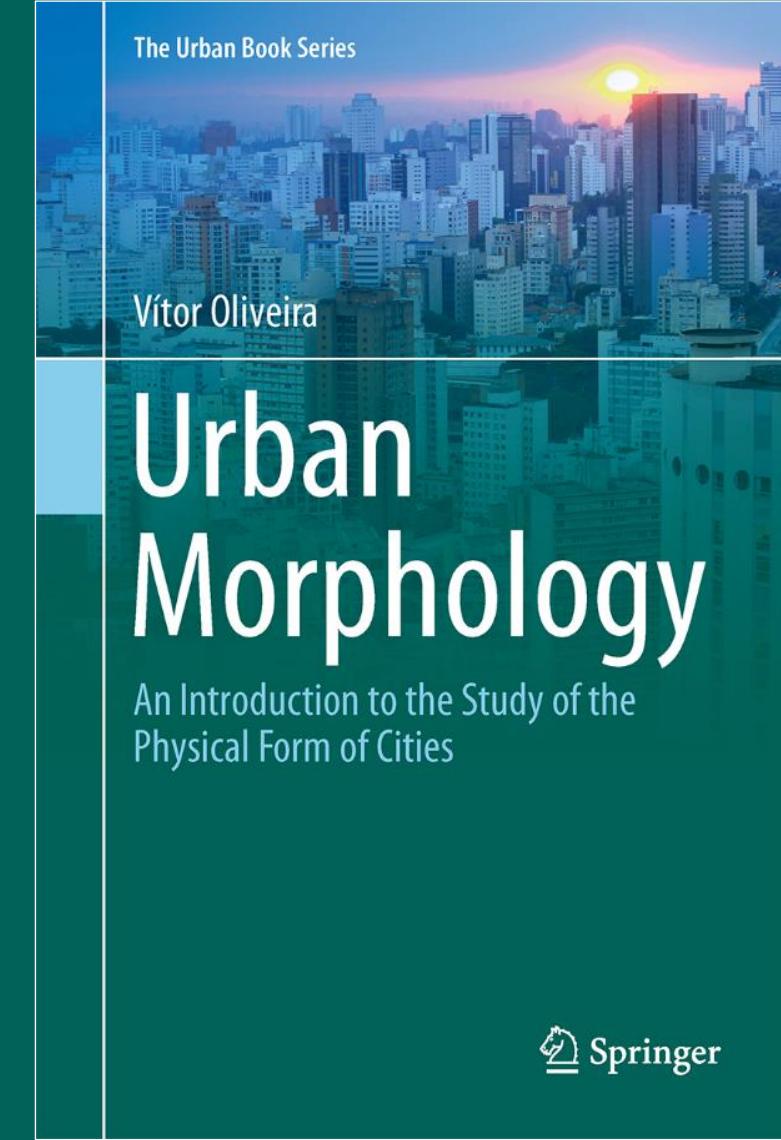


VITOR OLIVEIRA



URBAN MORPHOLOGY
MORFOLOGIA URBANA

AN INTRODUCTION TO THE STUDY OF THE PHYSICAL FORM OF CITIES
UMA INTRODUÇÃO AO ESTUDO DA FORMA FÍSICA DAS CIDADES



<http://www.springer.com/gp/book/9783319320816>

CONTEMPORARY CITIES

CIDADES CONTEMPORÂNEAS

1. Contemporary cities
2. Tokyo
3. New York
4. Istanbul

CONTEMPORARY CITIES (1950-2020)
CIDADES CONTEMPORÂNEAS (1950-2020)

Urbanisation, 1950

Search cities

GLOBAL CITY POPULATIONS*

70.4%
Rural

17.7%
Other urban
Fewer than 300,000

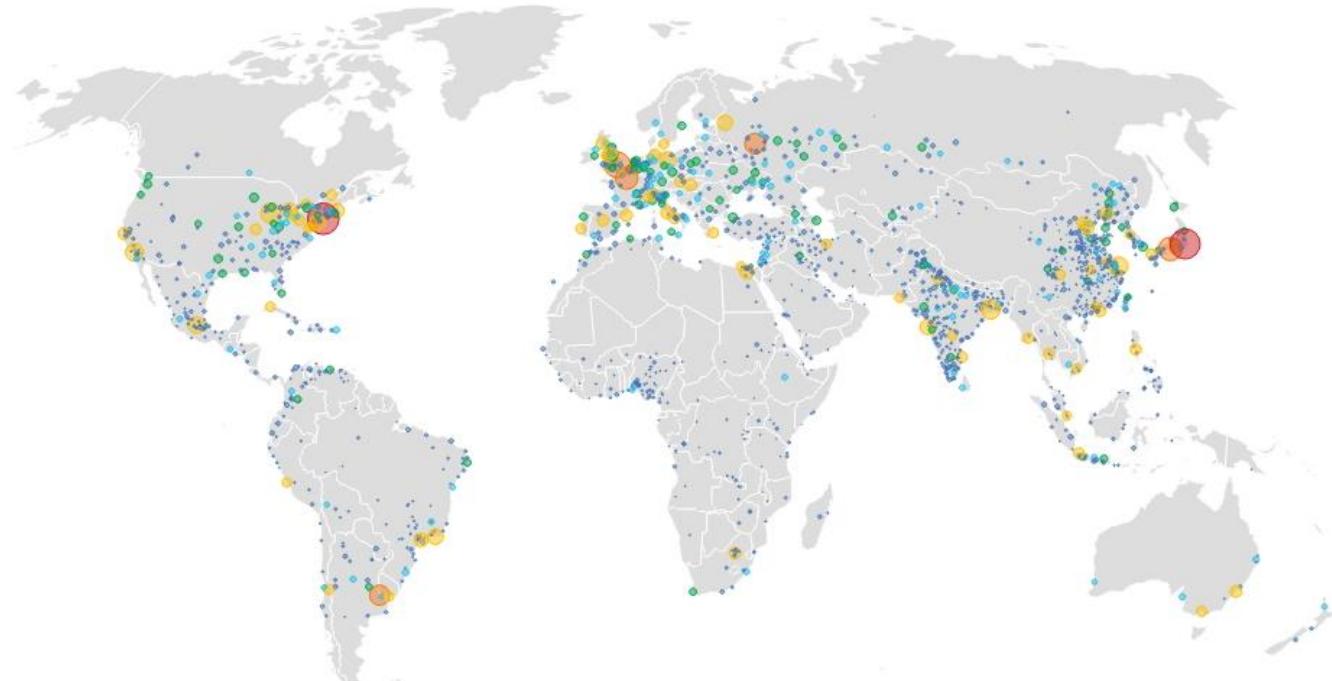
2.0%
Smallest cities
300,000 to 500,000

2.6%
Small cities
500,000 to 1m

5.1%
Medium cities
1m to 5m

1.3%
Large cities
5m to 10m

0.9%
Megacities
10m or more



Source: UN

1960

1970

1980

1990

2000

2010

2020

2030

*Dataset comprises urban agglomerations with 300,000 inhabitants or more in 2014.
Data are for countries existing in 2014, mapped on modern borders. Projections from 2014.

Source: The Economist

In 1950, 70% of the world population was rural.

18% of the population lived in cities with less than 300.000 inhabitants.

There were only 2 megacities (more than 10 million inhabitants): New York (12 M) and Tokyo (11 M).

Em 1950, 70% da população mundial era rural.

18% da população mundial vivia em cidades com menos de 300.000 habitantes.

Havia apenas duas megacidades (mais de 10 milhões de habitantes): Nova Iorque (12 M) e Tóquio (11 M).



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25 YEARS

Times Square, New York, 1953 (Source: Bettmann. Gettyimages)

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The Asahi Shimbun

25^{YEARS}

Shinjuku, Tokyo, 1959 (Source: The Asahi Shimbun. Gettyimages)

1128395535

Urbanisation, 1960

Search cities

GLOBAL CITY POPULATIONS*

66.3%
Rural

19.2%
Other urban
Fewer than 300,000

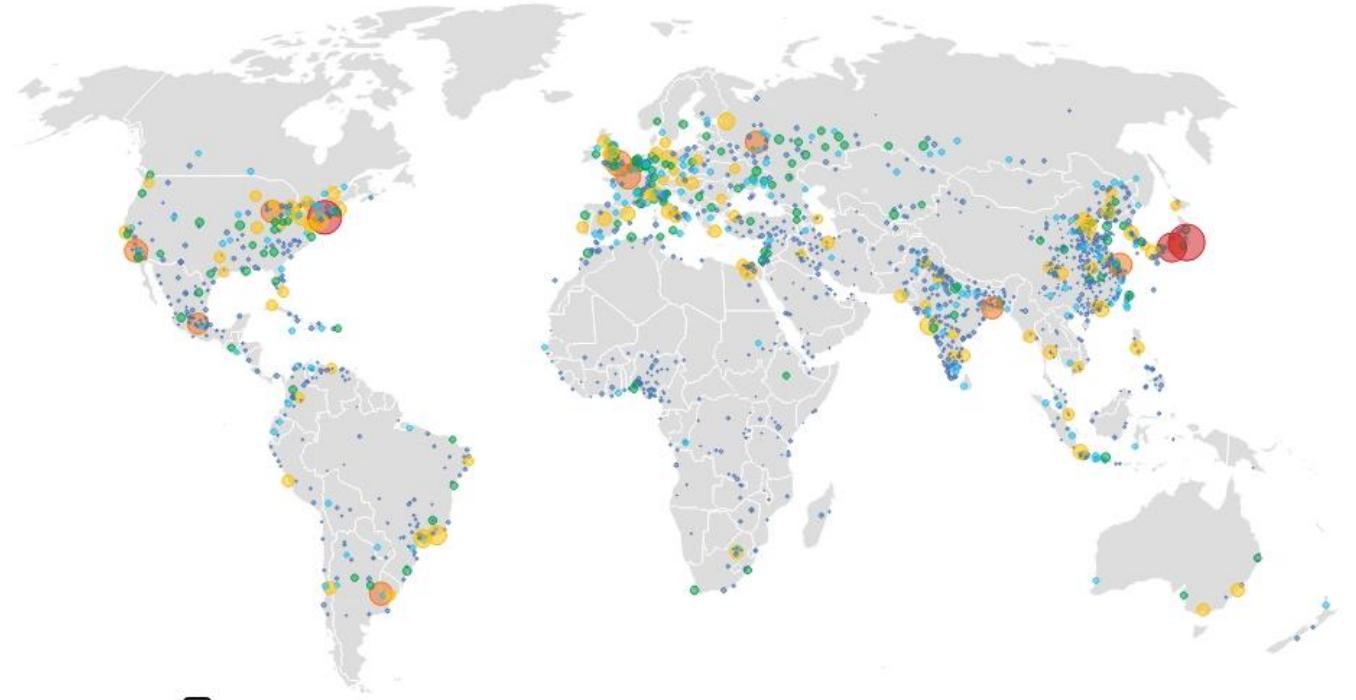
2.3%
Smallest cities
300,000 to 500,000

3.0%
Small cities
500,000 to 1m

5.9%
Medium cities
1m to 5m

2.0%
Large cities
5m to 10m

1.4%
Megacities
10m or more



Source: UN

*Dataset comprises urban agglomerations with 300,000 inhabitants or more in 2014.
Data are for countries existing in 2014, mapped on modern borders. Projections from 2014.

In 1960, the world had 3 megacities: Tokyo (17 M), New York (12 M) and Osaka (11 M).

Em 1960, o mundo tinha 3 megacidades: Tóquio (17 M), Nova Iorque (12 M) e Osaka (11 M).

Urbanisation, 1970

Search cities

GLOBAL CITY POPULATIONS*

63.4%

Rural

19.7%

Other urban

Fewer than 300,000

2.4%

Smallest cities

300,000 to 500,000

3.5%

Small cities

500,000 to 1m

6.6%

Medium cities

1m to 5m

2.9%

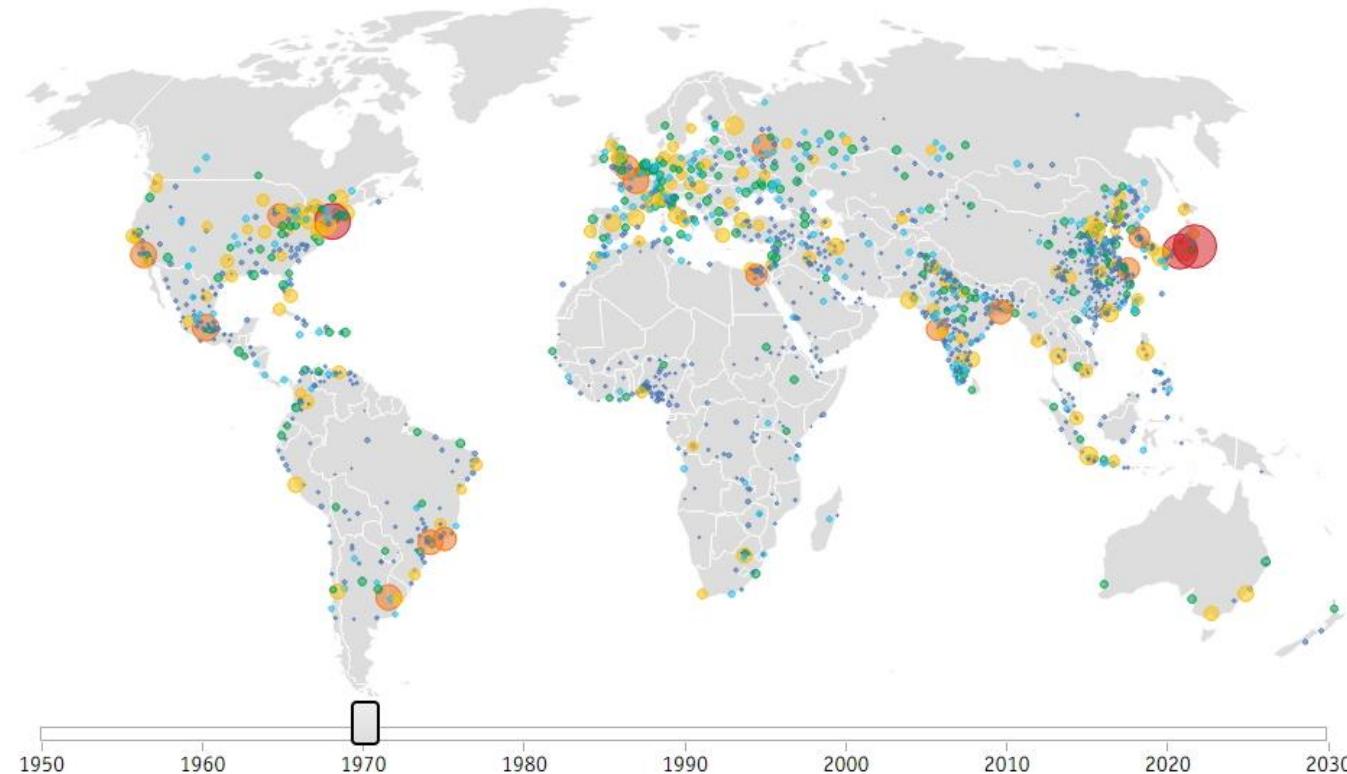
Large cities

5m to 10m

1.5%

Megacities

10m or more



Source: UN

*Dataset comprises urban agglomerations with 300,000 inhabitants or more in 2014.
Data are for countries existing in 2014, mapped on modern borders. Projections from 2014.

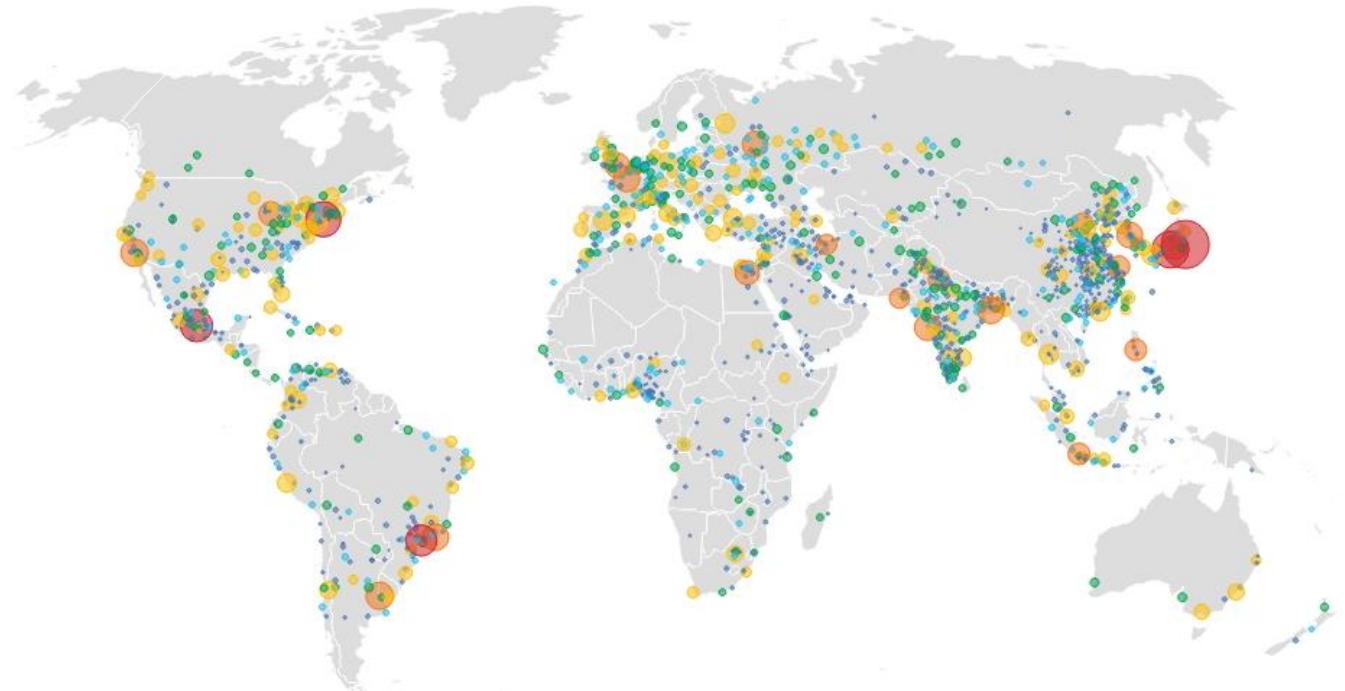
The population of the 3 megacities is increasingly higher: Tokyo (23 M), New York (16 M) and Osaka (15 M). In 20 years, Tokyo has doubled its population.

A população das 3 megacidades continua a aumentar: Tóquio (13 M), Nova Iorque (16 M) e Osaka (15 M). Em 20 anos, Tóquio duplicou a sua população.

Urbanisation, 1980

Search cities

GLOBAL CITY POPULATIONS*



Source: UN



*Dataset comprises urban agglomerations with 300,000 inhabitants or more in 2014.
Data are for countries existing in 2014, mapped on modern borders. Projections from 2014.

In 1980, 60% of the world population was rural (against 70% in 1950).

The world had 5 megacities: Tokyo (28 M), Osaka (17 M), New York (16 M), and in the Global South, Mexico City (13M) and São Paulo (12 M).

Em 1980, 60% da população mundial era rural (face a 70% em 1950).

O mundo tinha 5 megacidades: Tóquio (28 M), Osaka (17 M), Nova Iorque (16 M) e, no Sul Global, Cidade do México (13 M) e São Paulo (12 M).



