

Housing And Transformation @ Kolkata

ARCHITECTS

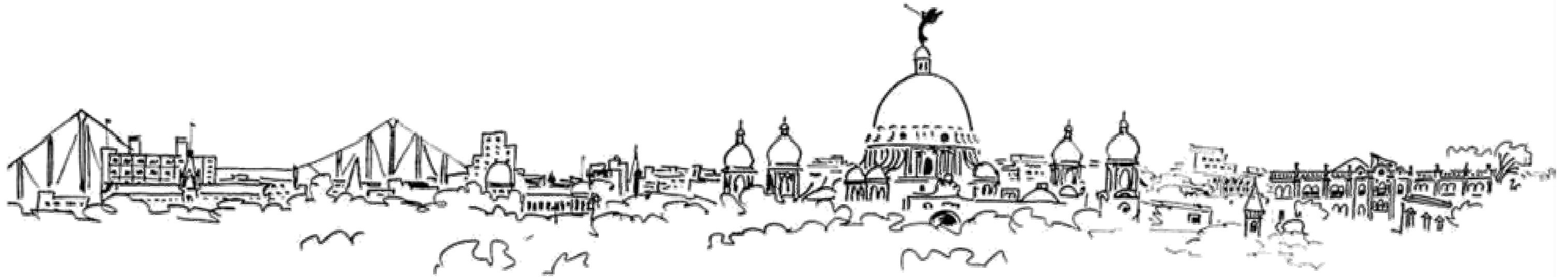
URBAN DESIGNERS PLANNERS



GLOBAL LOCATION OF THE TWO COUNTRIES



LOCATION of KOLKATA IN INDIA



INDIA

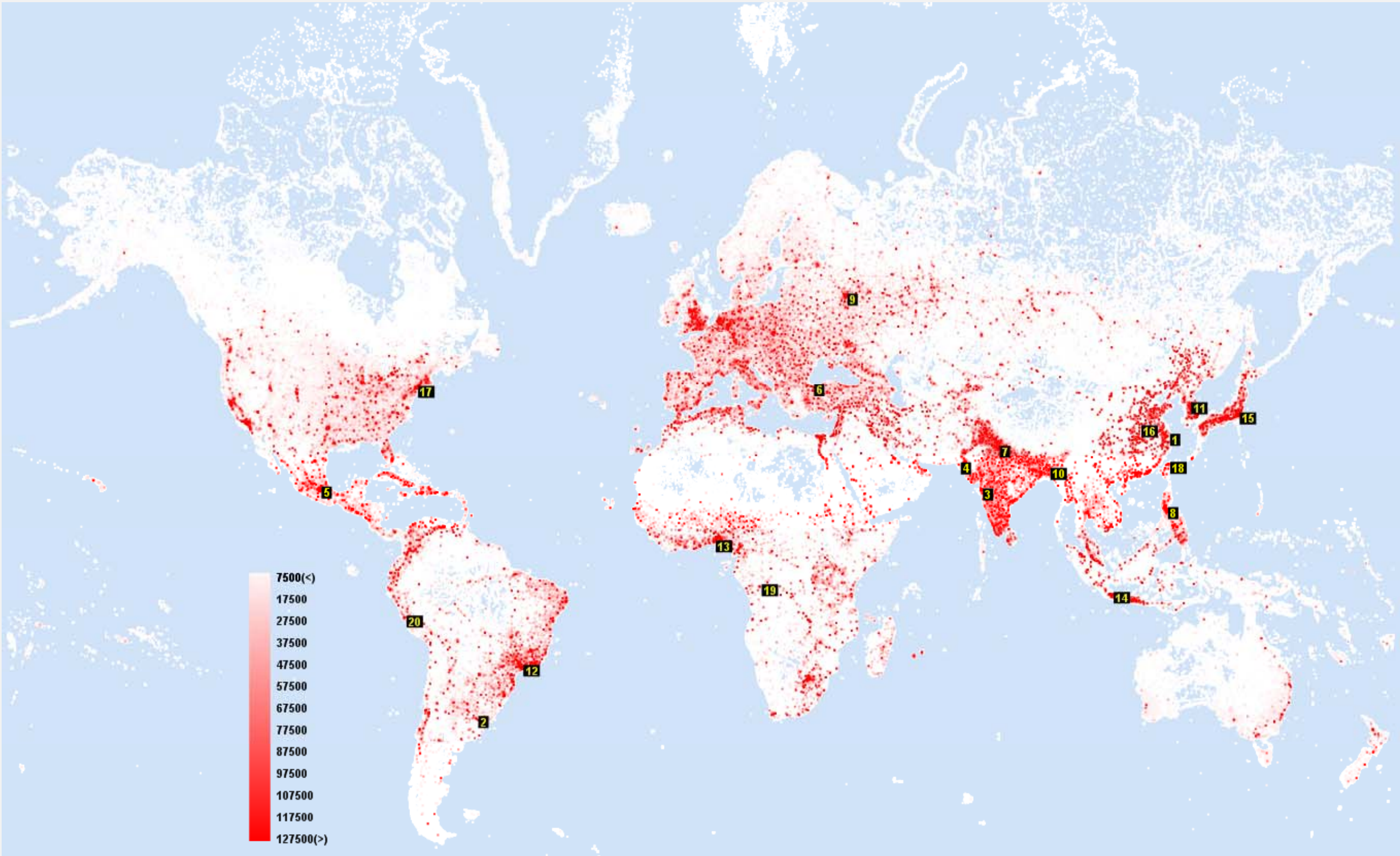


WEST BENGAL

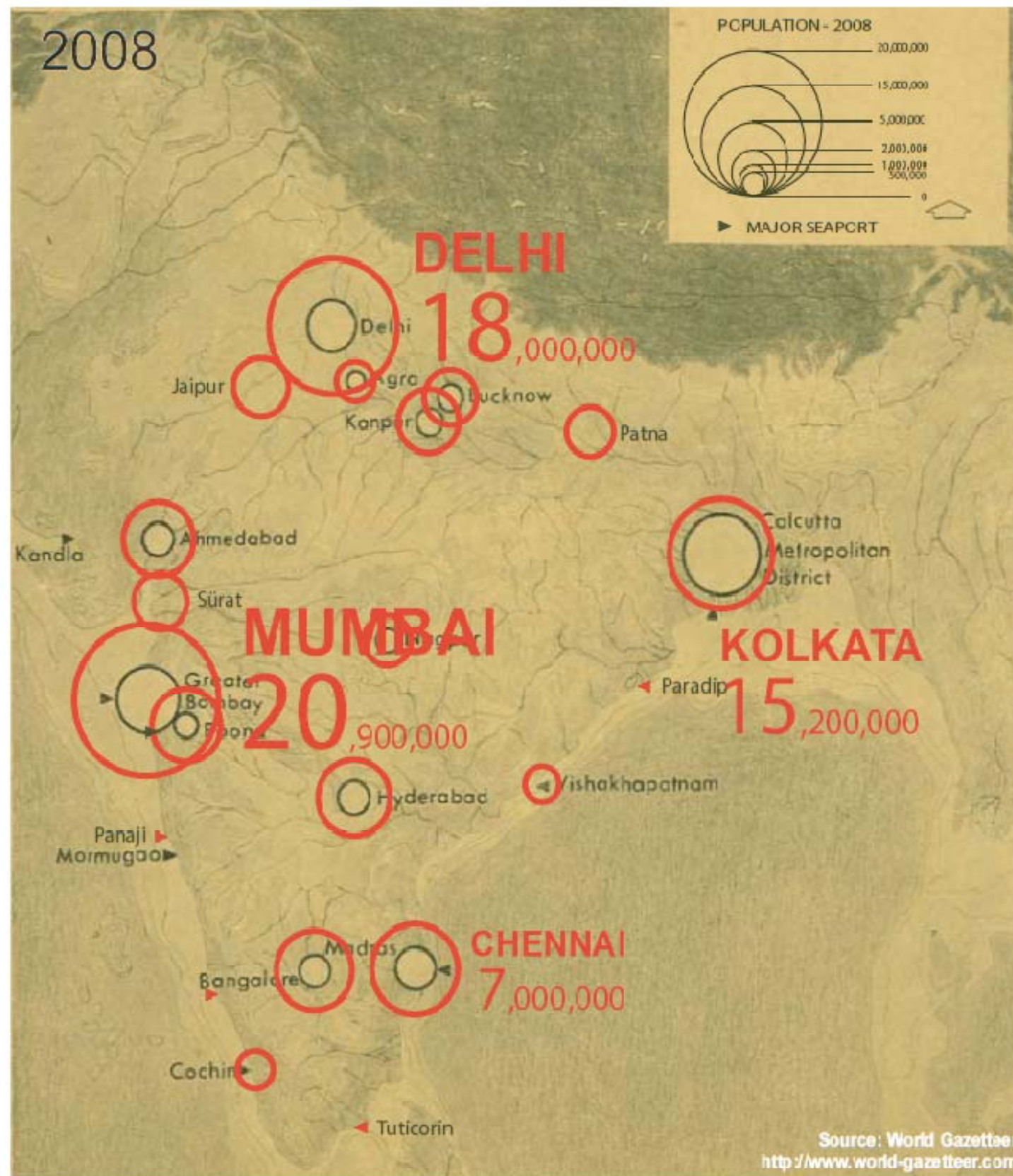


KOLKATA

Population Density Map



Demographics



Others include Sikhs, Buddhists & Other religions (0.19%)