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25 YEARS

1054239348

Mexico City, 1982 (Source: Benoit Gysembergh, Gettyimages)



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Hulton Archive

25 YEARS

São Paulo, 1980 (Source: Hulton Archive. Gettyimages)

Urbanisation, 1990

Search cities

GLOBAL CITY POPULATIONS*

57.1%
Rural

21.7%
Other urban
Fewer than 300,000

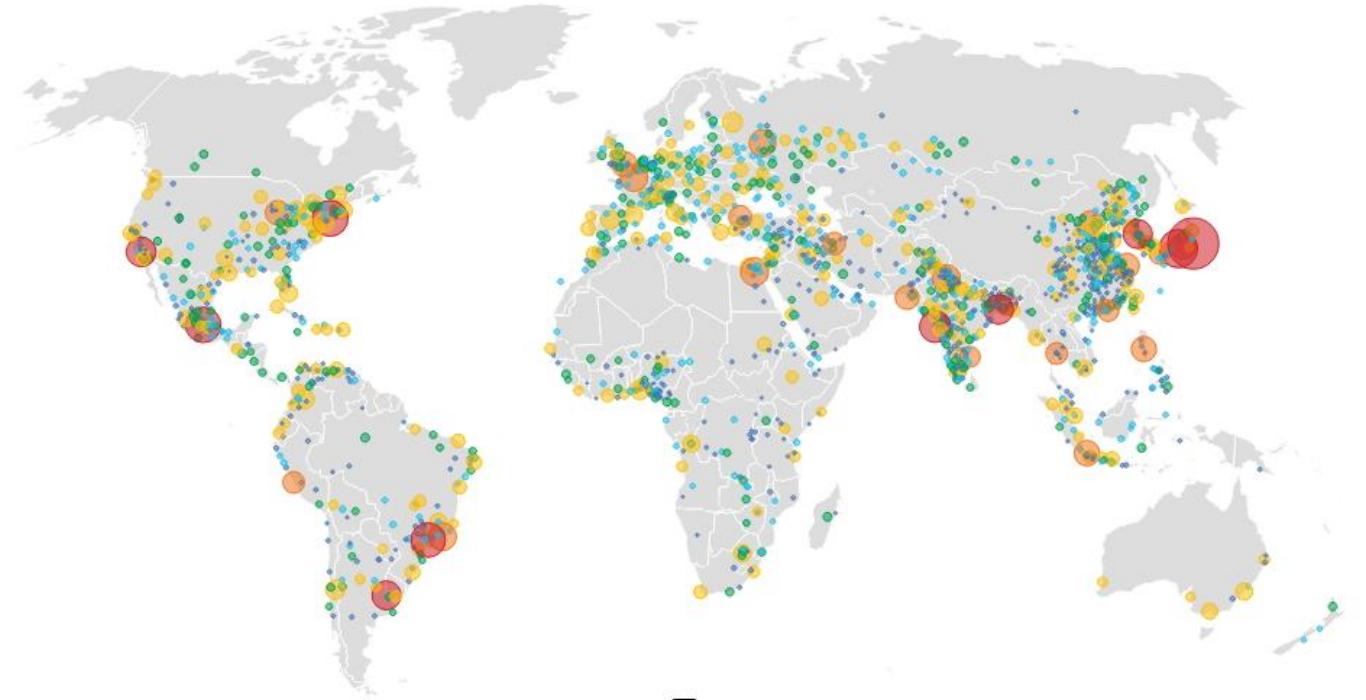
3.0%
Smallest cities
300,000 to 500,000

3.8%
Small cities
500,000 to 1m

8.6%
Medium cities
1m to 5m

3.0%
Large cities
5m to 10m

2.9%
Megacities
10m or more



Source: UN

1950 1960 1970 1980 1990 2000 2010 2020 2030

*Dataset comprises urban agglomerations with 300,000 inhabitants or more in 2014.
Data are for countries existing in 2014, mapped on modern borders. Projections from 2014.

In 1990, there were 10 megacities, all in America (North and South) and in Asia.

The 5 new megacities were: Mumbai (12 M), Kolkata (11 M), Los Angeles (11 M), Buenos Aires (11 M) and Seoul (11 M).

Em 1990, havia 10 megacidades, todas na América (Norte e Sul) e na Ásia.

As 5 novas megacidades eram: Bombaim (12 M), Calcutá (11 M), Los Angeles (11 M), Buenos Aires (11 M) e Seul (11 M).



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Gerard SIOEN

Mumbai, 1990 (Source: Gerard Sioen. Gettyimages)

120392701



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Francois ANCELLET

25 YEARS

Kolkata, 1992 (Source: François Ancellet. Gettyimages)

948912170



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25^{YEARS}

George Rose

Los Feliz district, Los Angeles, 1991 (Source: George Rose. Gettyimages)



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Wolfgang Kaehler

25 YEARS

미용실

Seoul, 1992 (Source: Wolfgang Kaehler. Gettyimages)

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Christopher Pillitz

25 YEARS

Buenos Aires, 1993 (Source: Christopher Pillitz, Gettyimages)

200529201-001

Urbanisation, 2000

Search cities

GLOBAL CITY POPULATIONS*

53.4%
Rural
-

21.9%
Other urban
Fewer than 300,000

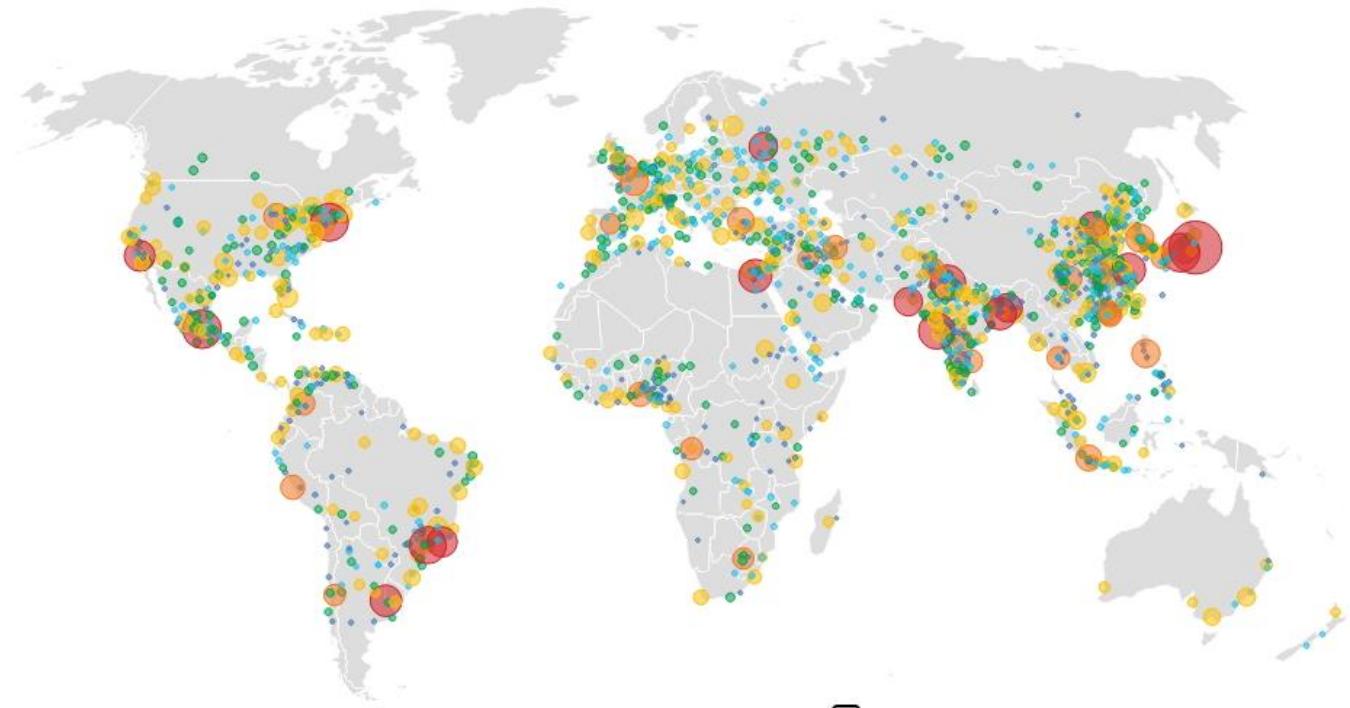
3.1%
Smallest cities
300,000 to 500,000

4.3%
Small cities
500,000 to 1m

9.8%
Medium cities
1m to 5m

3.4%
Large cities
5m to 10m

4.2%
Megacities
10m or more



Source: UN

*Dataset comprises urban agglomerations with 300,000 inhabitants or more in 2014.
Data are for countries existing in 2014, mapped on modern borders. Projections from 2014.

In 2000, there were 16 megacities.

There were 7 new megacities (for the first time, one in Africa and one in Europe): Delhi (16 M), Shanghai (14 M), Cairo (14 M), Rio de Janeiro (11 M) Dhaka (10 M), Karachi (10 M) and Moscow (10 M).

Em 2000, havia 16 megacidades.

Existiam 7 novas megacidades (pela primeira vez, uma em África e outra na Europa): Deli (16 M), Xangai (14 M), Cairo (14 M), Rio de Janeiro (11 M) Dhaka (10 M), Karachi (10 M) e Moscovo (10 M).

Urbanisation, 2010

Search cities

GLOBAL CITY POPULATIONS*

48.4%
Rural

23.1%
Other urban
Fewer than 300,000

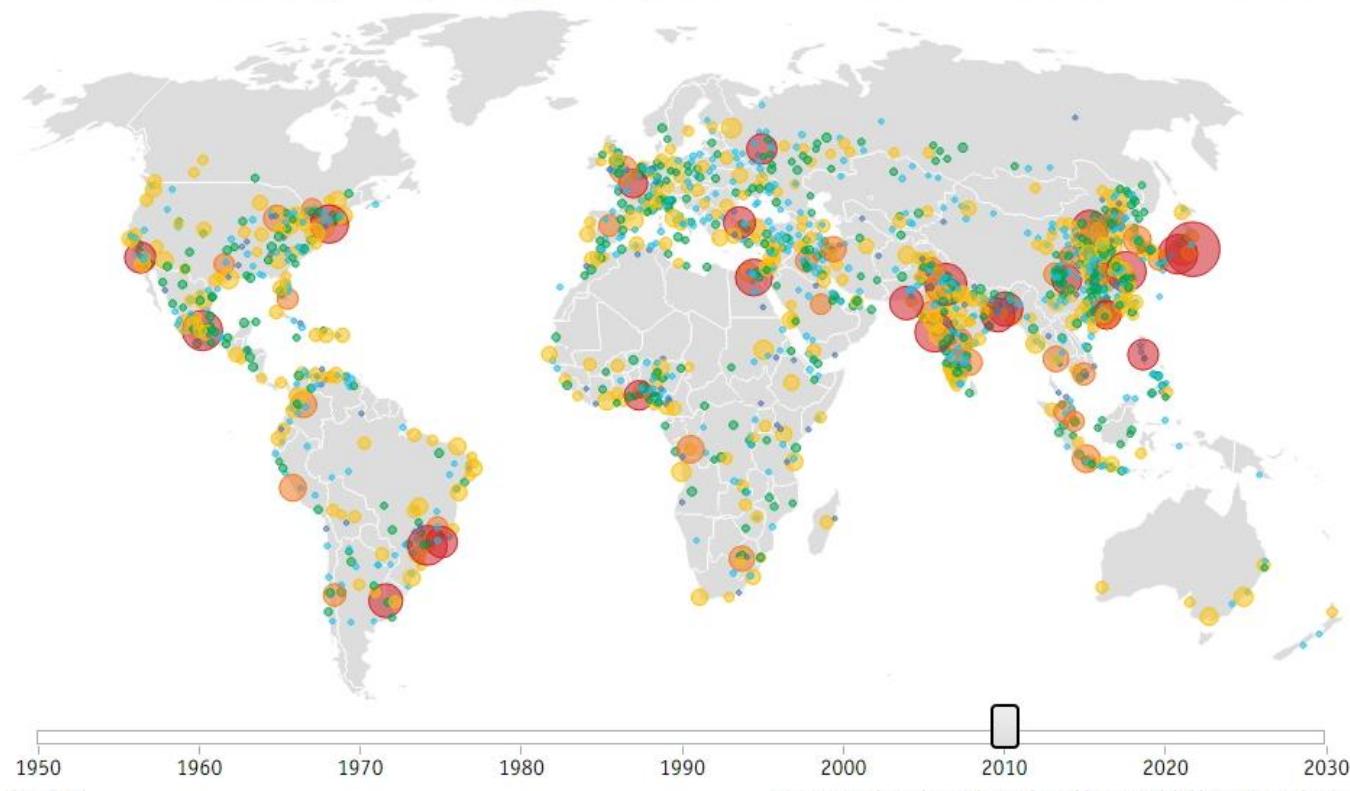
3.4%
Smallest cities
300,000 to 500,000

4.9%
Small cities
500,000 to 1m

10.7%
Medium cities
1m to 5m

4.1%
Large cities
5m to 10m

5.3%
Megacities
10m or more



*Dataset comprises urban agglomerations with 300,000 inhabitants or more in 2014.
Data are for countries existing in 2014, mapped on modern borders. Projections from 2014.

In 2010, for the first time, the urban population is higher than the rural population.

11% of the world population lives in medium cities (1 – 5 M); 5% of the population lives in 23 megacities. There are 7 new megacities: Beijing (16 M), Istanbul (13 M), Manila (12 M), Chongqing (11 m), Lagos (11 M), Paris (11 M) and Shenzhen (10 M).

Em 2010, pela primeira vez, a população urbana é maior do que a rural.

11% da população mundial vive em cidades médias (1 - 5 M); 5% da população vive em 23 megacidades.

Existem 7 novas megacidades: Pequim (16), Istambul (13), Manila (12), Chongqing (11), Lagos (11), Paris (11) e Shenzhen (10).

Urbanisation, 2020

Search cities

GLOBAL CITY POPULATIONS*

43.8%
Rural

23.2%
Other urban
Fewer than 300,000

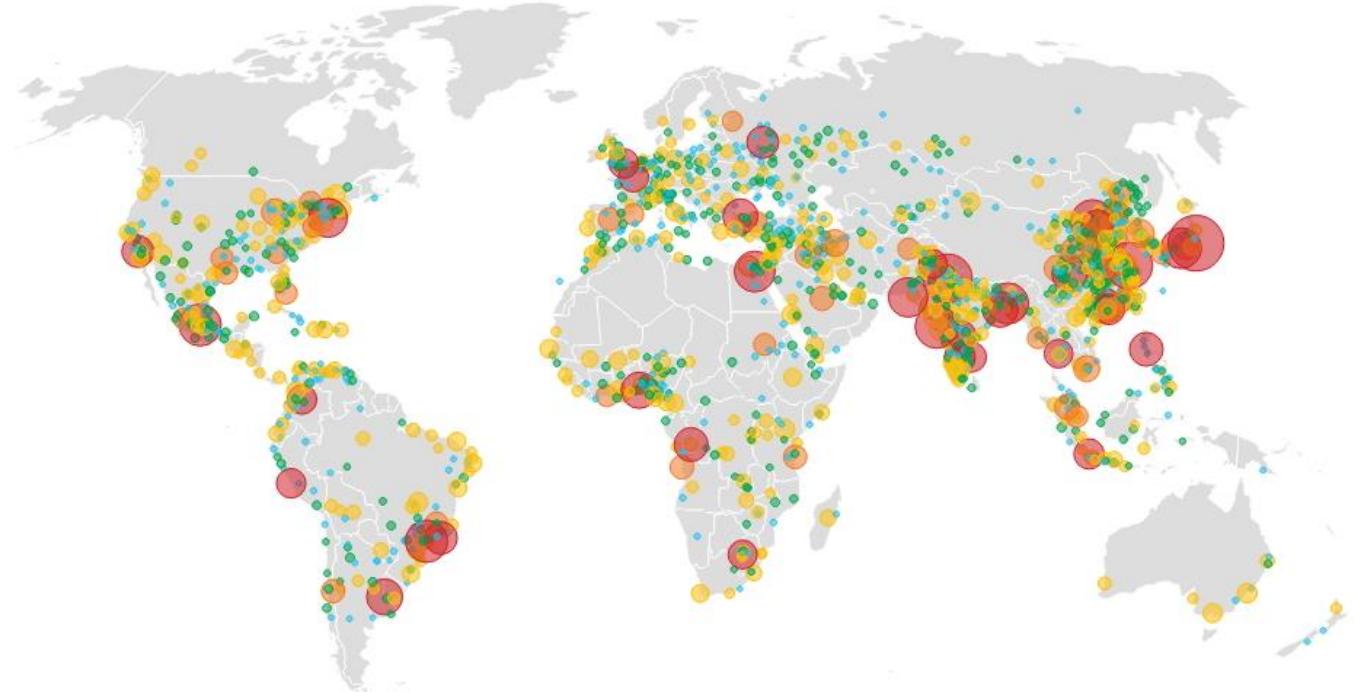
3.7%
Smallest cities
300,000 to 500,000

5.3%
Small cities
500,000 to 1m

12.1%
Medium cities
1m to 5m

4.3%
Large cities
5m to 10m

7.6%
Megacities
10m or more



1950 1960 1970 1980 1990 2000 2010 2020 2030

Source: UN

*Dataset comprises urban agglomerations with 300,000 inhabitants or more in 2014.
Data are for countries existing in 2014, mapped on modern borders. Projections from 2014.

In 2020, 56 % of the word population is urban, and 44% is rural.

Cities with less than 300.000 inhabitants represent 23% of the total, medium cities (1-5 M) represent 12%, and the 36 megacities represent 8% of the world population.

More than half of the megacities is in Asia.

Em 2020, 56% da população mundial é urbana e 44% é rural.

Cidades com menos de 300.000 hab. representam 23%, cidades médias (1-5 M) rep. 12%, e as 34 megacidades rep. 8% da população. Cerca de metade das megacidades está na Ásia.

Table. 36 Megacities (1950-2000).

Residents in millions. Source: United Nations, WUP

	New York	Tokyo	Osaka	Mexico City	São Paulo	Mumbai	Kolkota	Los Angeles	Buenos Aires	Delhi	Shanghai	Cairo	Rio	Dhaka	Karachi	Moscow
1950	12.3	11.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1960	14.2	16.7	10.6	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	16.2	23.3	15.3	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	15.6	28.5	17.0	13.0	12.0	-	-	-	-	-	-	-	-	-	-	-
1990	16.1	32.5	18.4	15.6	14.8	12.4	10.9	10.9	10.5	-	-	-	-	-	-	-
2000	17.8	34.5	18.7	18.5	17.0	16.4	13.1	11.8	12.4	15.7	14.0	13.6	11.3	10.3	10.0	10.0
2010	18.4	36.8	19.5	20.1	19.7	19.4	14.3	12.2	14.2	21.9	20.0	16.9	12.4	14.7	14.1	11.5
2020	18.8	38.3	20.5	21.9	22.1	22.8	15.7	12.5	15.9	29.3	27.1	20.6	13.3	21.0	19.2	12.5

In 2020, the largest megacities are: Tokyo (38 M), Delhi (29), Shanghai (27), Beijing (24, in the next table), São Paulo (22), Mexico City (22) and Osaka (20).

Tokyo has been the largest megacity since 1960.

The highest growth rates have been in Tokyo, between 1950 and 1970; and Dhaka, Karachi, Shanghai and Delhi, between 2000 and 2020.

Em 2020, as maiores megacidades são: Tóquio (38 M), Deli (29), Xangai (27), Pequim (24, na tabela seguinte), São Paulo (22), Cidade do México (22) e Osaka (20).

Tóquio é a maior megacidade desde 1960.

As maiores taxas de crescimento ocorreram em Tóquio, entre 1950 e 1970; e Dhaka, Karachi, Xangai e Deli, entre 2000 e 2020.

Table. 36 Megacities (1950-2000).
 Residents in millions. Source: United Nations, WUP

	Beijing	Istanbul	Manila	Chongqing	Lagos	Paris	Shenzen	Guanzhou	Kinshasa	Tianjin	Bangalore	Jakarta	Chennai	Lima	London	Bogotá	Johannesburg	Hyderabad	Bangkok	Lahore
2010	16.2	12.7	11.9	11.2	10.8	10.5	10.2	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	24.2	15.1	13.9	15.2	16.2	11.3	11.3	15.2	14.1	13.6	12.3	11.3	11.2	10.8	10.8	10.7	10.4	10.3	10.1	10.1

In 2000 there were 16 megacities; in 2020 the number more than doubled (36).

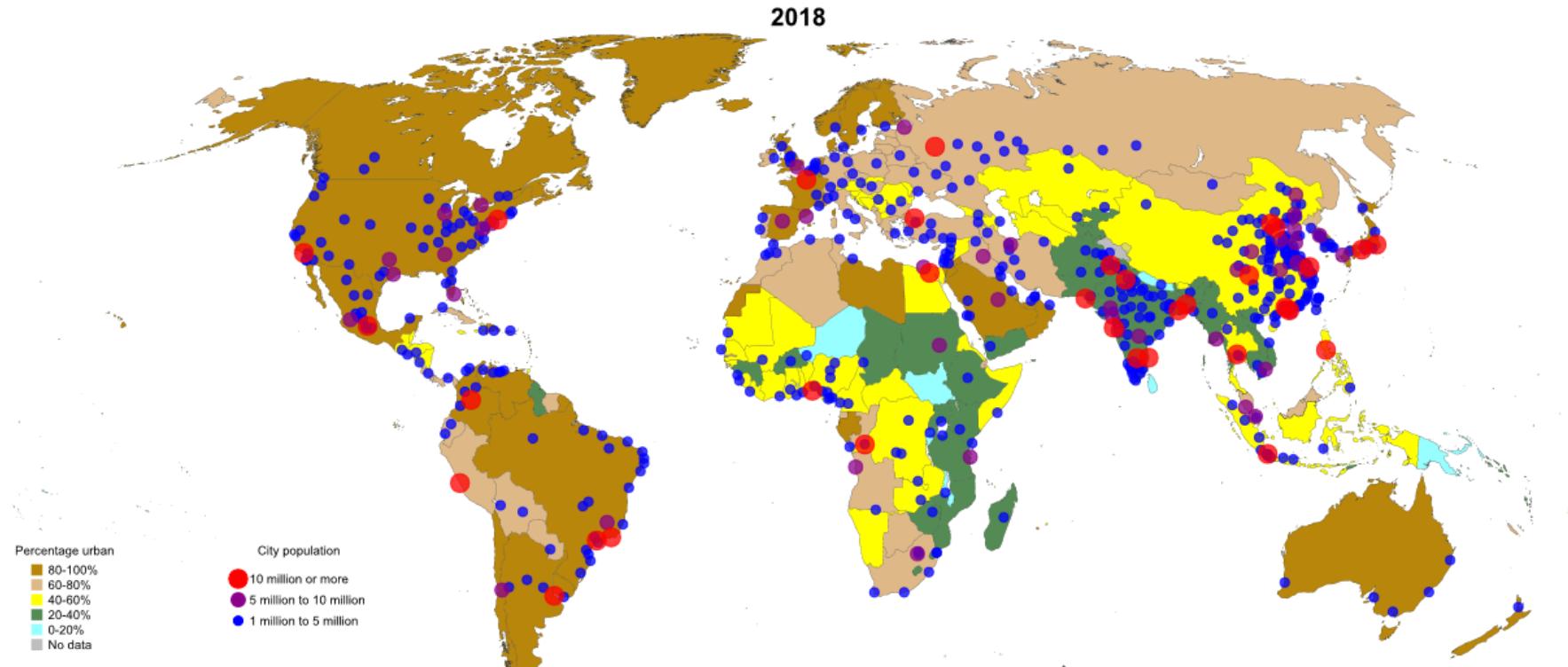
20 megacities are in Asia (6 in China and 6 in India), 8 are in America (6 in the South and 2 in the North), 4 are in Africa and 3 are in Europe (Istanbul is not considered as it has one part in Asia and one in Europe).

The rhythm of growth, between 2010 and 2020, of Beijing and Lagos has been particularly high.

Em 2000, existiam 16 megaciudades; em 2020, o número de megaciudades é mais do dobro (36).

20 megaciudades localizam-se na Ásia (6 na China e 6 na Índia), 8 na América (6 no Sul e 2 no Norte), 4 em África e 3 na Europa (Istambul não é considerada pois tem uma parte na Ásia e uma parte na Europa).

O ritmo de crescimento, entre 2010 e 2020, de Pequim e Lagos foi particularmente elevado.



Data source: World urbanization Prospects: The 2018 Revision

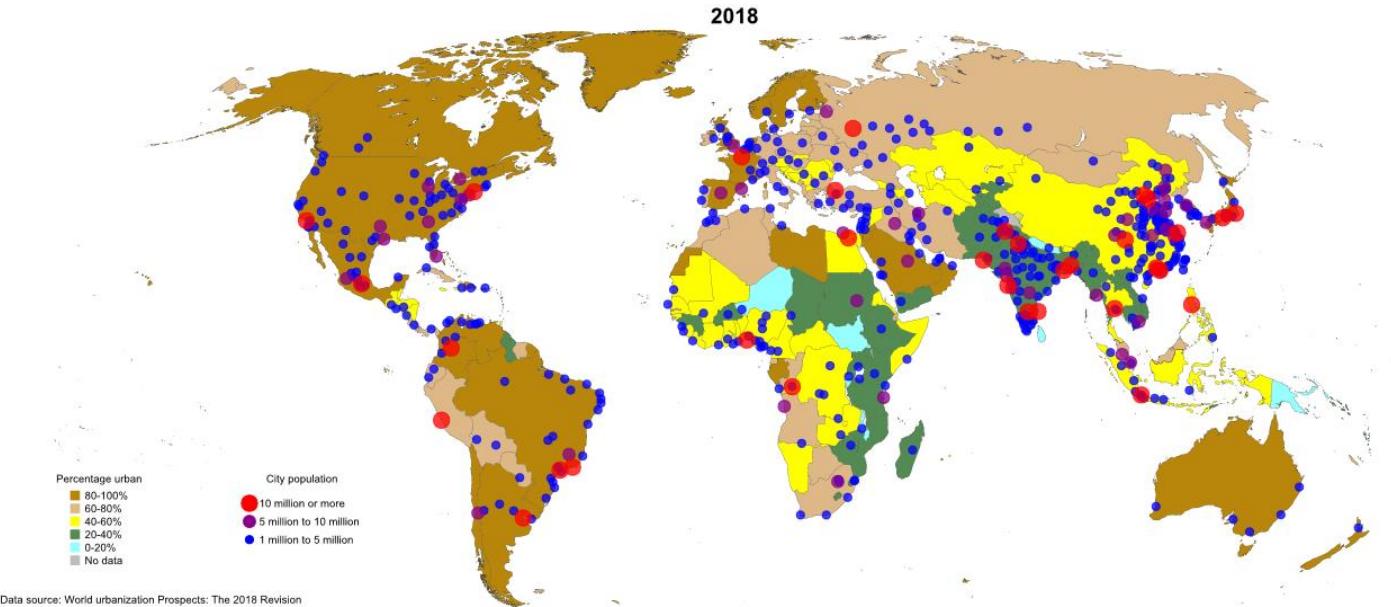
The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

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% of urban population

Africa	42.5
Asia	49.9
Europe	74.5
South America	80.7
North America	82.2
Oceania	68.2
WORLD	55.3

Source: United Nations, WUP



In America, Europe and Oceania, most countries are mostly urban.

In Africa, most countries are mainly rural.

2 (Egypt and Democratic Republic of the Congo) of the 4 countries with megacities are mostly rural, one is mostly urban (South Africa), and there is a balance in the 4th (Nigeria).

In Asia, there is a balance between rural and urban countries.

4 (India, Pakistan, Bangladesh and Philippines) of the 8 countries with megacities are mostly rural, 3 (China, Japan and Indonesia) are mostly urban, and there is a balance in the 8th (Thailand).

Na América, Europa e Oceania, a maioria dos países é maioritariamente urbana.

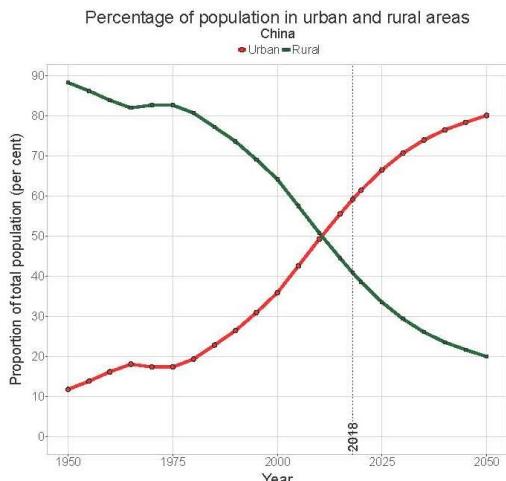
Em África, a maioria dos países é principalmente rural.

Dois (Egito e República Democrática do Congo) dos 4 países com megacidades são principalmente rurais, um é predominantemente urbano (África do Sul) e há um equilíbrio no 4º país (Nigéria).

Na Ásia, existe um equilíbrio entre os países rurais e urbanos.

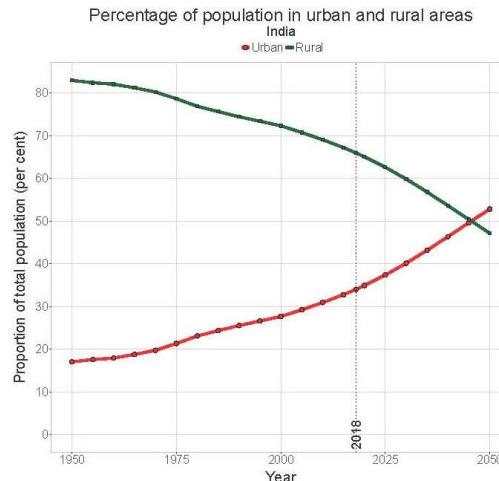
Quatro (Índia, Paquistão, Bangladesh e Filipinas) dos 8 países com megacidades são principalmente rurais, 3 (China, Japão e Indonésia) são predominantemente urbanos, e há um equilíbrio no 8º país (Tailândia).

Country profiles: China, India and Japan



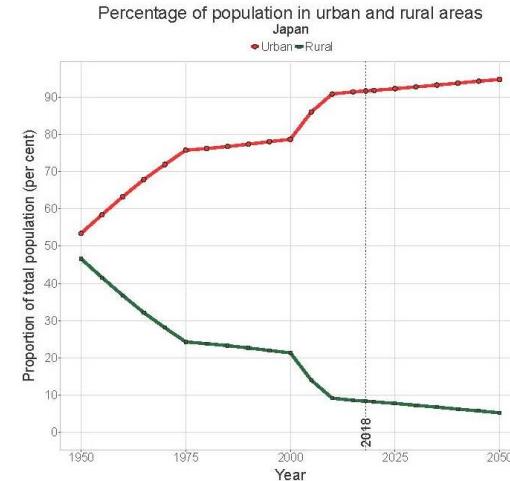
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Note: Urban and rural population in the current country or area as a percentage of the total population, 1950 to 2050.



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Note: Urban and rural population in the current country or area as a percentage of the total population, 1950 to 2050.



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Note: Urban and rural population in the current country or area as a percentage of the total population, 1950 to 2050.

Source: United Nations, WUP

In 1950 most Chinese and Indian population were rural (near 90% and 80%, respectively); while more than 50 % of Japanese population was urban.

In the present more than 90% of Japanese population and 60% of Chinese population is urban, while in India only 35% of the population is urban.

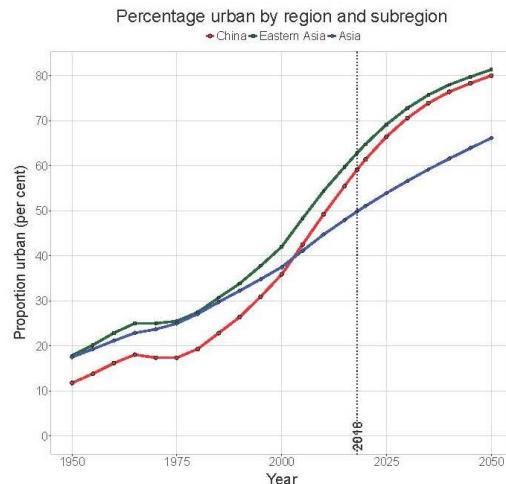
In 2050, in the three countries, most of the population will be urban.

Em 1950, a maioria da população Chinesa e Indiana era rural (cerca de 90% e 80%, respectivamente); enquanto mais de 50% da população Japonesa era urbana.

Actualmente, mais de 90% da população Japonesa e 60% da população Chinesa é urbana, enquanto na Índia apenas 35% da população é urbana.

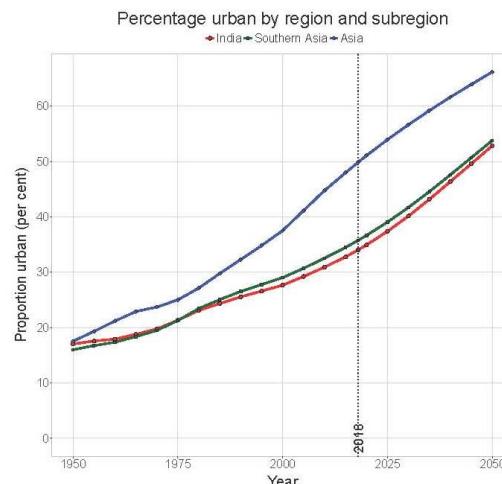
Em 2050, nos três países, a maior parte da população será urbana.

Country profiles: Comparison of China, India and Japan (red) with sub-continent (green) and continent (blue)



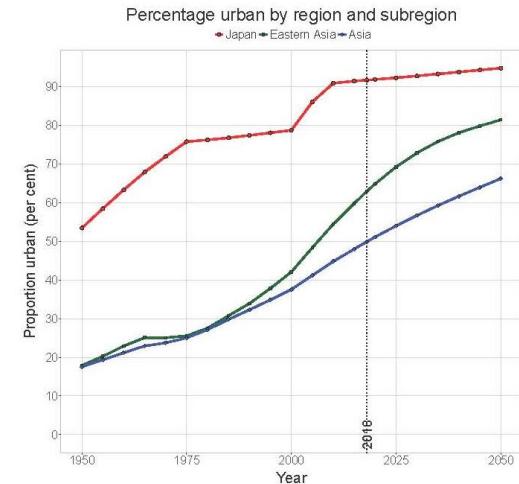
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Note: Proportion of urban population in the current country as compared to its subregion and region. The proportion is expressed as a percentage of the total population, 1950 to 2050.



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Note: Proportion of urban population in the current country as compared to its subregion and region. The proportion is expressed as a percentage of the total population, 1950 to 2050.



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Note: Proportion of urban population in the current country as compared to its subregion and region. The proportion is expressed as a percentage of the total population, 1950 to 2050.

Source: United Nations, WUP

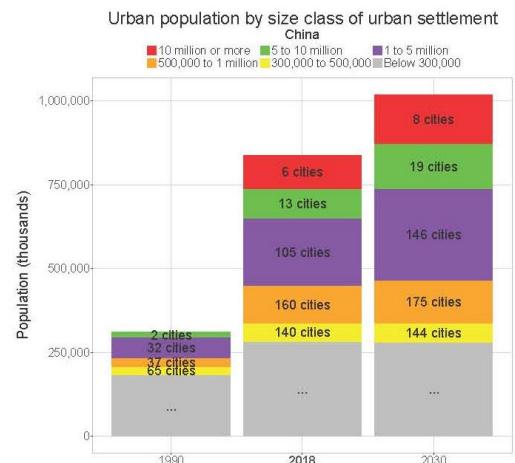
In 1950, urban population in China was lower than the Eastern Asia and Asia averages; in India it was close to the Southern Asia and Asia averages; and in Japan it considerably higher than the Eastern Asia and Asia averages. Nowadays, the urban population in China is higher than the Asian average, but lower than the Eastern Asia average; in India it is lower than the sub-continent and the continent averages; and in Japan it is higher than the two averages.

This tendency will continue in the next three decades.

Em 1950, a população urbana da China era inferior à média da Ásia Oriental e da Ásia; na Índia, era próxima da média do Sul da Ásia e da Ásia; e no Japão era consideravelmente mais alta do que a média da Ásia Oriental e da Ásia.

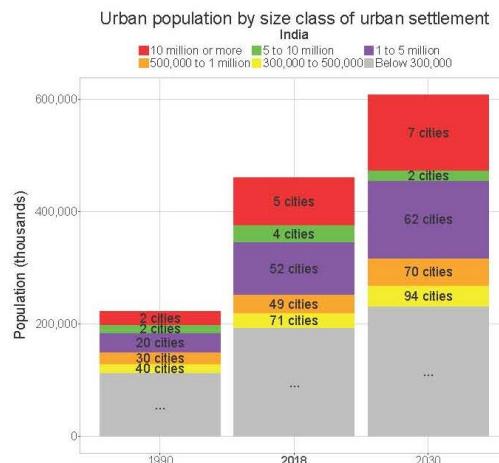
Actualmente, a população urbana na China é superior à média Asiática, mas inferior à média do Asia Oriental; na Índia, é inferior às médias do subcontinente e do continente; e no Japão é superior às duas médias.

Essa tendência continuará nas próximas três décadas.



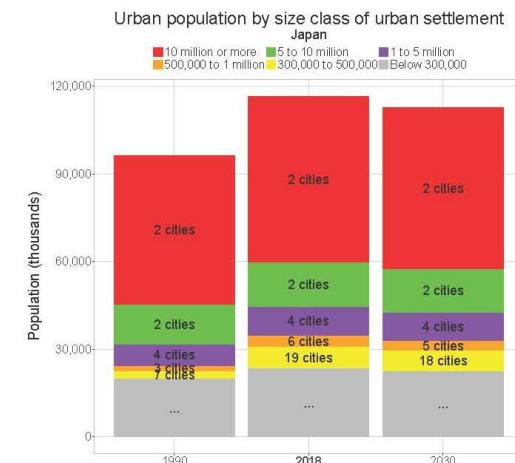
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Note: Urban population by size class of urban settlement and number of cities, 1990, 2018 and 2030. The grey area is a residual category that includes all urban settlements with a population of less than 300,000 inhabitants.



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Note: Urban population by size class of urban settlement and number of cities, 1990, 2018 and 2030. The grey area is a residual category that includes all urban settlements with a population of less than 300,000 inhabitants.



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Note: Urban population by size class of urban settlement and number of cities, 1990, 2018 and 2030. The grey area is a residual category that includes all urban settlements with a population of less than 300,000 inhabitants.

Source: United Nations, WUP

In 1990, in China and India, most of the urban population was living in cities with less than 300,000 inhabitants.
In China, in last decades, the urban population has been growing, including now 105 cities of 1-5 M and 6 megacities.
In India, it includes 52 cities of 1-5 M and 6 megacities.
In Japan, in 1990 and in the present, most of urban population is in two megacities, Tokyo and Osaka.