Religion in Kolkata^[95]

Religion	Percent
Hinduism	77.68%
Islam	20.27%
Christian	0.88%
Jain	0.46%
Others	0.71%

Kolkata urban agglomeration population growth

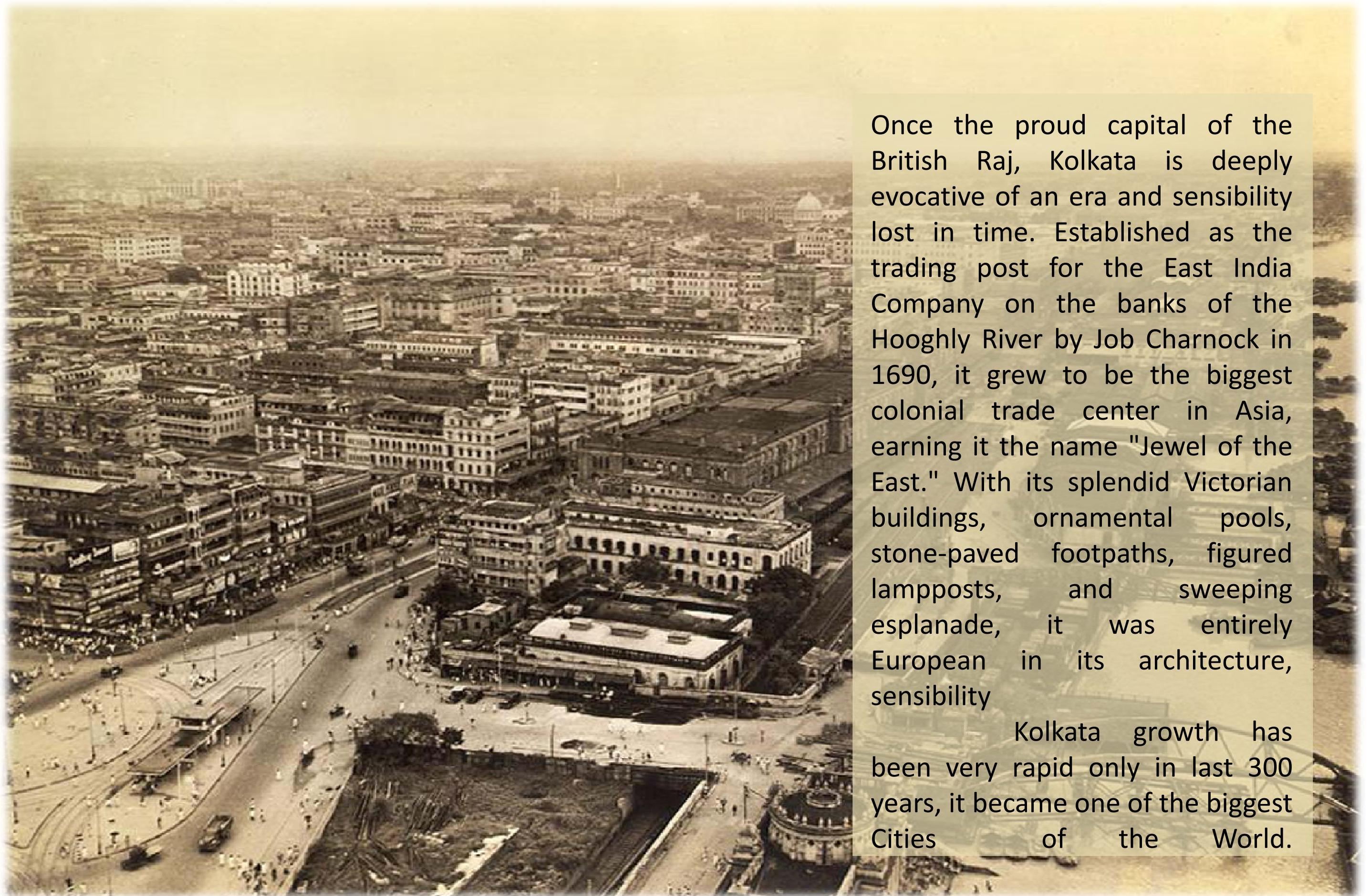
Census	Total	%±
1981	9,194,000	—
1991	11,021,900	19.9%
2001	13,114,700	19.0%
2011	14,112,536	7.6%

Source: Census of India^[5]

Population in India _ estimation 2008

Kolkata has the **slowest growth rate** amongst all major cities of India. However, **population growth** is always referred to as **Kolkata's main issue**. This apparent contradiction needs to be answered by taking in consideration the **time factor**. In Kolkata's case, population growth cannot be analysed as an absolute value.