Em 1990, na China e na Índia, a maior parte da população urbana vivia em cidades com menos de 300.000 habitantes.
Na China, nas últimas décadas, a população urbana tem crescido, incluindo hoje 105 cidades de 1-5 M de habitantes, e 6 megacidades.
Na Índia, inclui hoje 52 cidades de 1 a 5 M de habitantes, e 6 megacidades.
No Japão, em 1990 e no presente, a maior parte da população urbana está em duas megacidades, Tóquio e Osaka.

TOKYO (1950-2020)

TÓQUIO(1950-2020)



RUSSIA

CHINA

NORTH
KOREA

SOUTH
KOREA

SEA OF
JAPAN

JAPAN

Tokyo

Osaka

PACIFIC
OCEAN



Tokyo, 2018 (Source: NASA)



Tokyo, Shinjuku (photograph by the author)



Tokyo, Shinjuku (photograph by the author)



Tokyo, Taito (photograph by the author)



1732 ma

Brief history of Tokyo

In the end of the 12th century, Tokyo (Edo) is established as a small castle town, occupying part of the area of present-day Imperial Palace.

In early 17th century, it had about one million residents, being one of the largest cities of the world.

In 1868, Tokyo became the capital of Japan, succeeding to Kyoto.

It suffered major destruction in the mid-1920s, with the Earthquake, and in the mid-1940s, with Second World War.

1964 Tokyo Olympics are one of the symbols of Japan and Tokyo recovery after the war.

-

No final do século XII, Tóquio (Edo) estabelece-se como uma pequena cidade muralhada, ocupando parte da área do atual Palácio Imperial.

No início do século XVII, a cidade tinha cerca de um milhão de habitantes, sendo uma das maiores do mundo.

Em 1868, torna-se a capital do Japão, sucedendo a Kyoto.

A cidade sofre grande destruição em meados da década de 1920, com o Terramoto, e em meados da década de 1940, com a Segunda Guerra Mundial.

Os Jogos Olímpicos de Tóquio de 1964 são um dos símbolos da recuperação do Japão e de Tóquio no pós-guerra.

Demography

	1950	1960	1970	1980	1990	2000	2010	2020	
Tokyo Metropolitan Area	11.3	16.7	23.3	28.5	32.5	34.5	36.8	38.3	29% of Japan population
Tokyo Metropolis (prefecture)	6.3	9.7	11.4	11.6	11.9	12.1	13.2	13.7	
Tokyo City	5.4	8.3	8.8	8.4	8.2	8.1	8.9	9.5	

Tokyo City is made of 23 special wards (a special form of municipality).

In the overall, at the three scales, there has been a growth of population from 1950 to 2020.

In the first decade there has been a substantial growth for the three scales.

After that, the processes have been different.

After 1960, it has been faster in the Metropolitan Area than in the Metropolis, and in the City, it included a period of loss of population – between 1970 and 2000.

No geral, nas três escalas, houve um crescimento populacional entre 1950 e 2020.

Na primeira década houve um crescimento substancial para as três escalas.

No entanto, depois disso o processo foi diferente para as três escalas.

Depois de 1960, foi mais rápido na Região Metropolitana do que na Metrópole e, na Cidade, incluiu um período de perda populacional - entre 1970 e 2000.

TOKYO METROPOLIS (2018)

Population

13.743.000

(female – 51 %, male – 49 %)

Composition by age (comparison with Japan)

Child population (0-14) – 11,5 %12,6

Working-age population (15-64) – 65,9 %.....60,7

Aged population (65 and over) – 22,7 %.....26,6

Households/families

6.912.000

Persons/household – 1,99

Dwellings

6.805.500 (?)

Buildings

1.974.732 (?)

Labor force population (6.094.000)

Employed - 5.859.000 (96,1%)

Unemployed – 235.000 (3,9%)

Employed persons by three industry sectors

Primary industry – 0,4 %

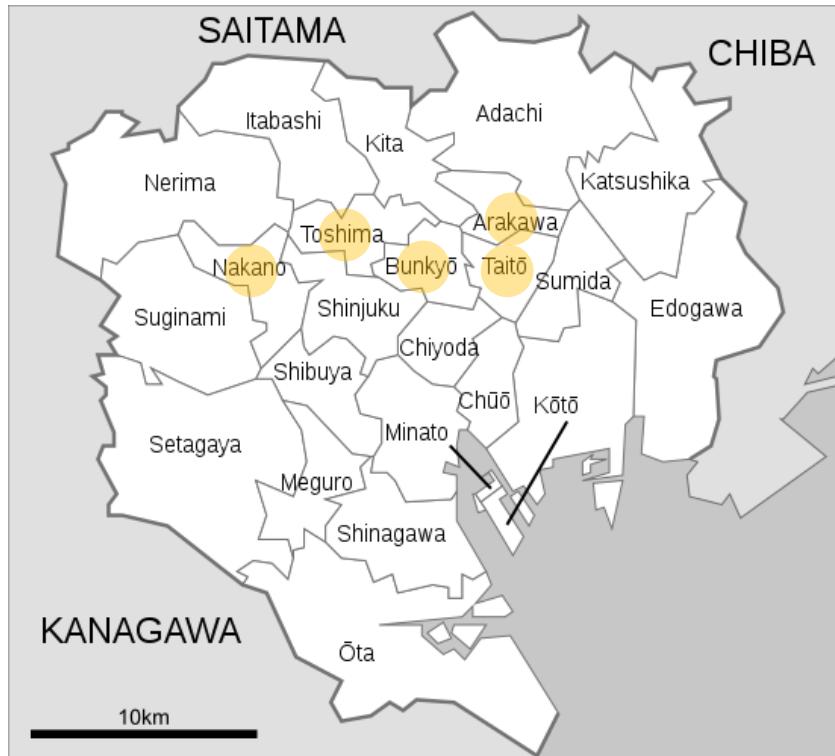
Secondary industry – 15,3 %

Tertiary industry – 72,1 %

Unclassified – 12,2 %

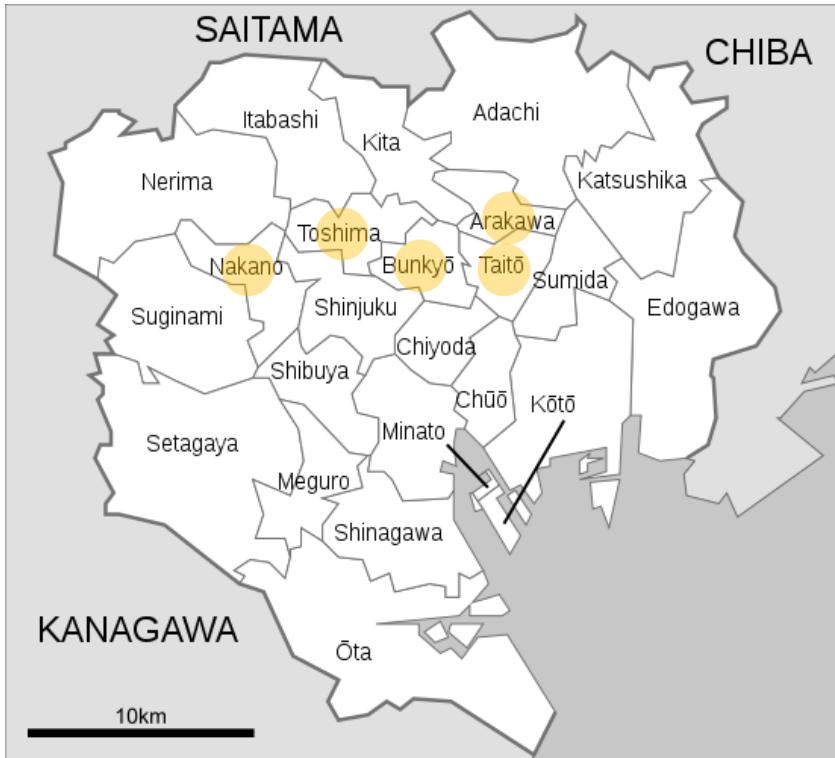
(source: Tokyo Metropolitan Government)

Population density



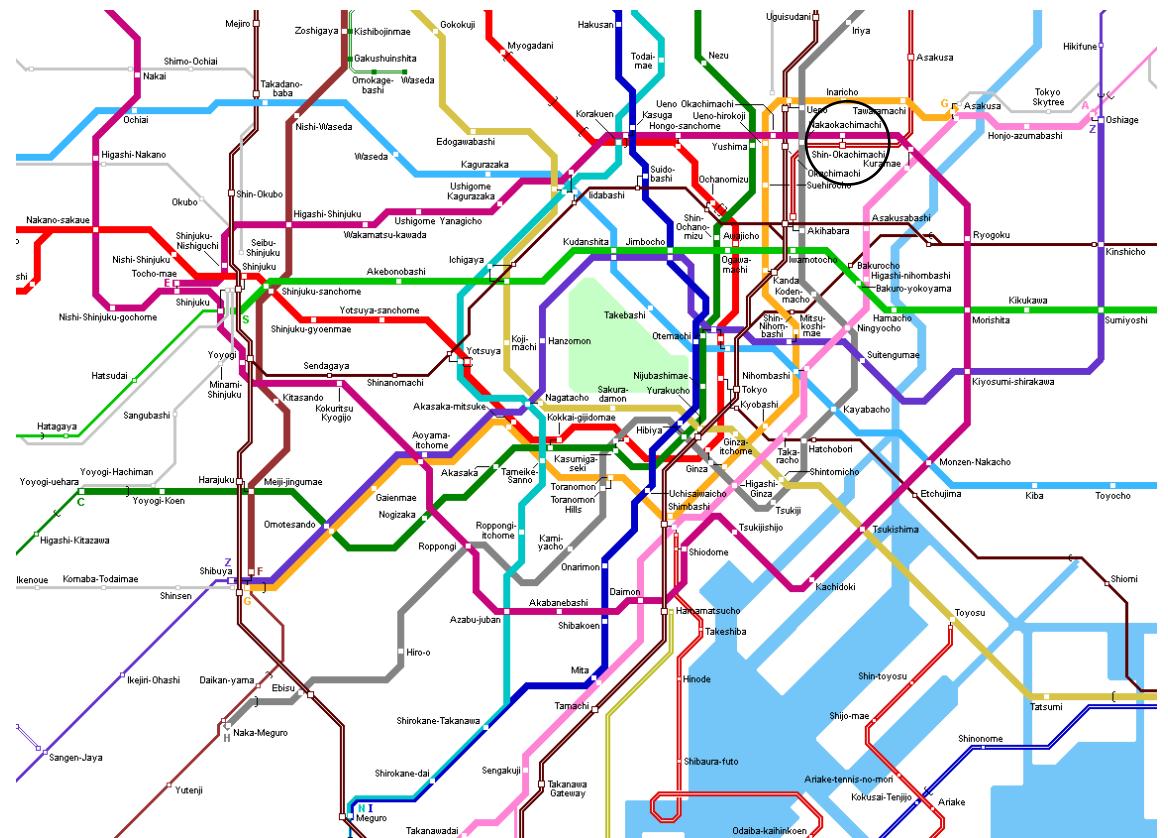
WARDS	POPULATION (2018)	AREA Km ²	POPULATION DENSITY
<i>Chiyoda</i>	63.165	11,66	5.417
<i>Chuo</i>	160.889	10,21	15.758
Minato	256.415	20,37	12.588
<i>Shinjuku</i>	346.958	18,22	19.043
Bunkyo	230.184	11,29	20.388
<i>Taito</i>	205.659	10,11	20.342
<i>Sumida</i>	266.605	13,77	19.361
Koto	515.029	40,16	12.824
Shinagawa	403.338	22,84	17.659
Meguro	285.110	14,67	19.434
Ota	734.381	60,83	12.072
Setagaya	929.448	58,05	16.011
Shibuya	231.700	15,11	15.334
Nakano	338.069	15,59	21.684
Suginami	579.877	34,06	17.025
Toshima	300.179	13,01	23.072
Kita	351.663	20,61	17.062
Arakawa	217.265	10,16	21.384
Itabashi	578.127	32,22	17.943
Nerima	735.212	48,08	15.291
Adachi	680.269	53,25	12.775
Katsushika	452.761	34,80	13.010
Edogawa	693.616	49,90	13.900
TOTAL	9.555.919	627,57	15.226

Population density (Taitō)



Taitō ward – 205.659 residents
Taitō box average (500 x 500m) – 5.085 residents

Transports (Tokyo and Taito)



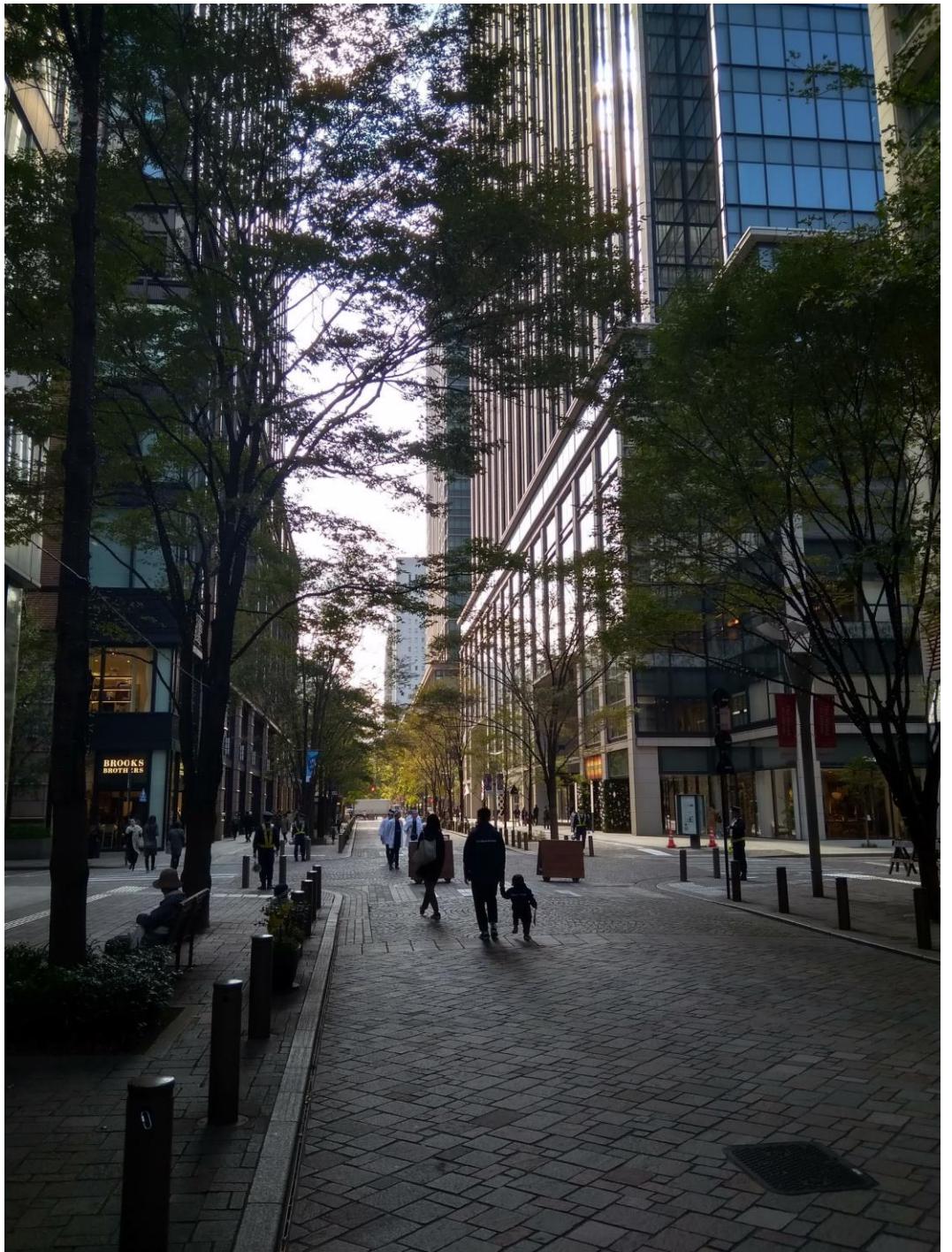
Shin Okachimachi
Train station
(Oedo Line - purple)



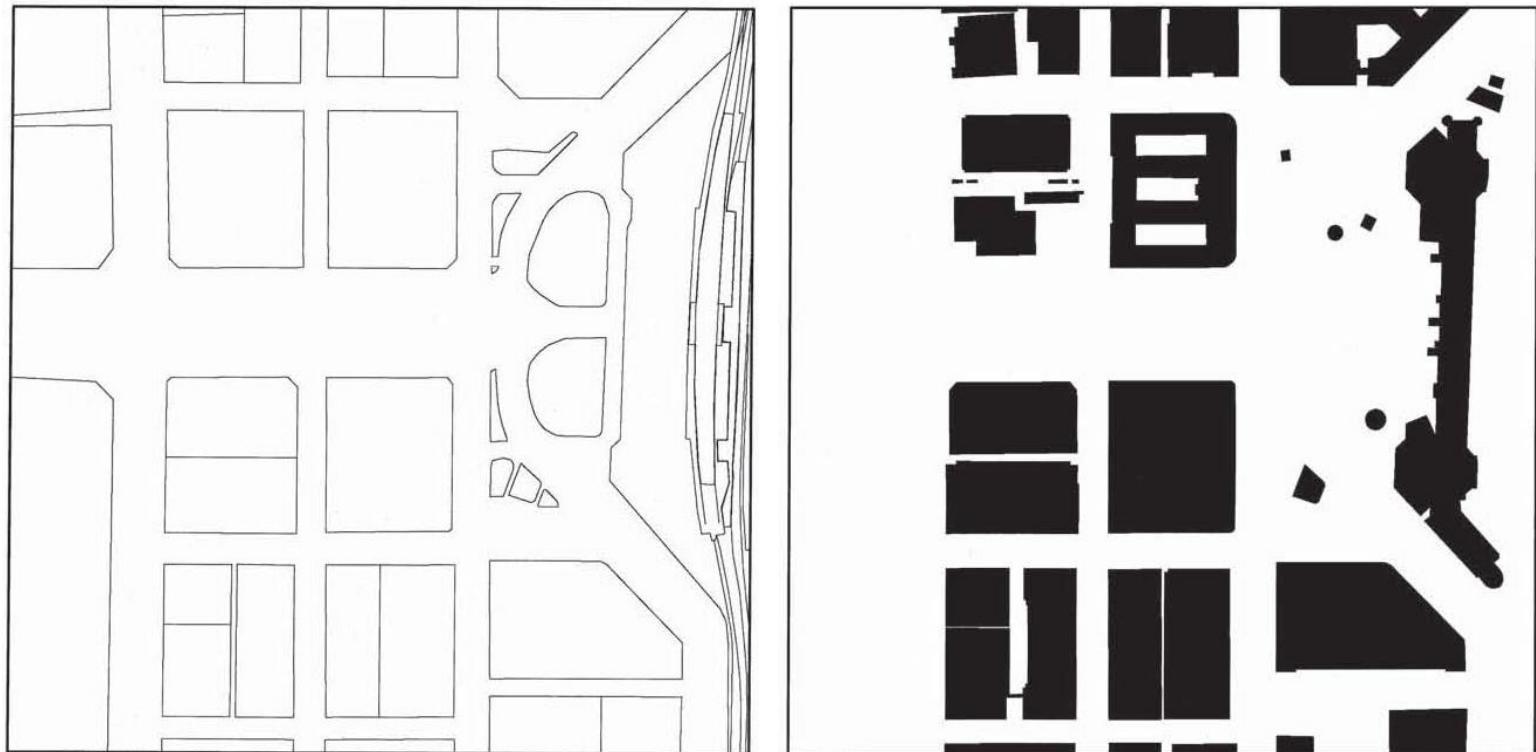
Taito box (500 x 500m)