HISTORY

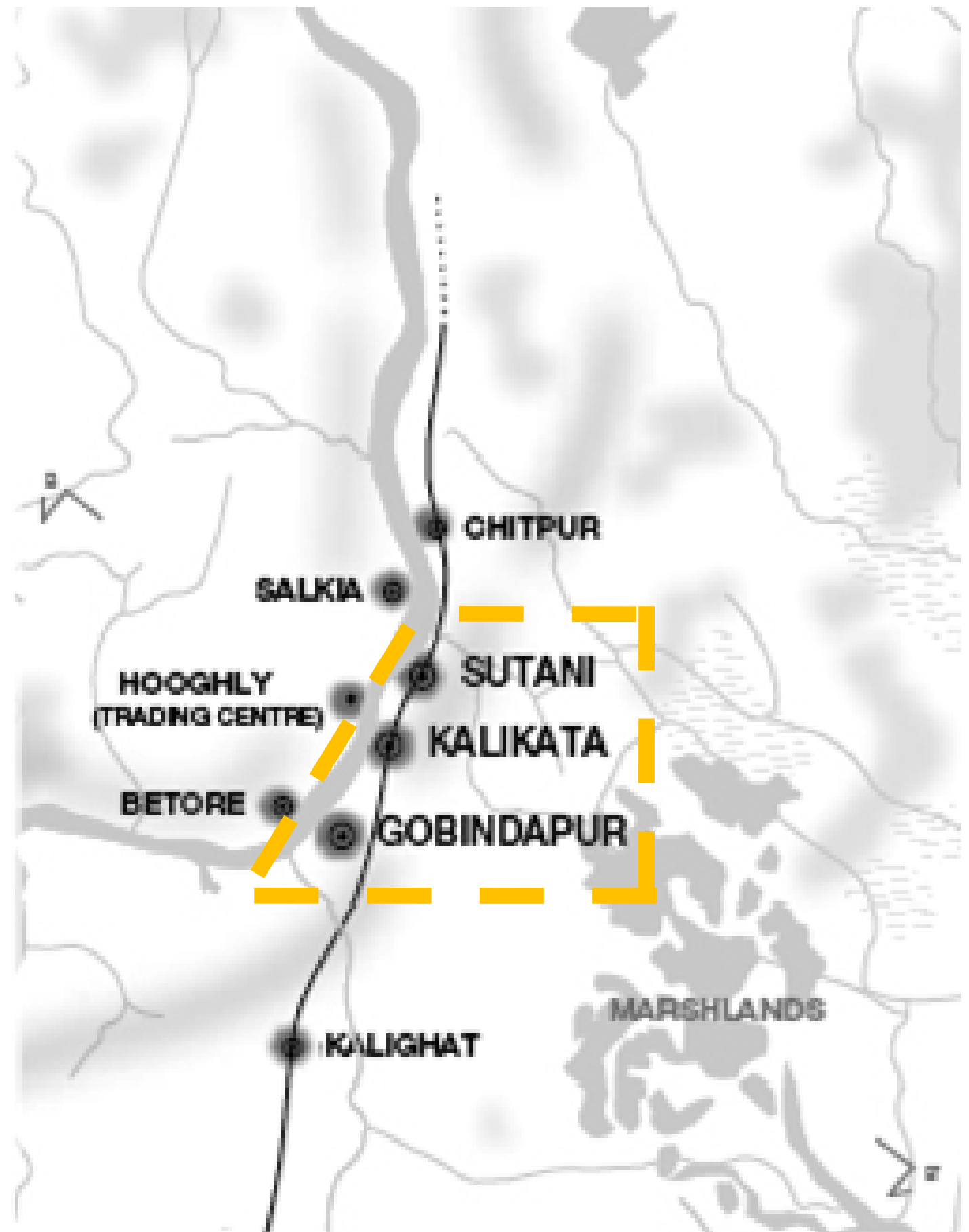


Once the proud capital of the British Raj, Kolkata is deeply evocative of an era and sensibility lost in time. Established as the trading post for the East India Company on the banks of the Hooghly River by Job Charnock in 1690, it grew to be the biggest colonial trade center in Asia, earning it the name "Jewel of the East." With its splendid Victorian buildings, ornamental pools, stone-paved footpaths, figured lampposts, and sweeping esplanade, it was entirely European in its architecture, sensibility

Kolkata growth has been very rapid only in last 300 years, it became one of the biggest Cities of the World.

ORIGIN of KOLKATA

- In 1690, Job Charnok, an agent of the East India Company chose this place for a British trade settlement.
- The site was carefully selected, being protected by the Hooghly River on the west, a creek to the north, and by salt lakes about two and a half miles to the east.
- There were three large villages along the east bank of the river Ganges, named, Sutanuti, Gobindapur and Kalikata. These three villages were bought by the British from the local land lords. The Mughal emperor granted East India Company freedom of trade in return for a yearly payment of 3,000 rupees.
- In 1772, Calcutta became the capital of British India, till 1912, Calcutta was the capital of India, when the British moved the capital city to Delhi in 1947, when India gained freedom
- Calcutta became the capital city of the state of West Bengal.



PAST



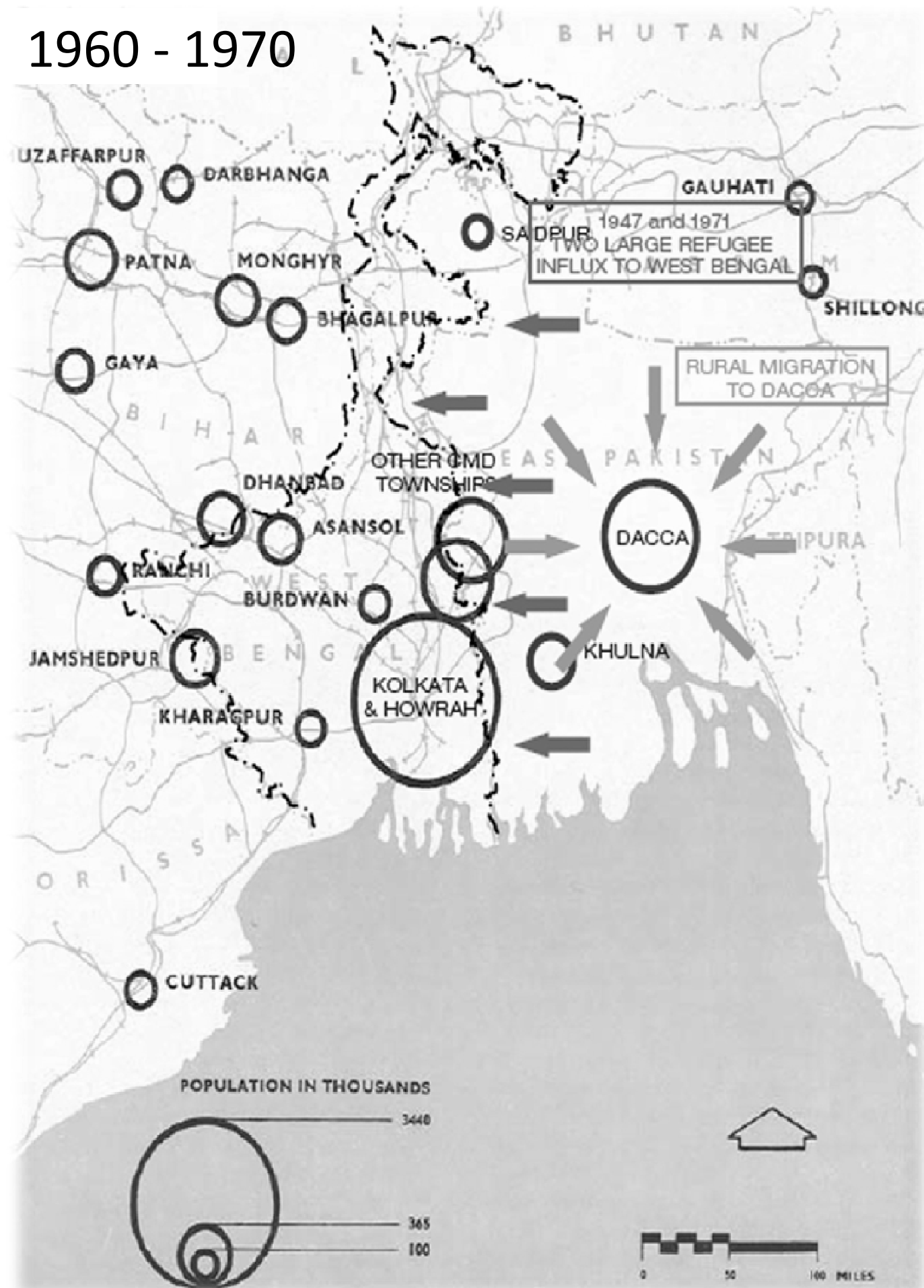
GROWTH OF KOLKATA

GROWTH

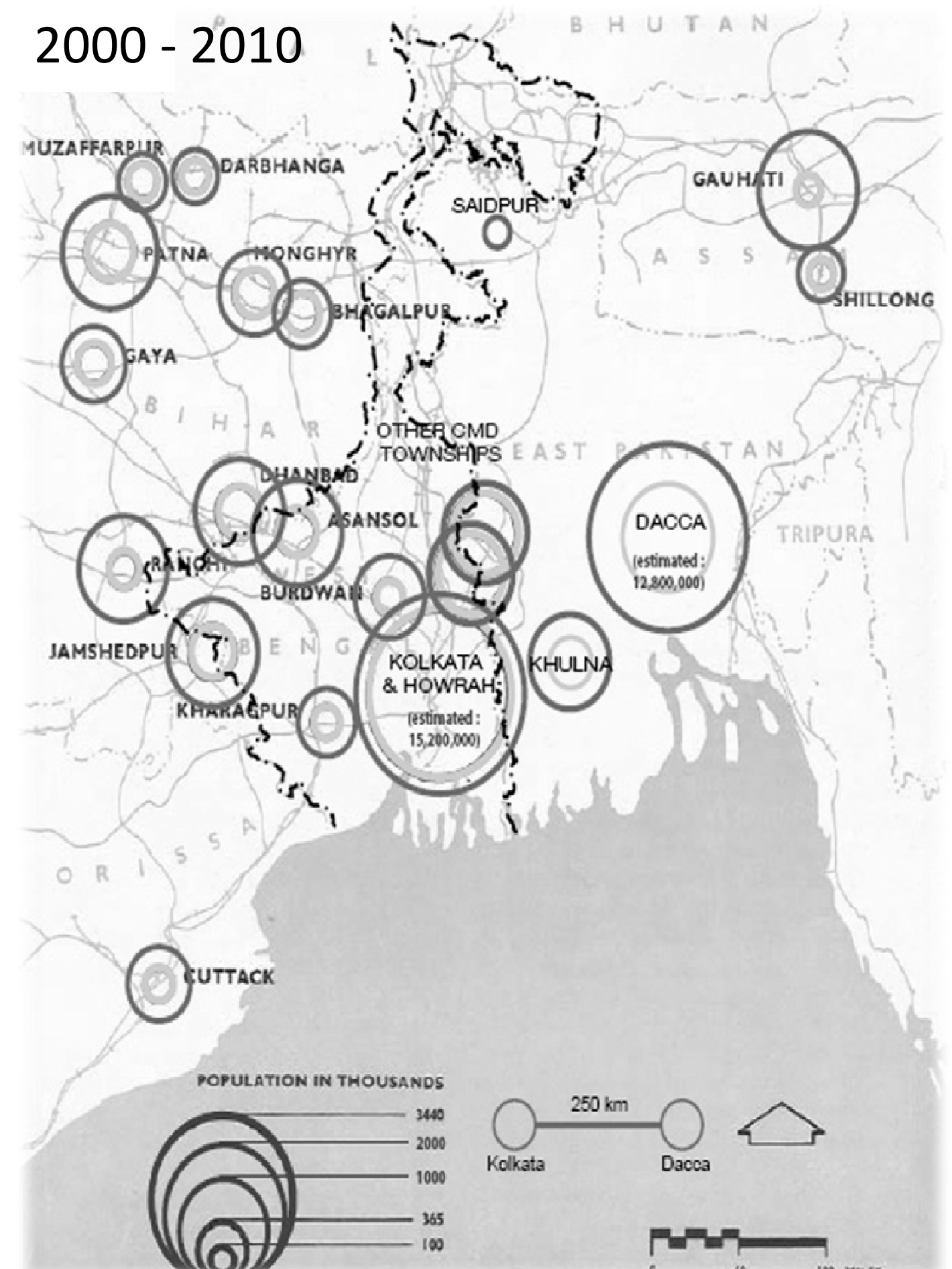
1960-

2010

1960 - 1970



2000 - 2010



POPULATION

1960 / 6 millions / WORLD 11th
2012 / 15 millions / WORLD 9th

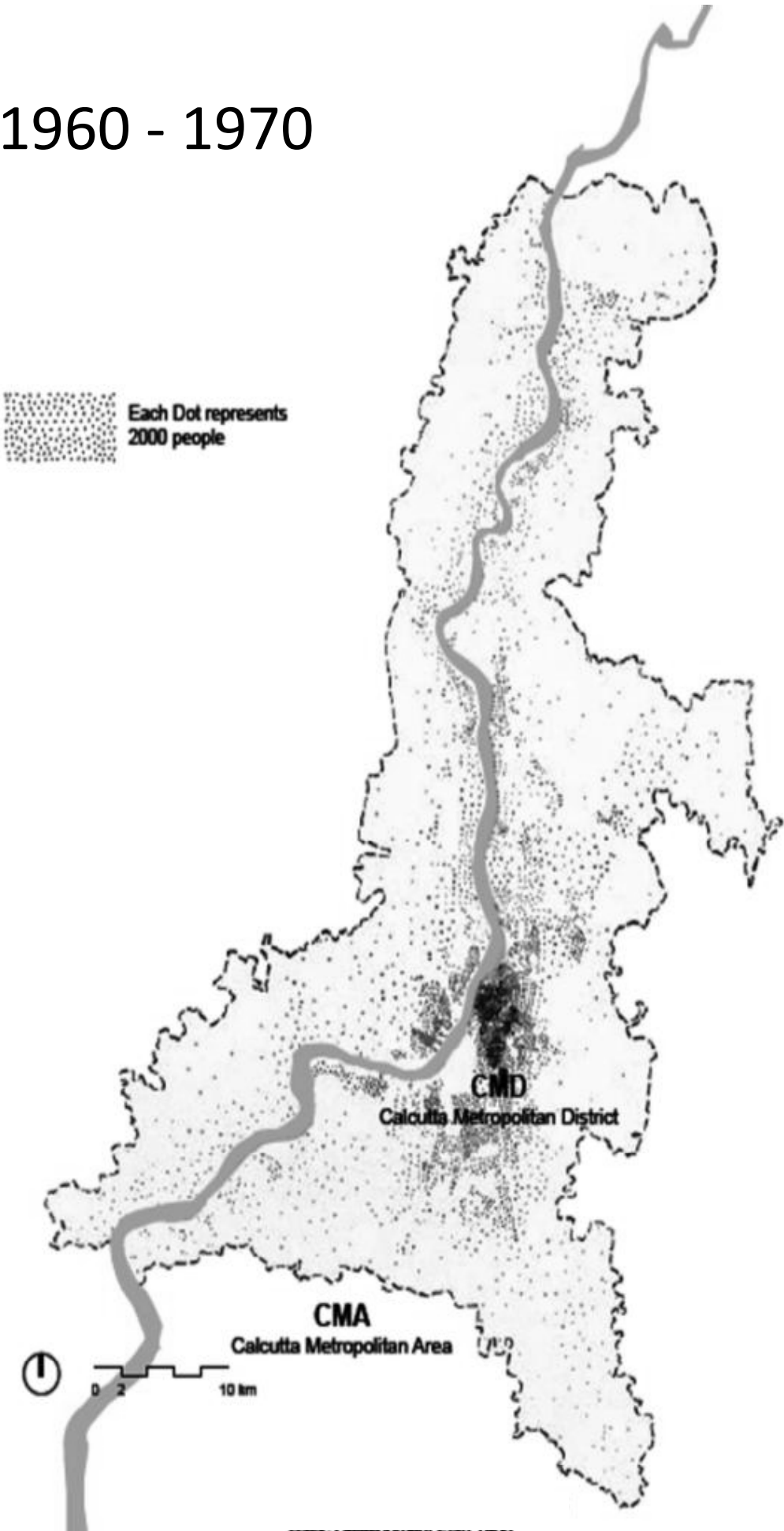


POPULATION DENSITY