Chiyoda: Imperial Palace (photograph by the author)



Chiyoda: Marunouchi (photograph by the author)

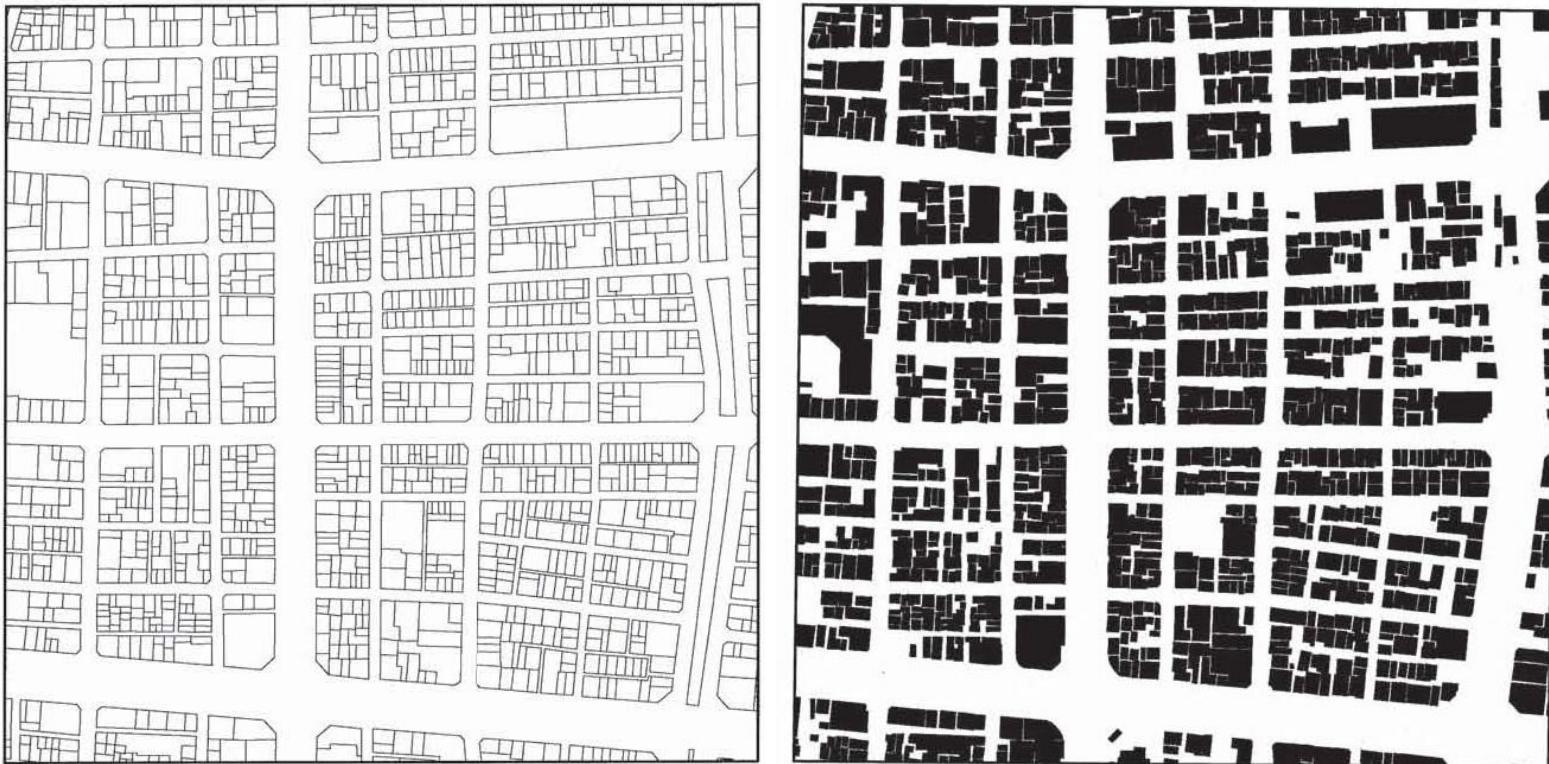


Chiyoda: Marunouchi – plots and block-plans of buildings
(Satoh 2003)





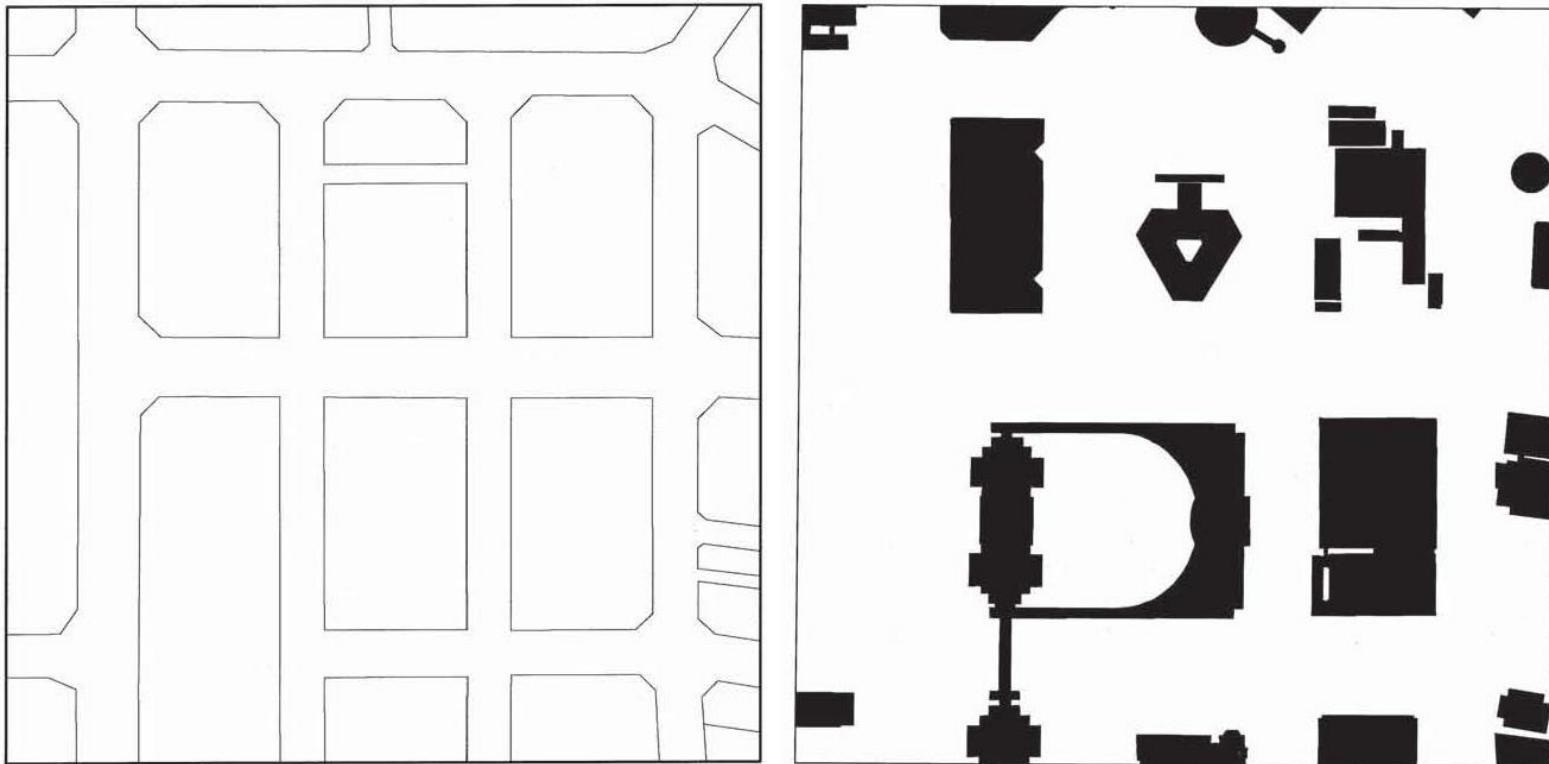
Chuo: Ningyocho (photograph by the author)



Chuo: Ningyocho – plots and block-plans of buildings
(Satoh 2003)



Shinjuku (photograph by the author)



Shinjuku – plots and block-plans of buildings
(Satoh 2003)





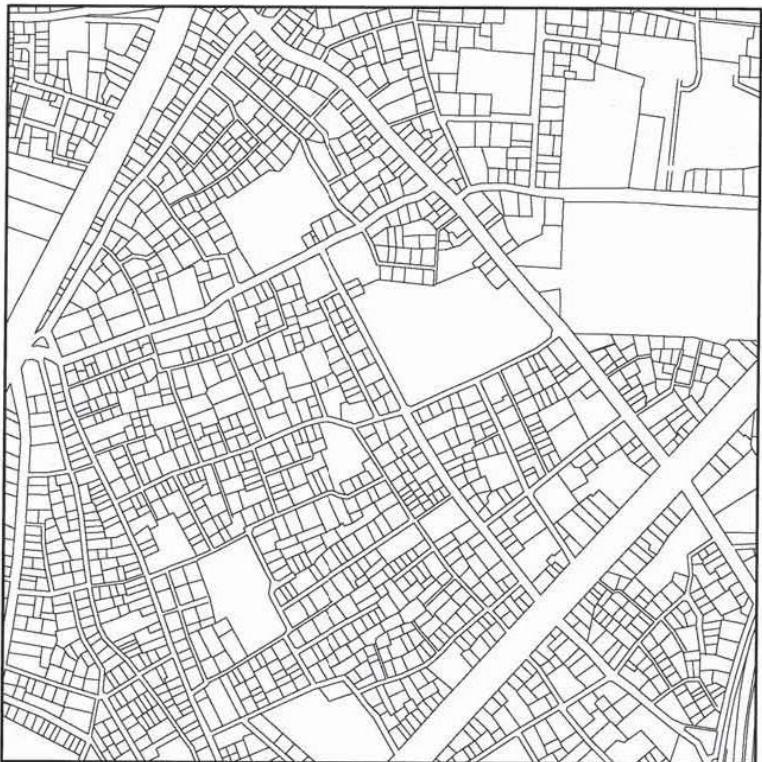
Taito: Kojima (photograph by the author)



Taito: Kojima – plots and block-plans of buildings
(Satoh 2003)



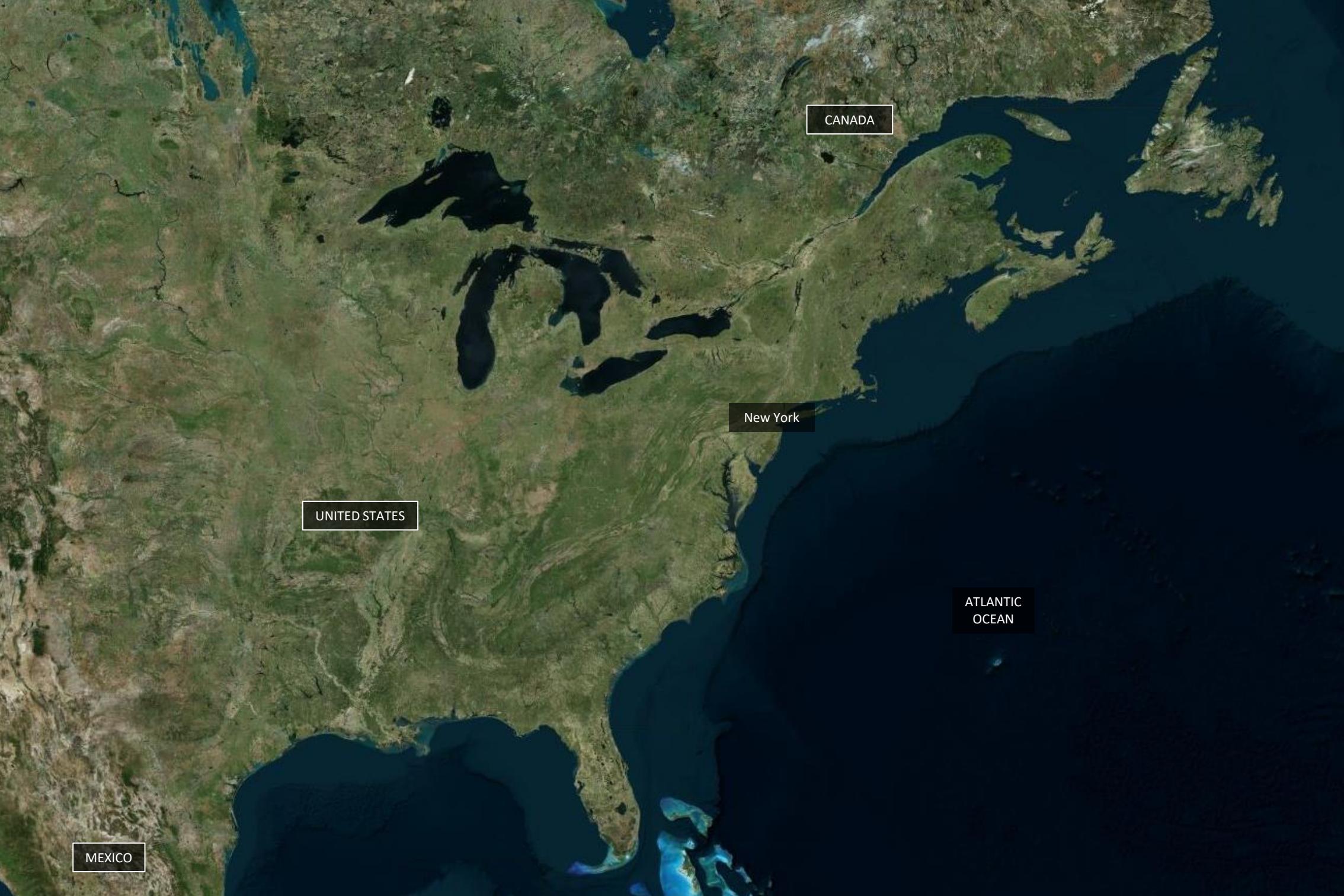
Sumida: Mukoujima (photograph by the author)



Sumida: Mukoujima – plots and block-plans of buildings
(Satoh 2003)

NEW YORK (1950-2020)

NOVA IORQUE (1950-2020)



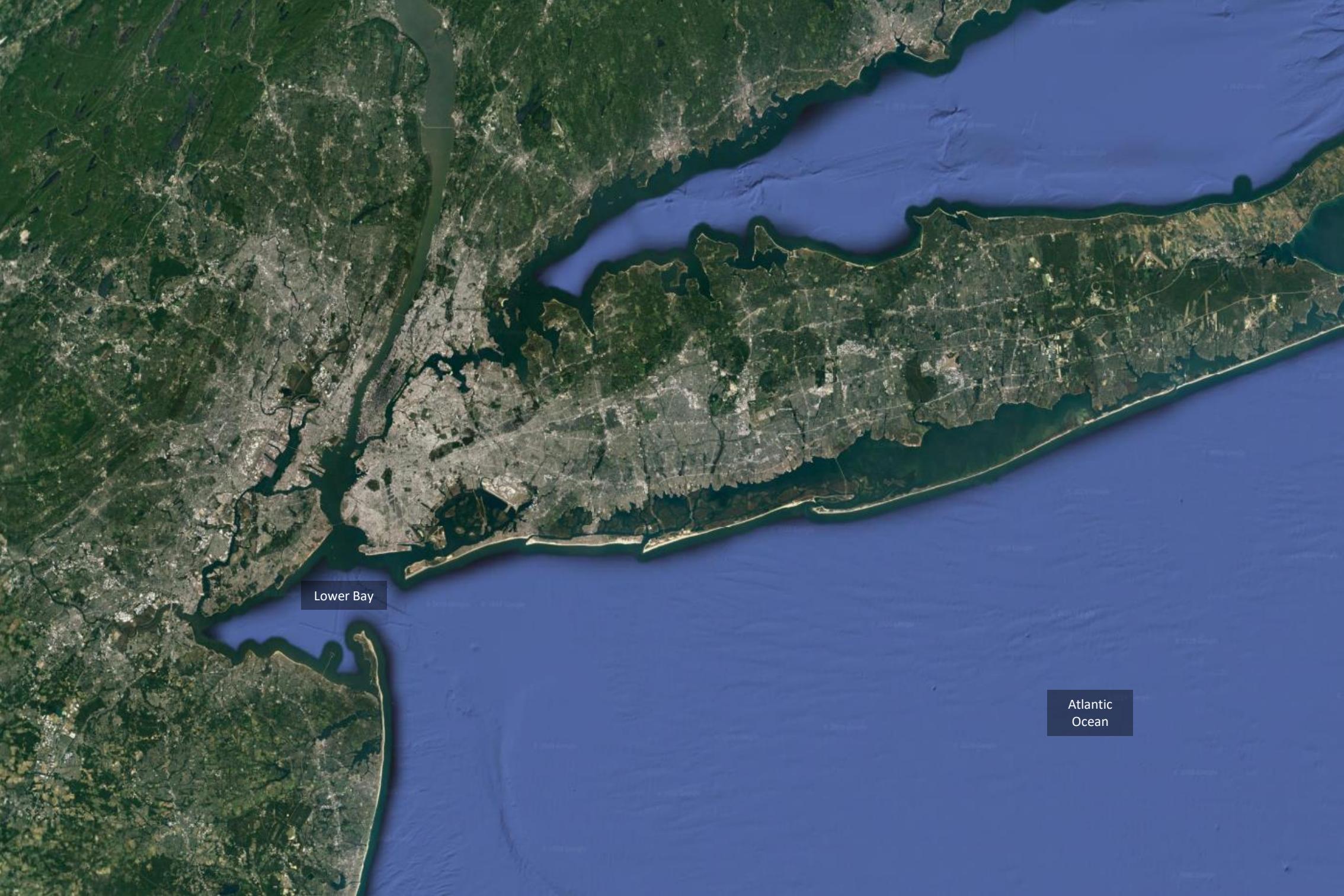
CANADA

UNITED STATES

New York

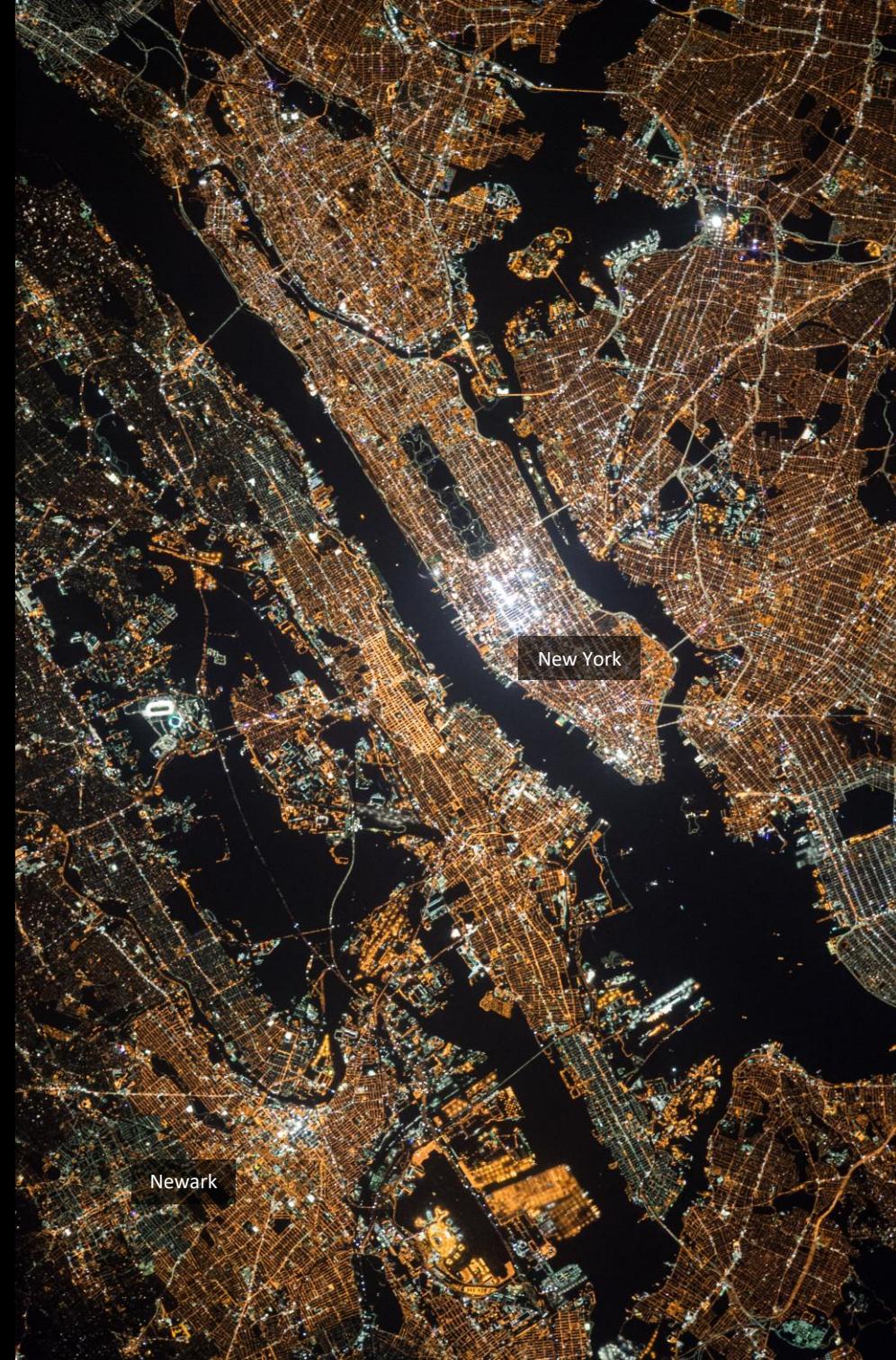
ATLANTIC
OCEAN

MEXICO



Lower Bay

Atlantic
Ocean





New York (photograph by the author)



New York (photograph by the author)

Affecdinge van de Stadt Amstelredam in Nieuw Nederlands.