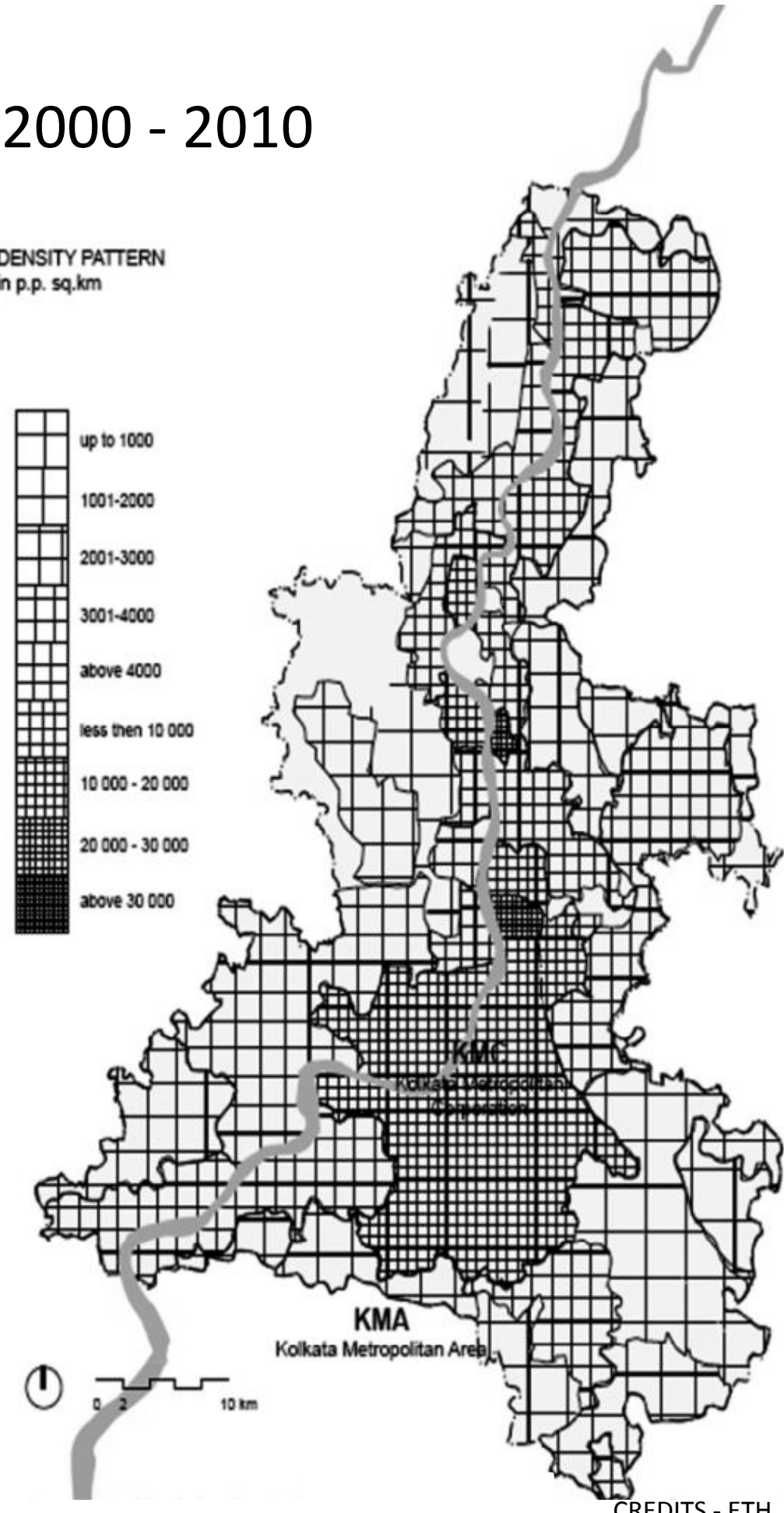
1960-

2010

1960 - 1970



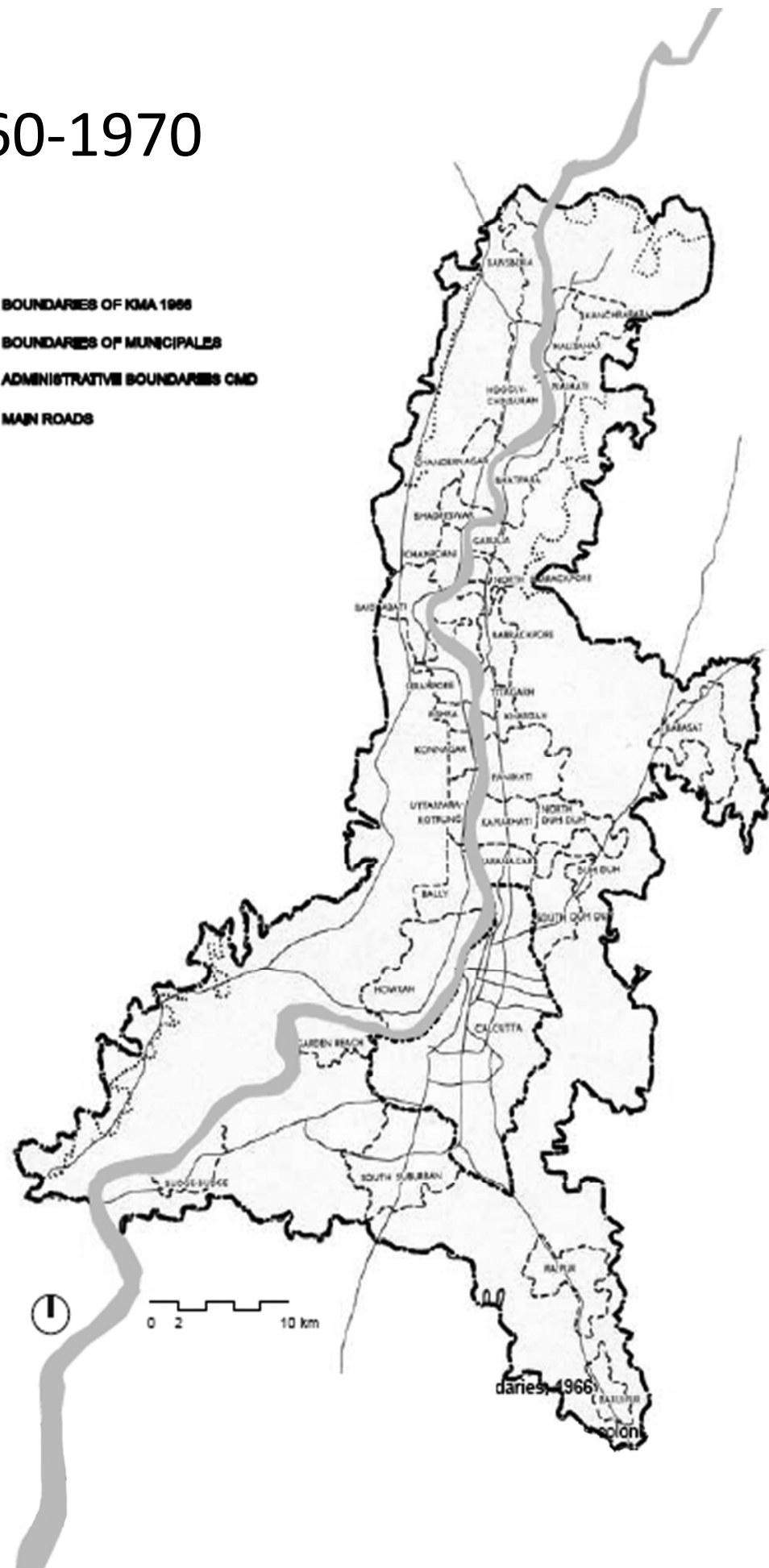
2000 - 2010



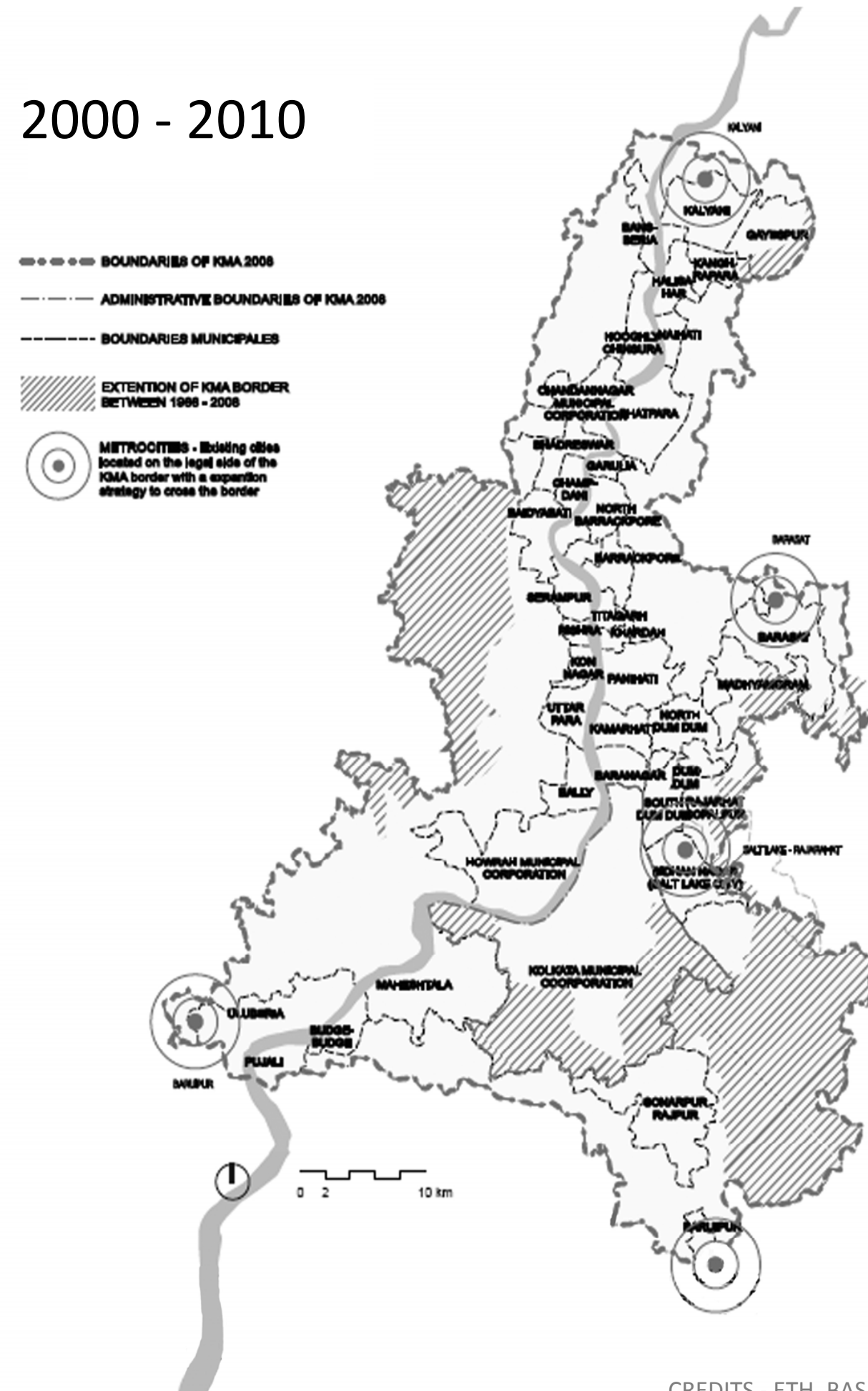
2010

1960-

- - - - - BOUNDARIES OF KMA 1998
 - - - - - BOUNDARIES OF MUNICIPALES
 - - - - - ADMINISTRATIVE BOUNDARIES CMO
 - - - - - MAIN ROADS



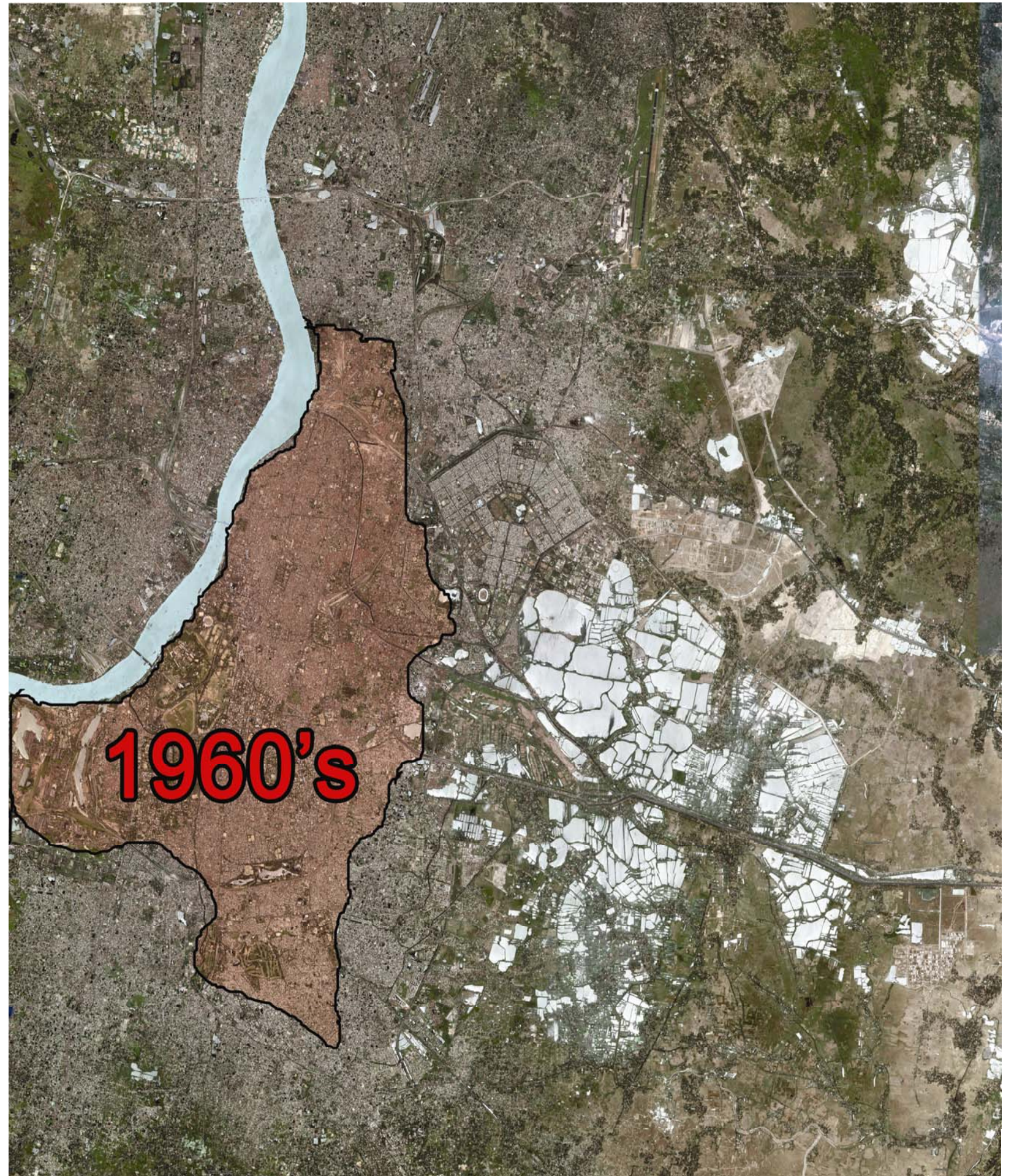
 BOUNDARIES OF KMA 2008
 ADMINISTRATIVE BOUNDARIES OF KMA 2008
 BOUNDARIES MUNICIPALES
 EXTENSION OF KMA BORDER
 BETWEEN 1998 - 2008