New York was established as Dutch settlement in 1625, being conquered by the British in 1664. In 1811 a plan was presented to guide the future urban development of the city (35 years after the declaration of independence). The focus on streets (and avenues), street-blocks and plots.

Nova Iorque foi estabelecida como uma colônia Holandesa em 1625, tendo sido conquistada pelos Britânicos em 1664. Em 1811 foi apresentado um plano para orientar o futuro desenvolvimento urbano da cidade (35 anos após a declaração de independência). O enfoque nas ruas (e avenidas), quarteirões e parcelas.

Demography

	1950	1960	1970	1980	1990	2000	2010	2020	
New York Metropolitan Area	12.3	14.2	16.2	15.6	16.1	17.8	18.4	18.8	6% of US population
New York City	7.9	7.8	7.9	7.1	7.3	8.0	8.2	8.3	

New York City is made of 5 boroughs: Bronx, Brooklyn, Manhattan, Queens and Staten Island

In the overall, at the two scales, there has been a growth of population from 1950 to 2020.

Between 1980 and 2020 there has been a growth for the two scales.

Between 1950 and 1980, the processes have been different.

It has been more continuous at the metropolitan area (the 1970s were the exception) and more discontinuous at the city.

No geral, nas duas escalas, houve um crescimento populacional entre 1950 e 2020.

Entre 1980 e 2020 houve um crescimento às duas escalas.

Entre 1950 e 1980, os processos foram diferentes.

O processo tem sido mais contínuo na região metropolitana (os anos 1970 foram a exceção) e mais descontínuo na cidade.

NEW YORK CITY

Population – 8.336.817

Demographic composition by gender

Female – 52 %

Male – 48 %

Demographic composition by age

Under 18 years – 20,9 %

Working-age population – 65,0 %

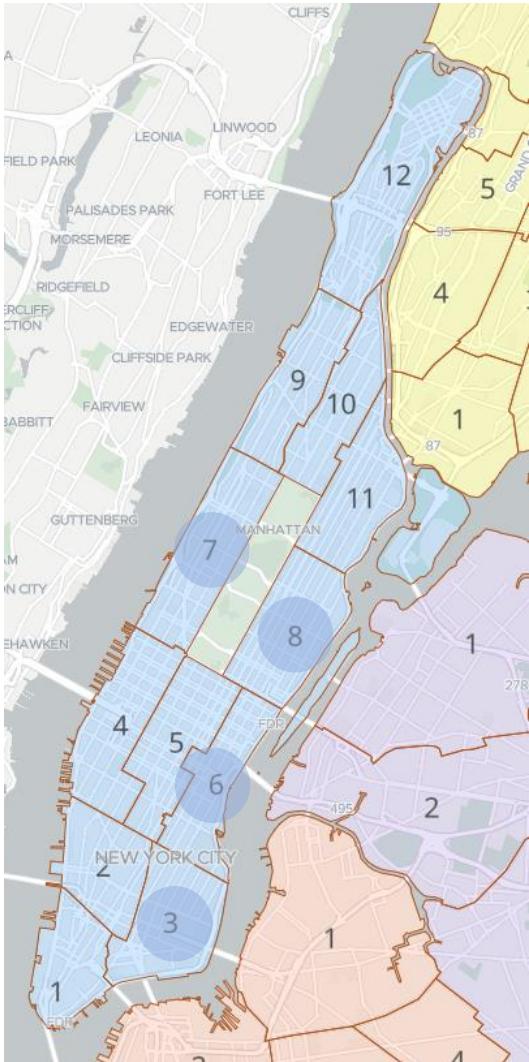
65 and over – 14,1 %

Households/families – 3.154.000

Persons/household – 2,62



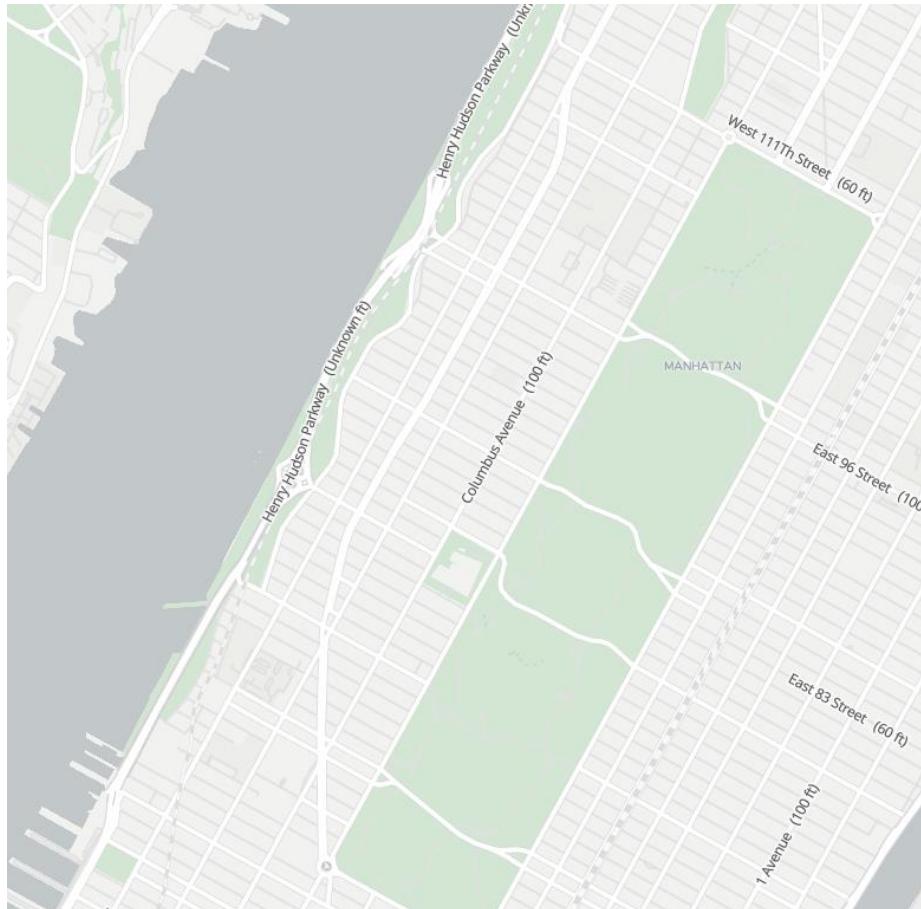
BOROUGH (number of districts)	POPULATION (2019)	AREA Km ²	POPULATION DENSITY
Bronx (12)	1.418.207	109,04	13.006
Brooklyn (18)	2.559.903	185,18	13.834
Manhattan (12)	1.628.706	59,13	27.544
Queens (14)	2.253.858	281,09	8.018
Staten Island (3)	476.143	151,51	3.143
NEW YORK CITY (59)	8.336.817	783,83	10.636



MANHATTAN DISTRICTS	POPULATION (2010)	AREA Km²	POPULATION DENSITY
1. Battery Park City, Civic Center...	60.978	3.88	15.715
2. Greenwich Village, Hudson Square...	90.016	3.63	24.797
3. Chinatown, East Village...	163.277	4.40	37.108
4. Chelsea, Clinton, Hudson Yards...	103.245	4.66	22.155
5. Flatiron, Gramercy Park, Herald Square...	51.673	4.14	12.481
6. Beekman Place, Gramercy Park...	142.745	3.63	39.232
7. Lincoln Square, Manhattan Valley...	209.084	4.92	42.496
8. Carnegie Hill, Lenox Hill	219.920	5.18	42.455
9. Hamilton Heights, Manhattanville...	110.193	3.88	28.400
10. Central Harlem	115.723	3.63	31.880
11. East Harlem, Harlem...	120.511	6.22	19.375
12. Inwood, Washington Heights	190.020	7.25	26.210

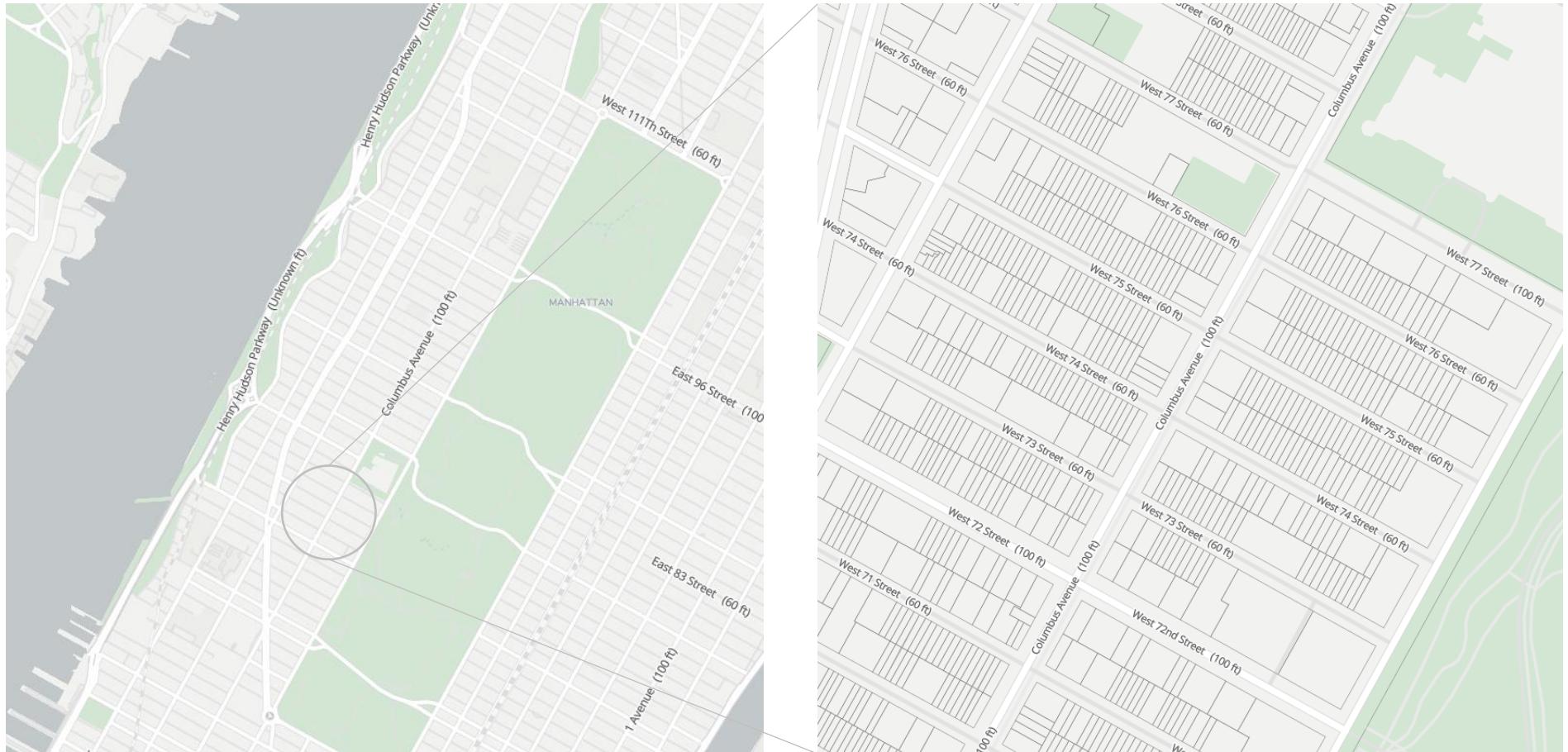
Manhattan Community District 7 - Lincoln Square, Manhattan Valley, Upper West Side

Population density: 42.496 res/km²



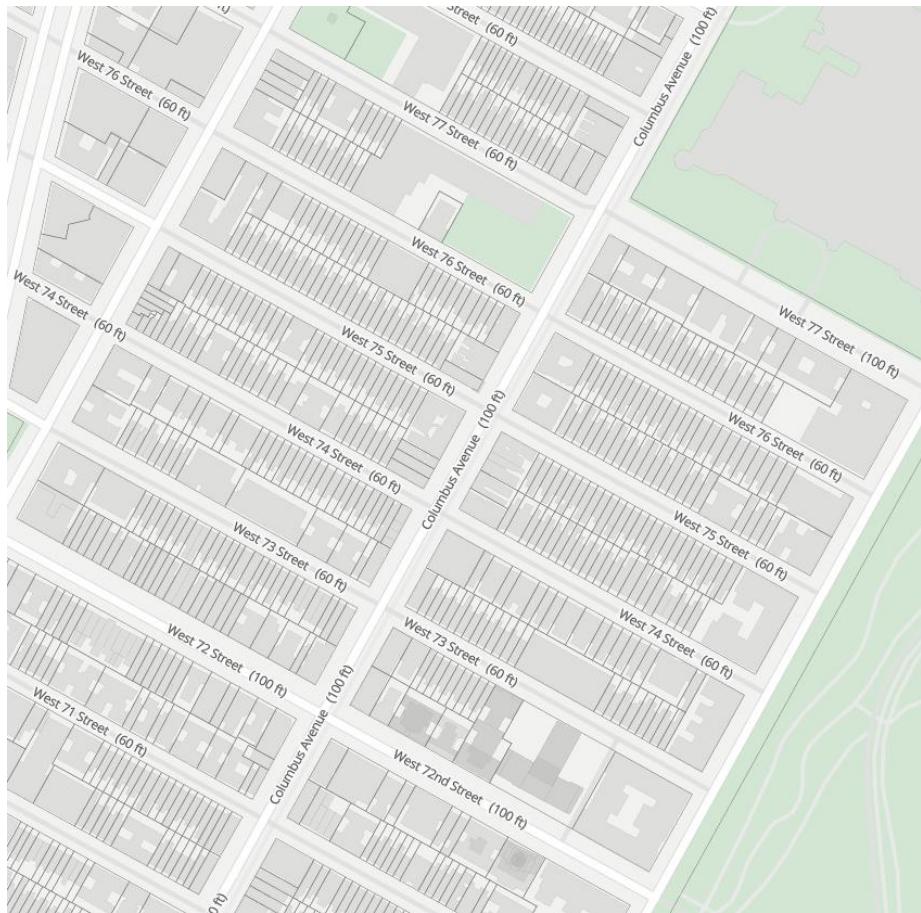
Streets, street-blocks and plots; street view (NYC Planning, photograph by the author)

Manhattan Community District 7



Streets, street-blocks and plots (NYC Planning)

Manhattan Community District 7



Streets, street-blocks, plots and the block-plans of buildings (NYC Planning)

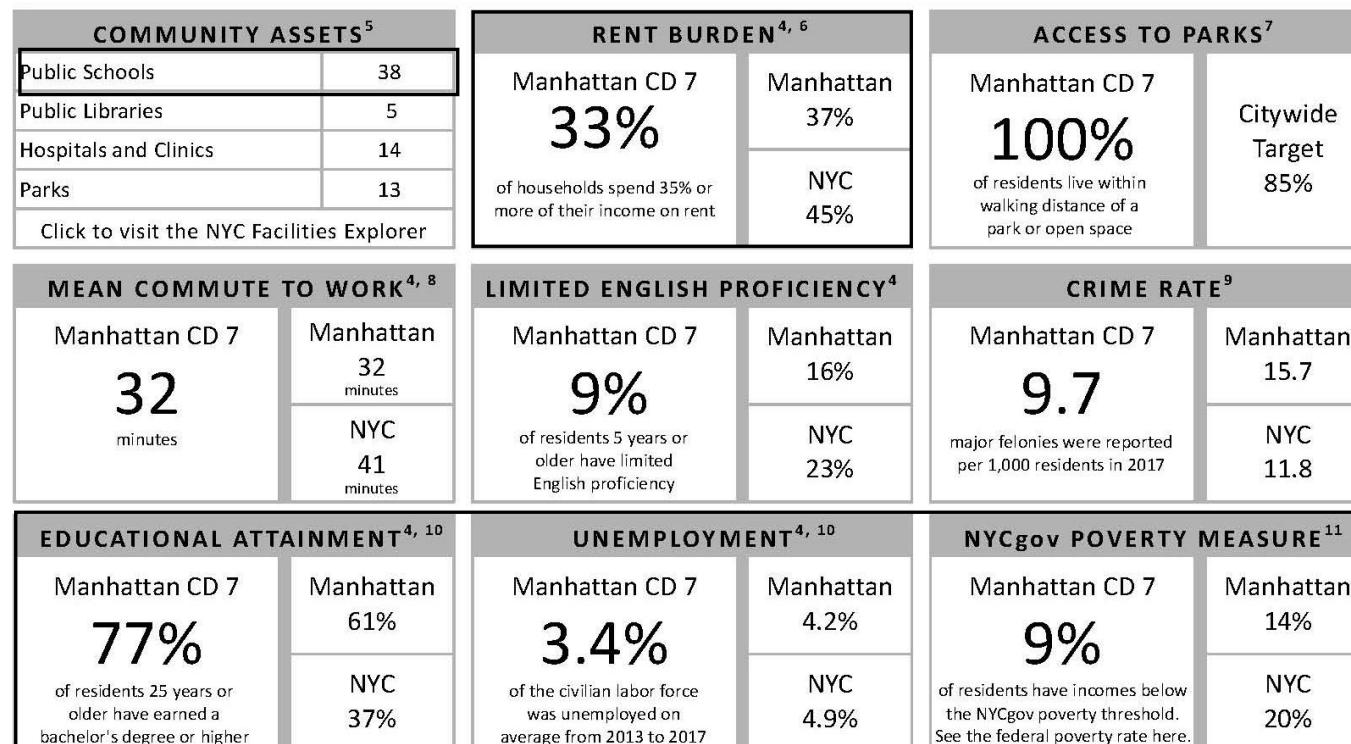
Manhattan Community District 7

The most pressing issues (identified by Manhattan Community Board 7):

- i. affordable housing
- ii. schools
- iii. social services

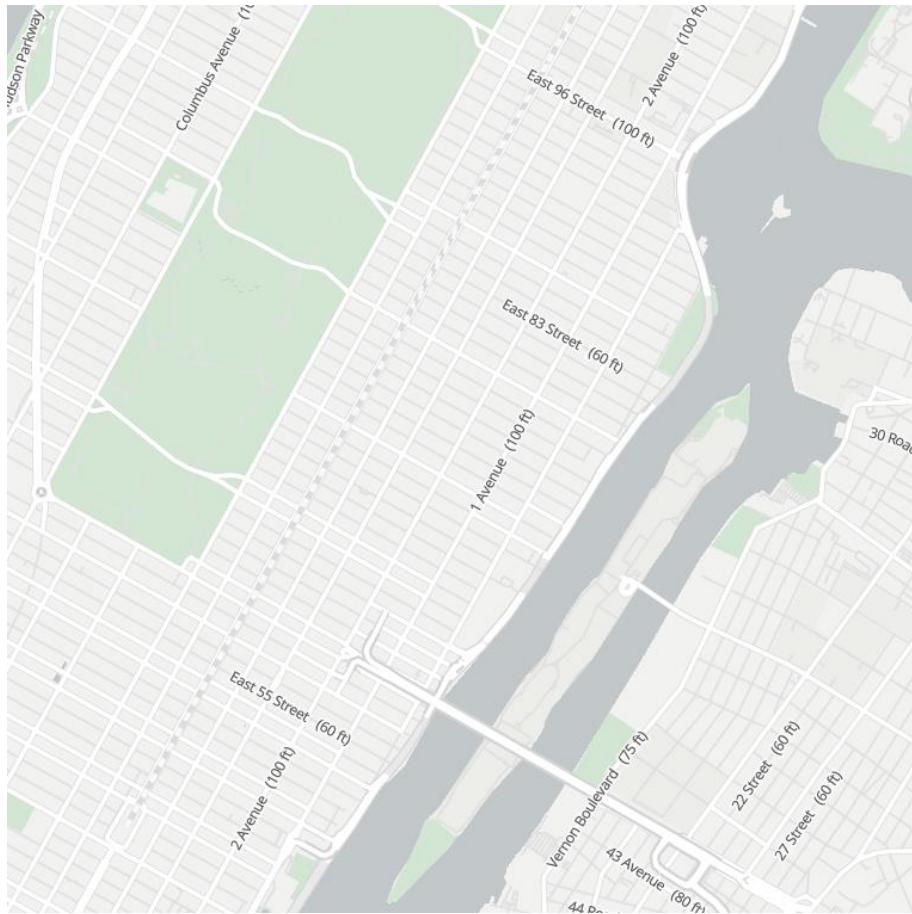
As questões mais urgentes (identificadas pelo Manhattan Community Board 7):

- i. habitação a preços acessíveis
- ii. escolas
- iii. serviços sociais



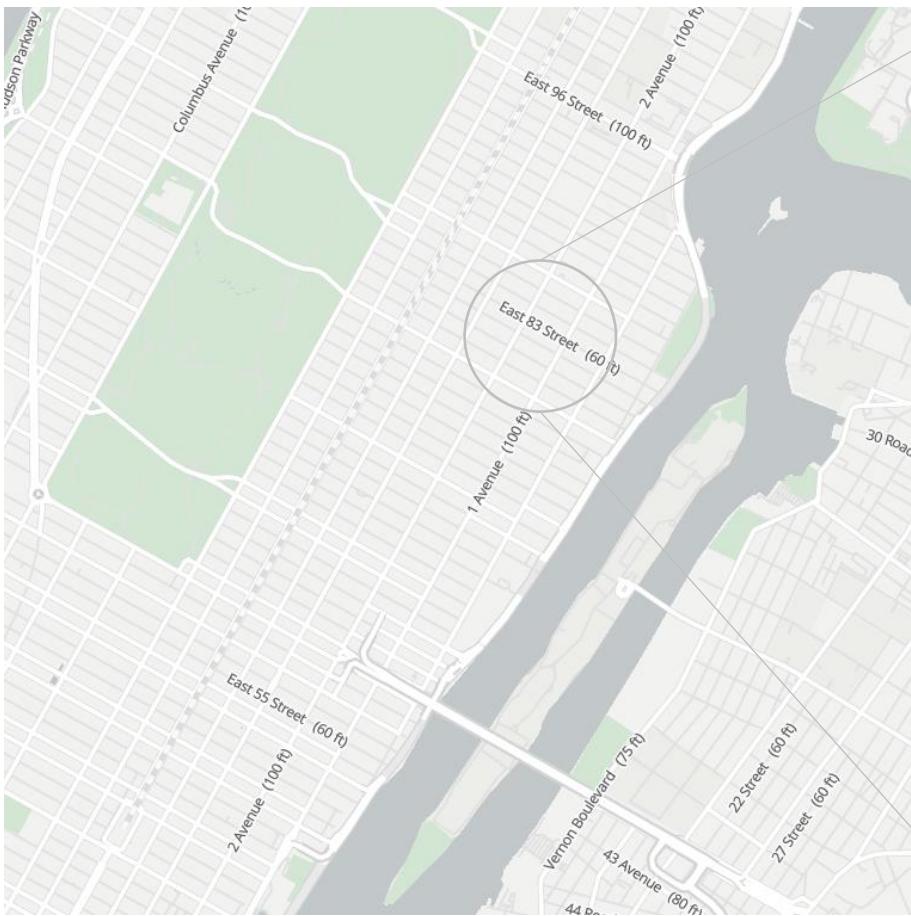
Manhattan Community District 8 - Carnegie Hill, Lenox Hill, Roosevelt Island, Upper East Side, Yorkville

Population density: 42.455 res/km²



Streets, street-blocks and plots; street view (NYC Planning, photograph by the author)

Manhattan Community District 8



Streets, street-blocks and plots (NYC Planning)

Manhattan Community District 8



Streets, street-blocks, plots and the block-plans of buildings (NYC Planning)

Manhattan Community District 8

The most pressing issues (identified by Manhattan Community Board 8):

- i. affordable housing
- ii. parks
- iii. schools

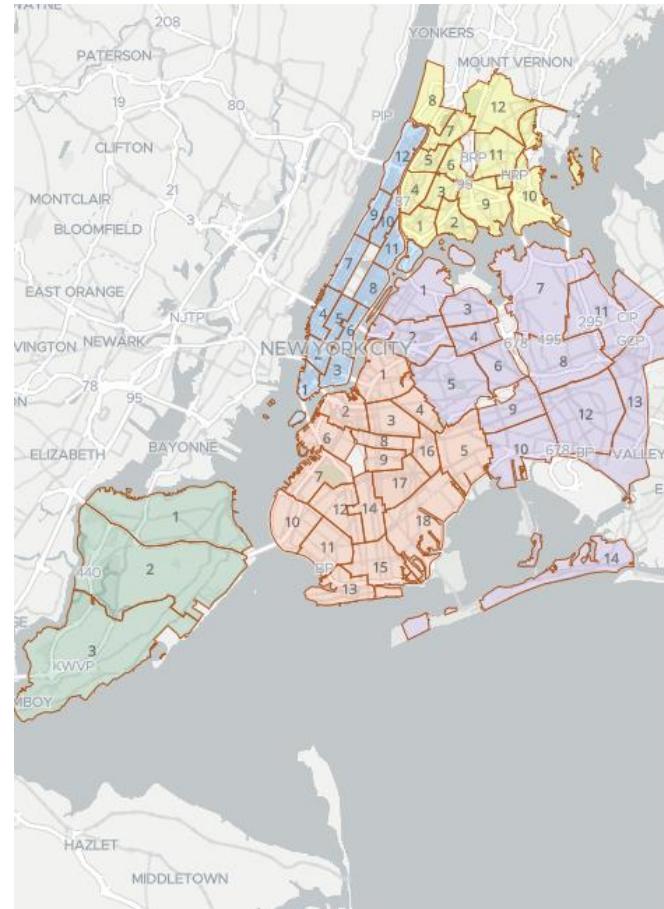
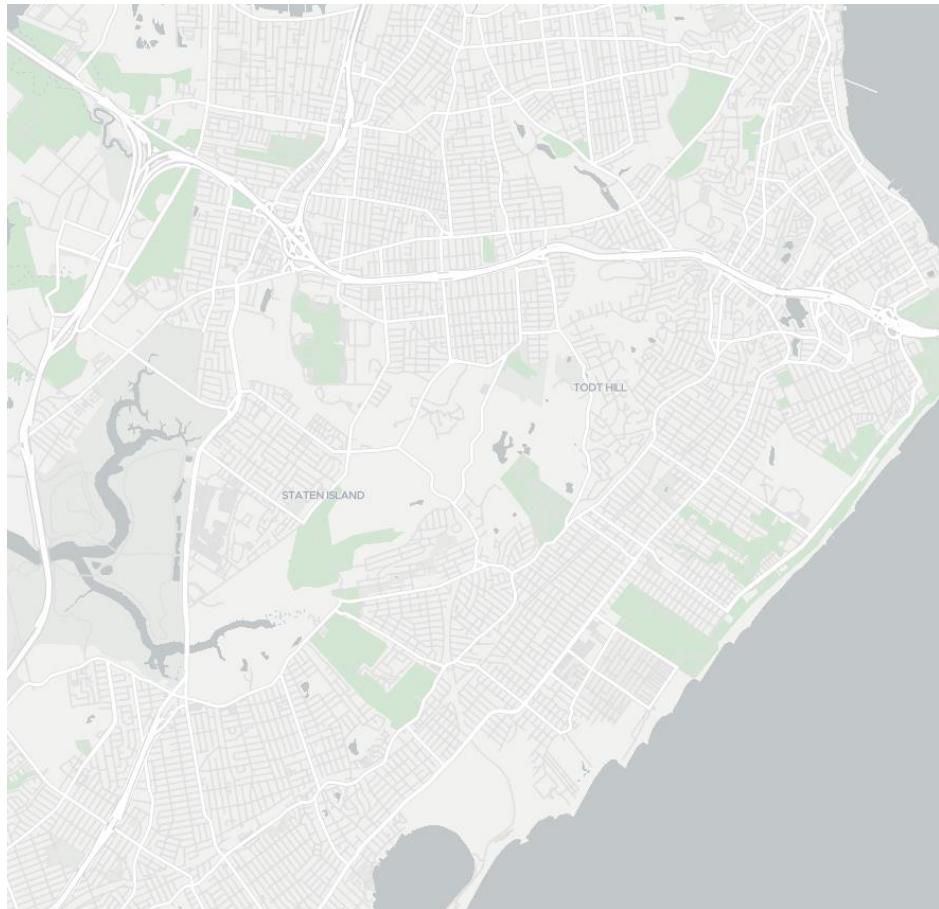
As questões mais urgentes (identificadas pelo Manhattan Community Board 8):

- i. habitação a preços acessíveis
- ii. parques
- iii. escolas

COMMUNITY ASSETS ⁵		RENT BURDEN ^{4, 6}		ACCESS TO PARKS ⁷	
Public Schools	25	Manhattan CD 8	33%	Manhattan CD 8	95%
Public Libraries	5	of households spend 35% or more of their income on rent		Citywide Target	85%
Hospitals and Clinics	38	Manhattan	37%		
Parks	23	NYC	45%		
Click to visit the NYC Facilities Explorer					
MEAN COMMUTE TO WORK ^{4, 8}		LIMITED ENGLISH PROFICIENCY ⁴		CRIME RATE ⁹	
Manhattan CD 8	31 minutes	Manhattan CD 8	6%	Manhattan CD 8	8.8
		of residents 5 years or older have limited English proficiency		major felonies were reported per 1,000 residents in 2017	
NYC	41 minutes	Manhattan	16%	NYC	11.8
		NYC	23%		
EDUCATIONAL ATTAINMENT ^{4, 10}		UNEMPLOYMENT ^{4, 10}		NYCgov POVERTY MEASURE ¹¹	
Manhattan CD 8	81% of residents 25 years or older have earned a bachelor's degree or higher	Manhattan CD 8	2.1% of the civilian labor force was unemployed on average from 2013 to 2017	Manhattan CD 8	7%
NYC	37%	Manhattan	4.2%	Manhattan	14%
		NYC	4.9%	NYC	20%
See the federal poverty rate here.					

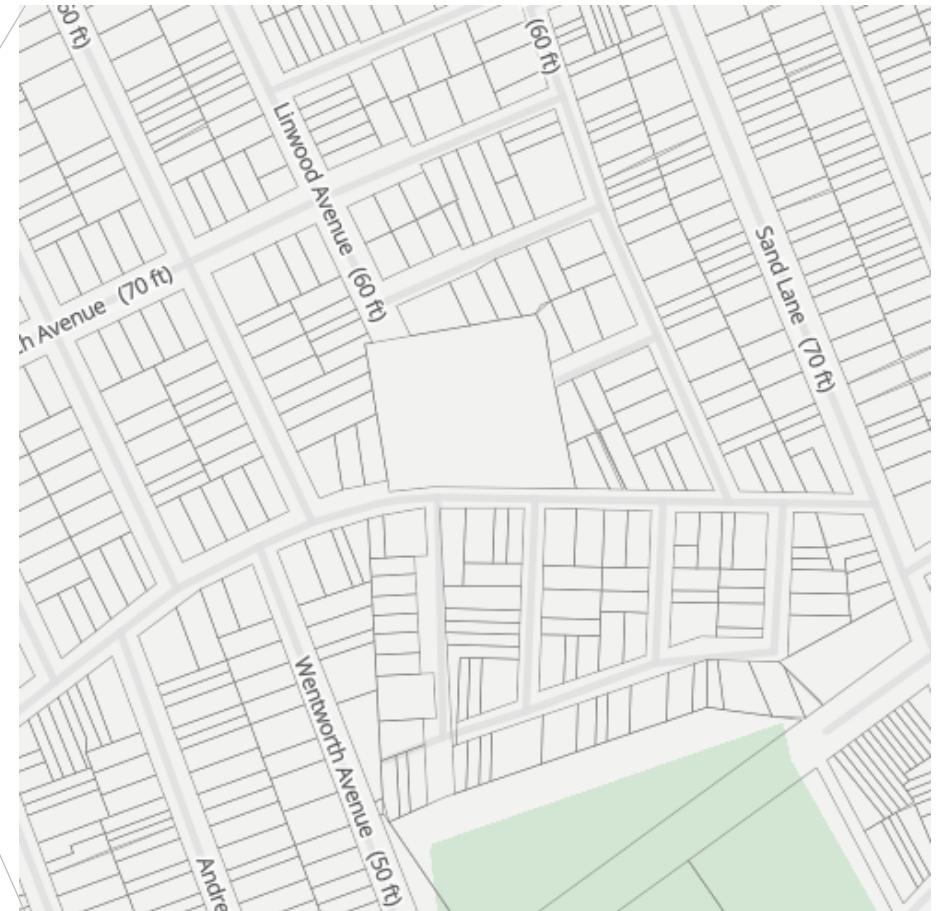
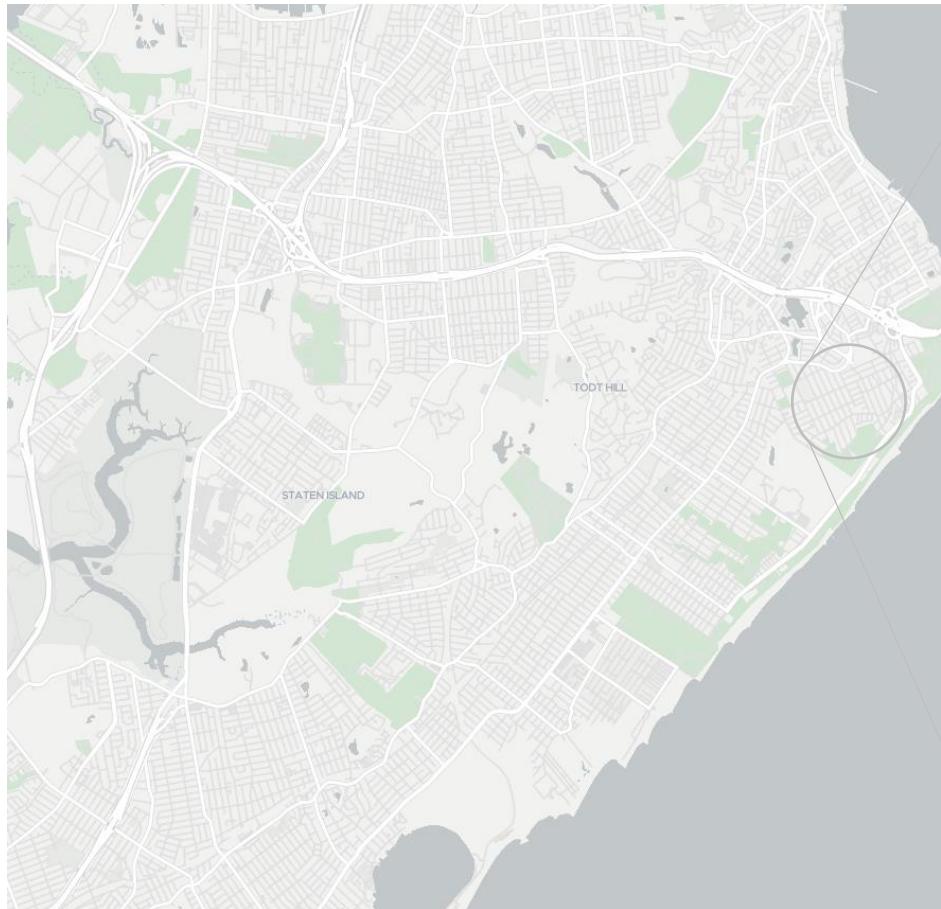
Staten Island Community District 2 – Arrochar, Bloomfield, Bulls Head...

Population density: 2.391 res/km²



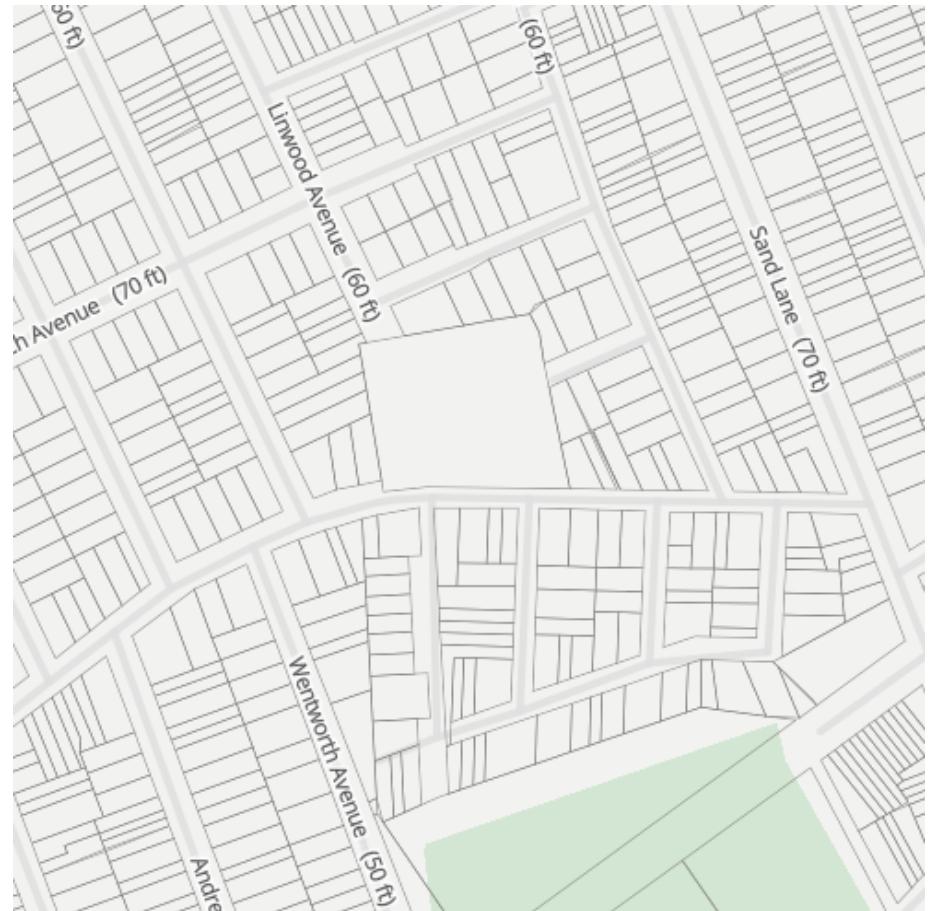
Streets, street-blocks and plots; street view (NYC Planning, photograph by the author)

Staten Island Community District 2



Streets, street-blocks and plots; street view (NYC Planning, photograph by the author)

Staten Island Community District 2



Streets, street-blocks and plots; street view (NYC Planning, photograph by the author)

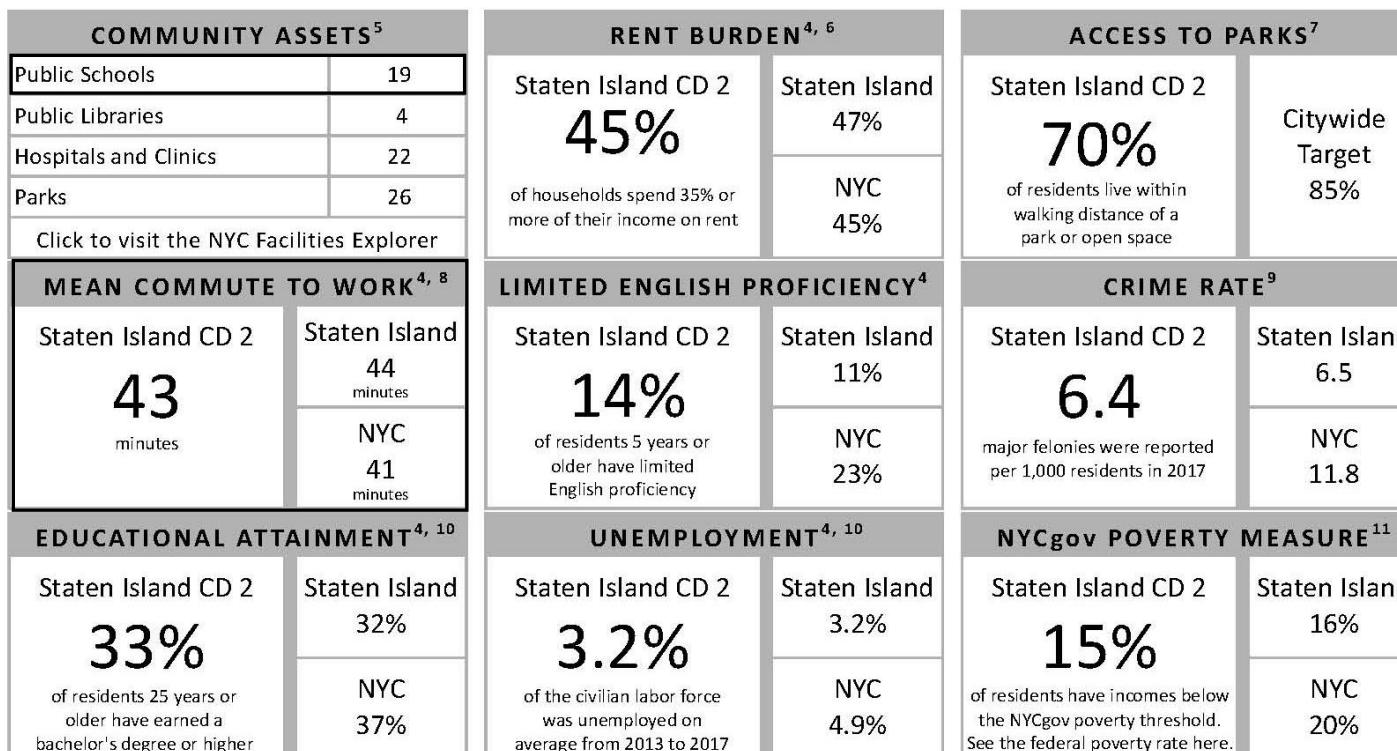
Staten Island Community District 2

The most pressing issues (identified by Staten Island Community Board 2):

- i. infrastructure resiliency
- ii. schools
- iii. traffic

As questões mais urgentes (identificadas pelo Staten Island Community Board 8):

- i. resiliência da infraestruturas
- ii. escolas
- iii. trânsito



İSTANBUL (1950-2020)

İSTAMBUL (1950-2020)



BLACK SEA

BULGARIA

GREECE

Istanbul

TURKEY

MEDITERRANEAN SEA

CYPRUS

SYRIA

GEORGIA



BLACK SEA

EUROPE

BOSPORUS

ASIA

SEA OF MARMARA



Istanbul (photograph by the author)



Istanbul (photograph by the author)



For more than 1500 years Istanbul (Constantinople) was the capital of Roman, Byzantine and Ottoman Empires. After the partition of the Ottoman Empire, in 1923, a new country was established – Turkey – and Ankara became the new capital.

The challenge of the conservation of built heritage.

Ao longo de mais de 1500 anos, Istambul (Constantinopla) foi a capital dos Impérios Romano, Bizantino e Otomano. Após a divisão do Império Otomano, em 1923, um novo país foi fundado - Turquia - e Ancara tornou-se a nova capital. O desafio da conservação do património edificado.

Demography

	1950	1960	1970	1980	1990	2000	2010	2020	
ISTANBUL	1.0	1.5	2.8	4.4	6.6	8.7	12.7	15.5	19% of Turkey population

Istanbul is made of 39 districts (municipalities) and 782 neighbourhoods.

Istanbul has been always growing since 1950, having the highest rates from the 1960s to the 1990s.

-
Istambul tem vindo sempre a crescer desde 1950, apresentando as taxas mais altas entre 1960 e 1990.

ISTANBUL (2020)

Population – 15.519.267

Area – 5343 km²

Population density – 2905 res/km²

Demographic composition by gender

Female – 50 %

Male – 50 %

Demographic composition by age

Young – 36,6 %

Adult – 52,8 %

Old – 10,6 %

ISTANBUL

Districts with more than 500.000 residents, in 2020

Esenyurt	954.579
Kuçukçekmece	792.281
Bagcılar	745.125
Pendik	711.894
Umraniye	710.280
Bahçelievler	611.059
Sultangazi	534.565
Uskudar	531.825
Maltepe	513.316



ISTANBUL (2020)

Central districts	Population	Area (km ²)	Density (res/km ²)
Fathi	443.090	16,0	27.693
Beyoglu	233.323	9,0	25.925
Besiktas	182.649	19,0	9.613
Uskudar	531.316	35,0	15.195
Kadikoy	482.713	25,0	19.308
Adalar	15.238	11,0	1.385





Hagia Sophia, Fathi (photograph by the author)



Fathi, Cankurtaran (source: Bing Maps)



Fathi, Sehsuvar Bey (photograph by the author)

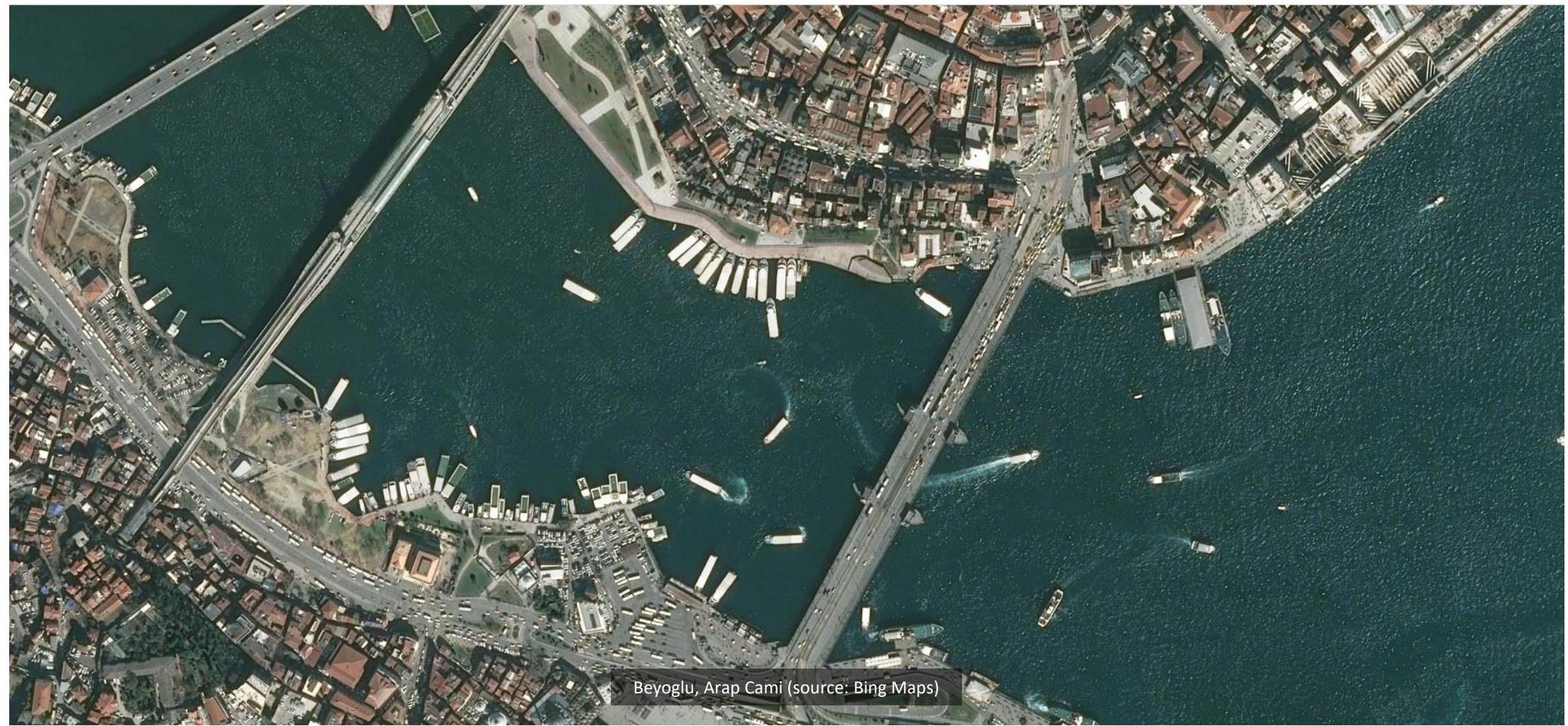


Fathi, Sehsuvar Bey (photograph by the author, Bing Maps)





Beyoglu, Arap Cami (photograph by the author)



Beyoglu, Arap Cami (source: Bing Maps)



Besiktas, Mecidiye (photograph by the author)



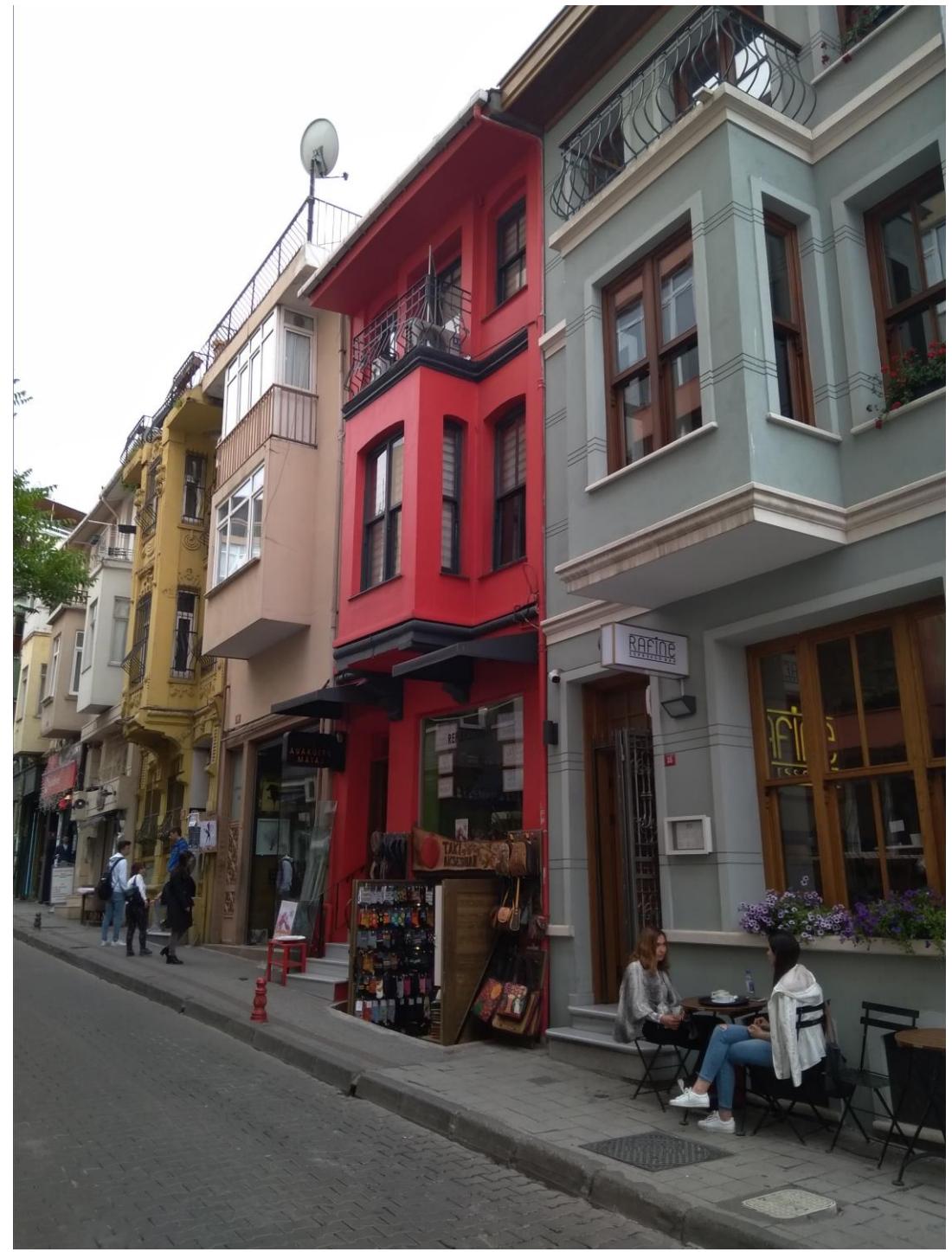
Besiktas, Mecidiye (source: Bing Maps)



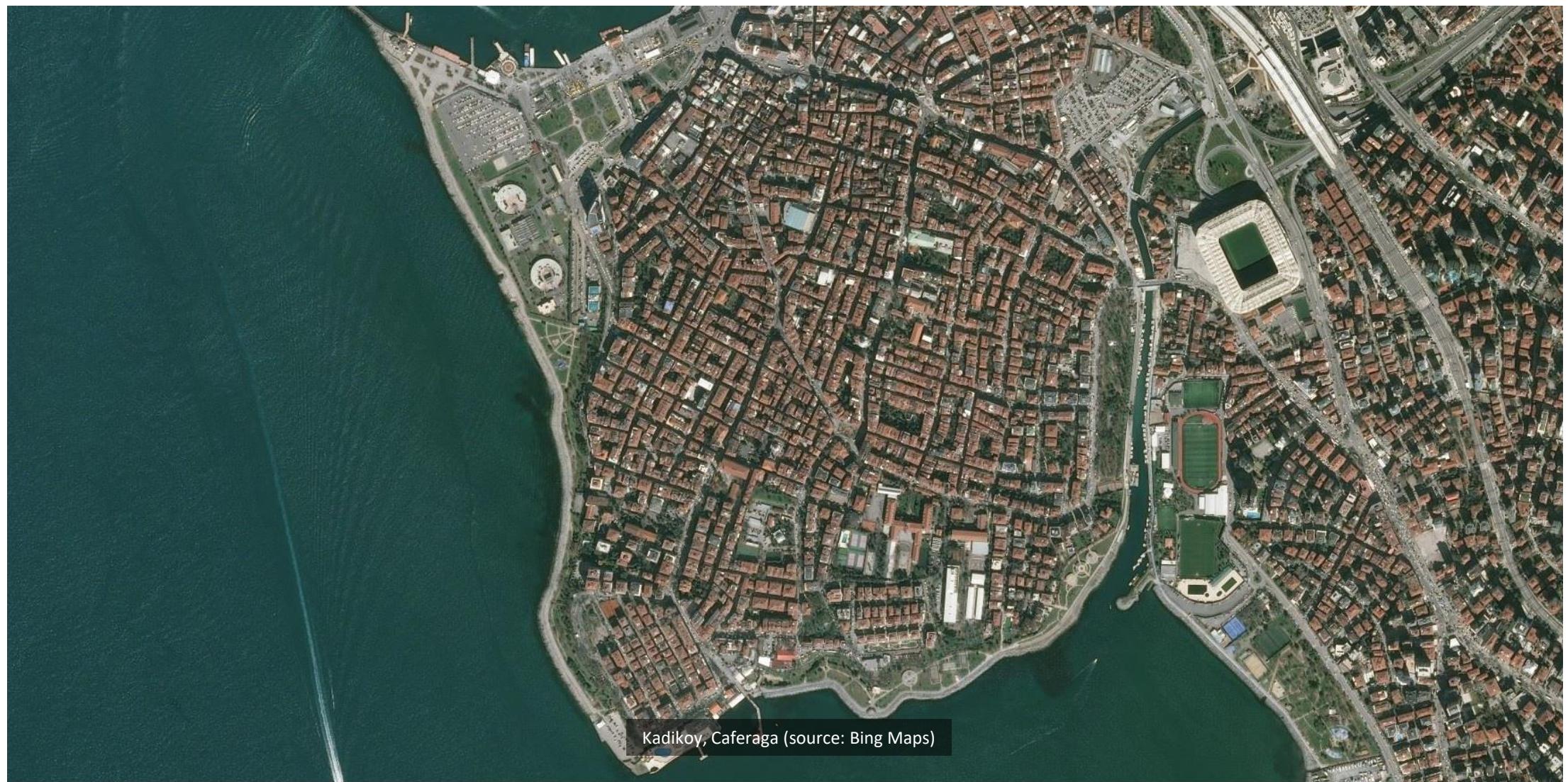
Uskudar, Mimar Sinan (photograph by the author)



Uskudar, Mimar Sinan (source. Bing Maps)



Kadikoy, Caferaga (photograph by the author)



Kadikoy, Caferaga (source: Bing Maps)



Adalar – Princes Islands (photograph by the author)



Adalar – Princes Islands (source: Bing Maps)