CREDITS - ETH, BASEL STUDIO

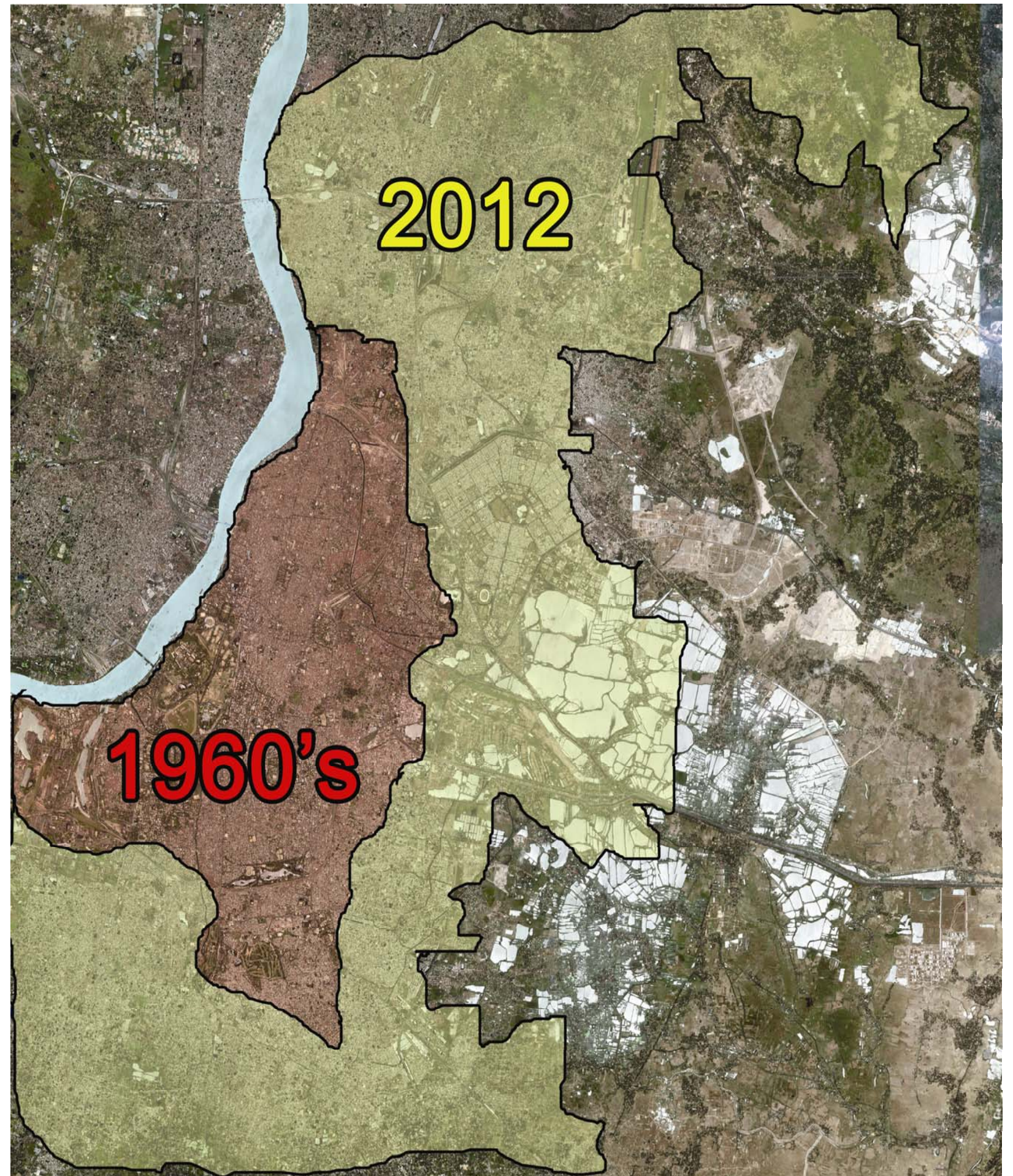
GROWTH OF THE CITY

1960



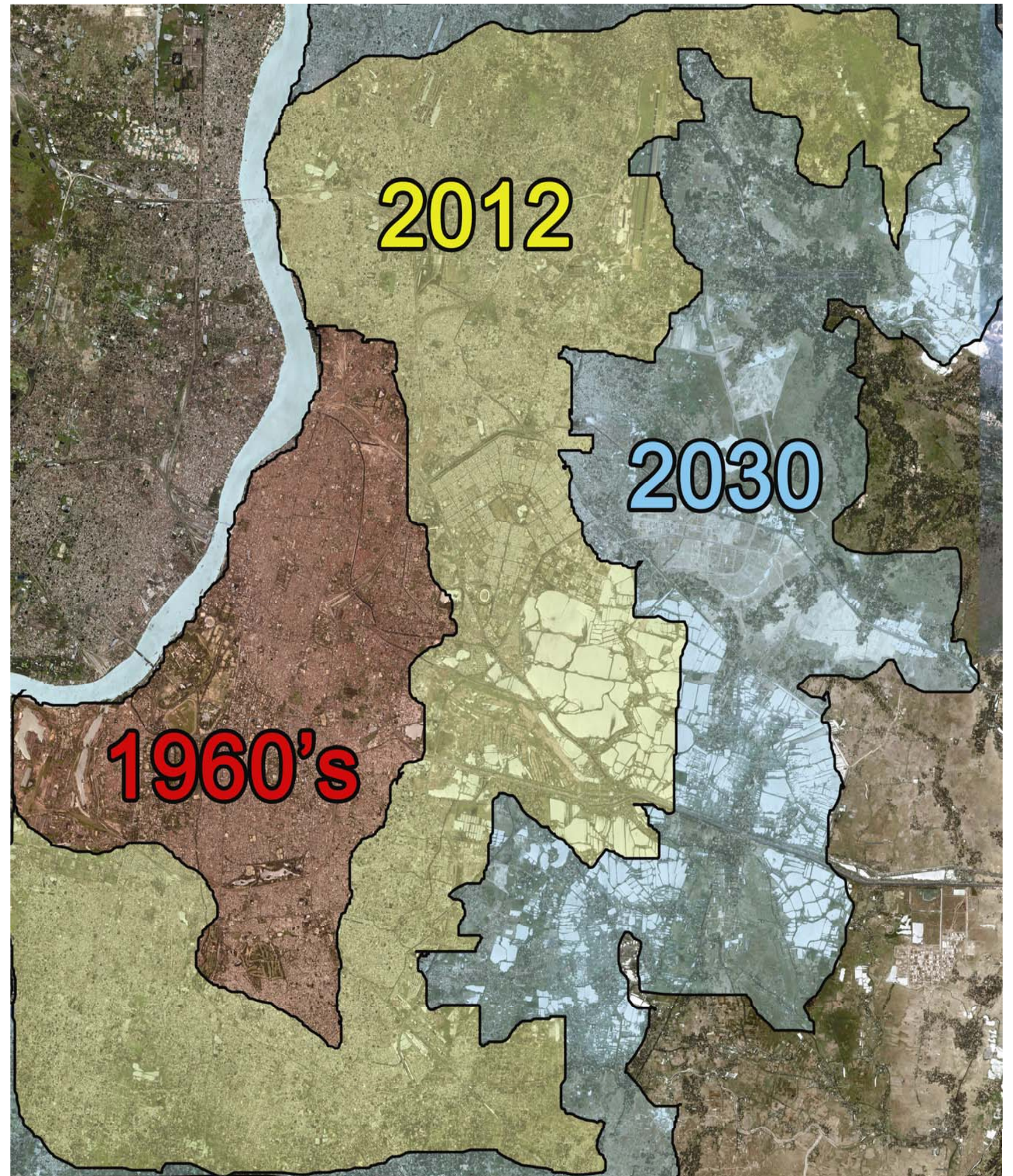
GROWTH OF THE CITY

2012

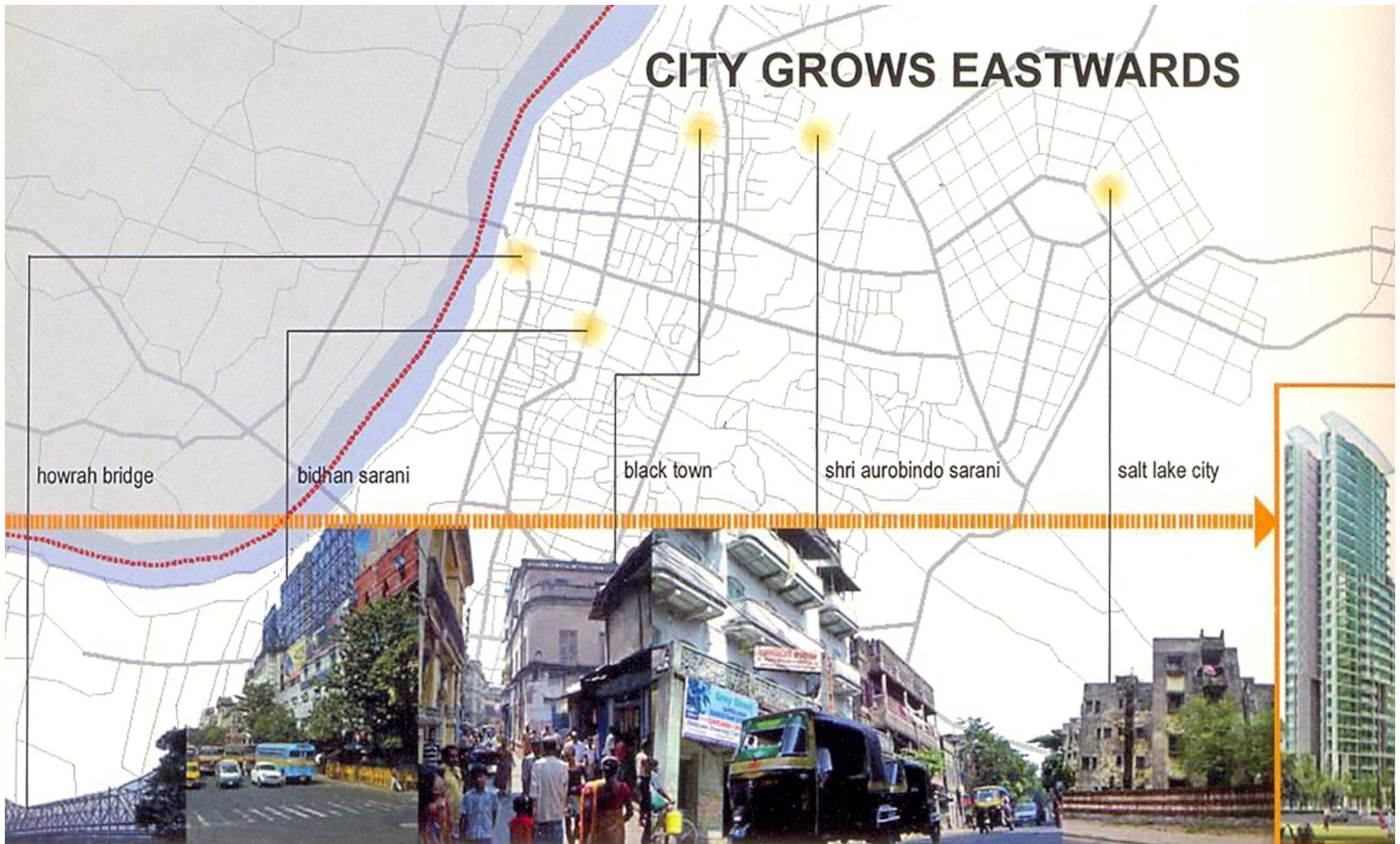


GROWTH OF THE CITY

2030

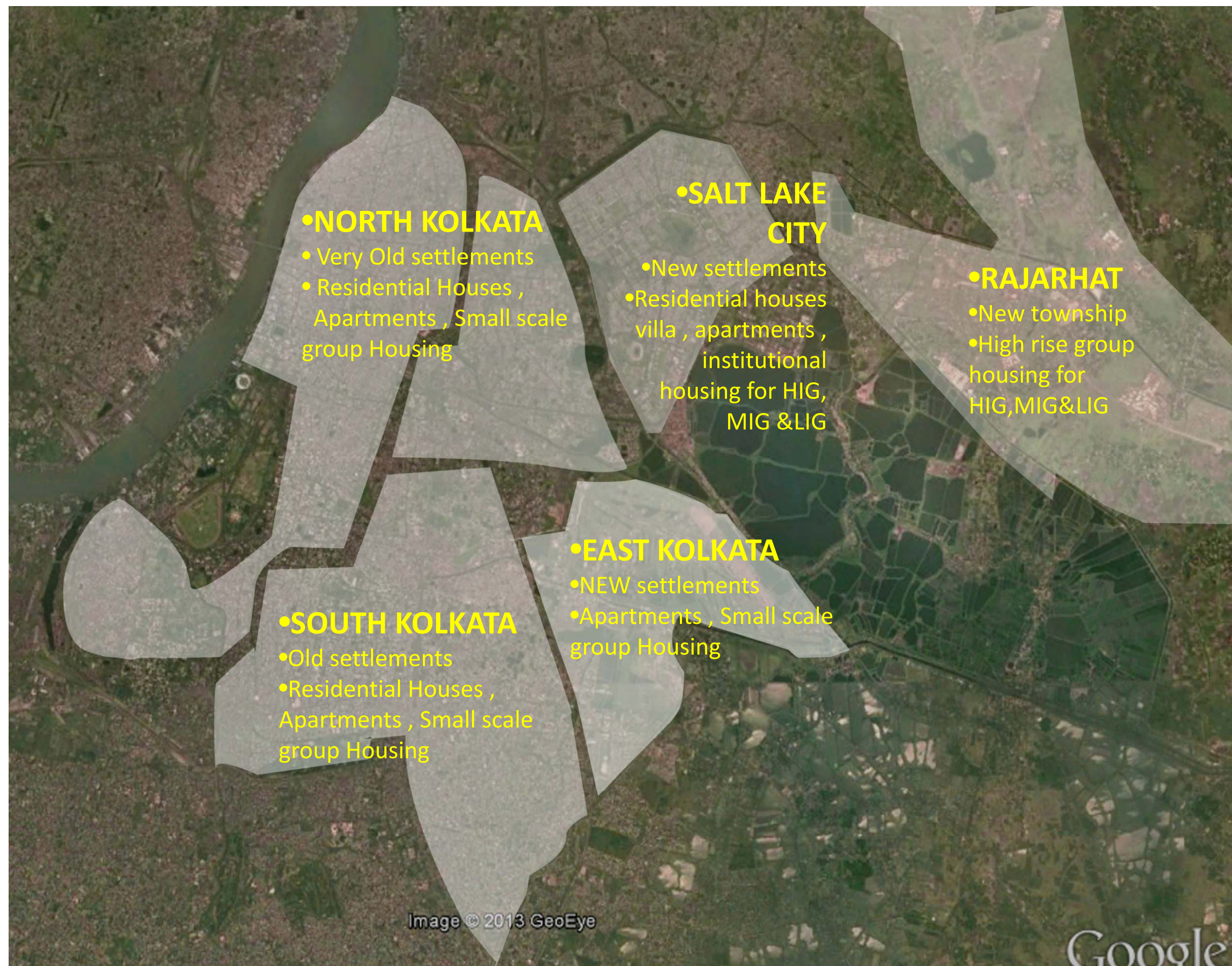


GROWTH OF THE CITY



HOUSING CULTURE OF KOLKATA

TYPE OF HOUSING THROUGHOUT THE CITY



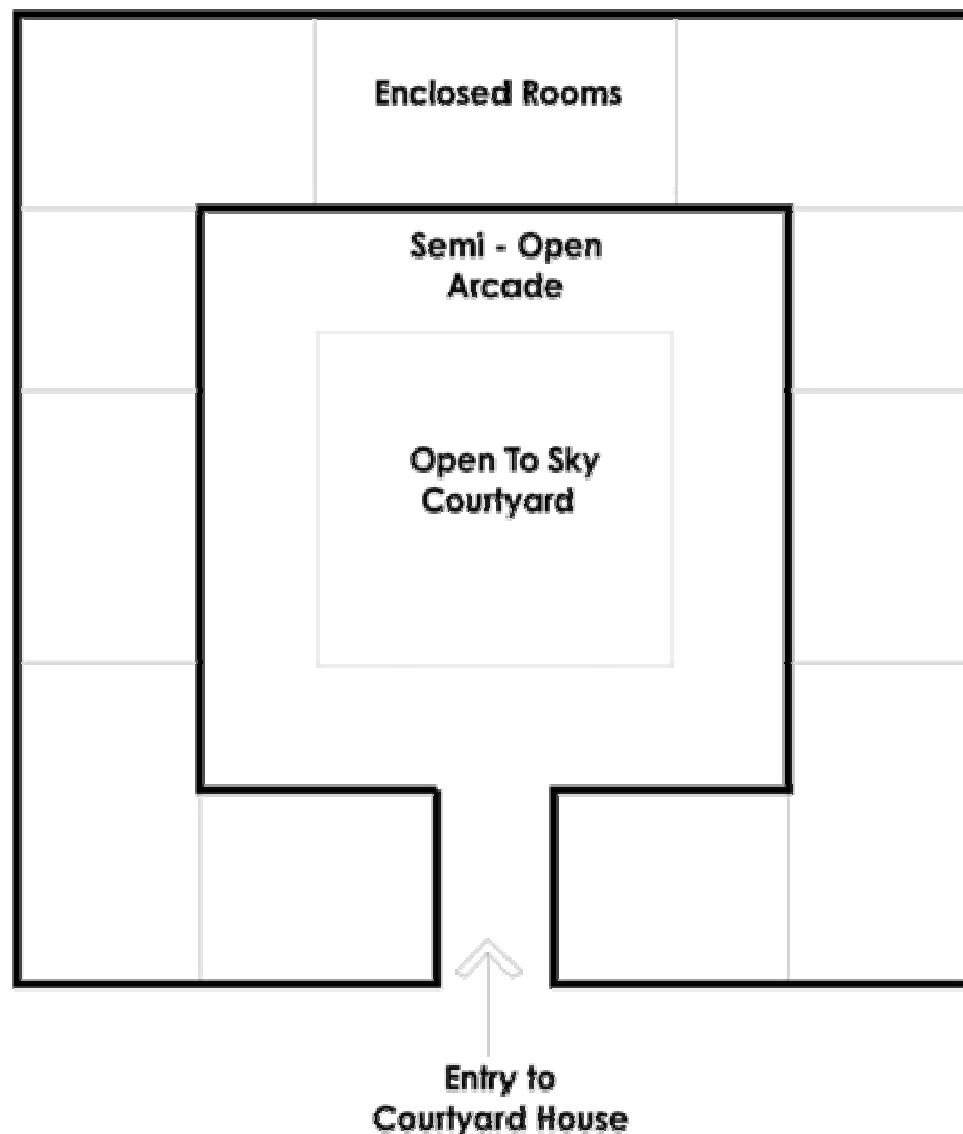
TRADITIONAL HOUSES – **COURTYARD TYPOLOGY**

• **NORTH KOLKATA**

- Very old settlements
- Courtyard type housing
- Densely populated
- No gaps between building to building



TRADITIONAL HOUSES – **COURTYARD TYPOLOGY**



Time Line: 18th century

Socio Economic Factors: It is the very old typology of residential Unit in the city where different families stayed jointly in the same building.

Architecture Style: Coagulation of European Art with Local Architecture

Location : North, KOLKATA

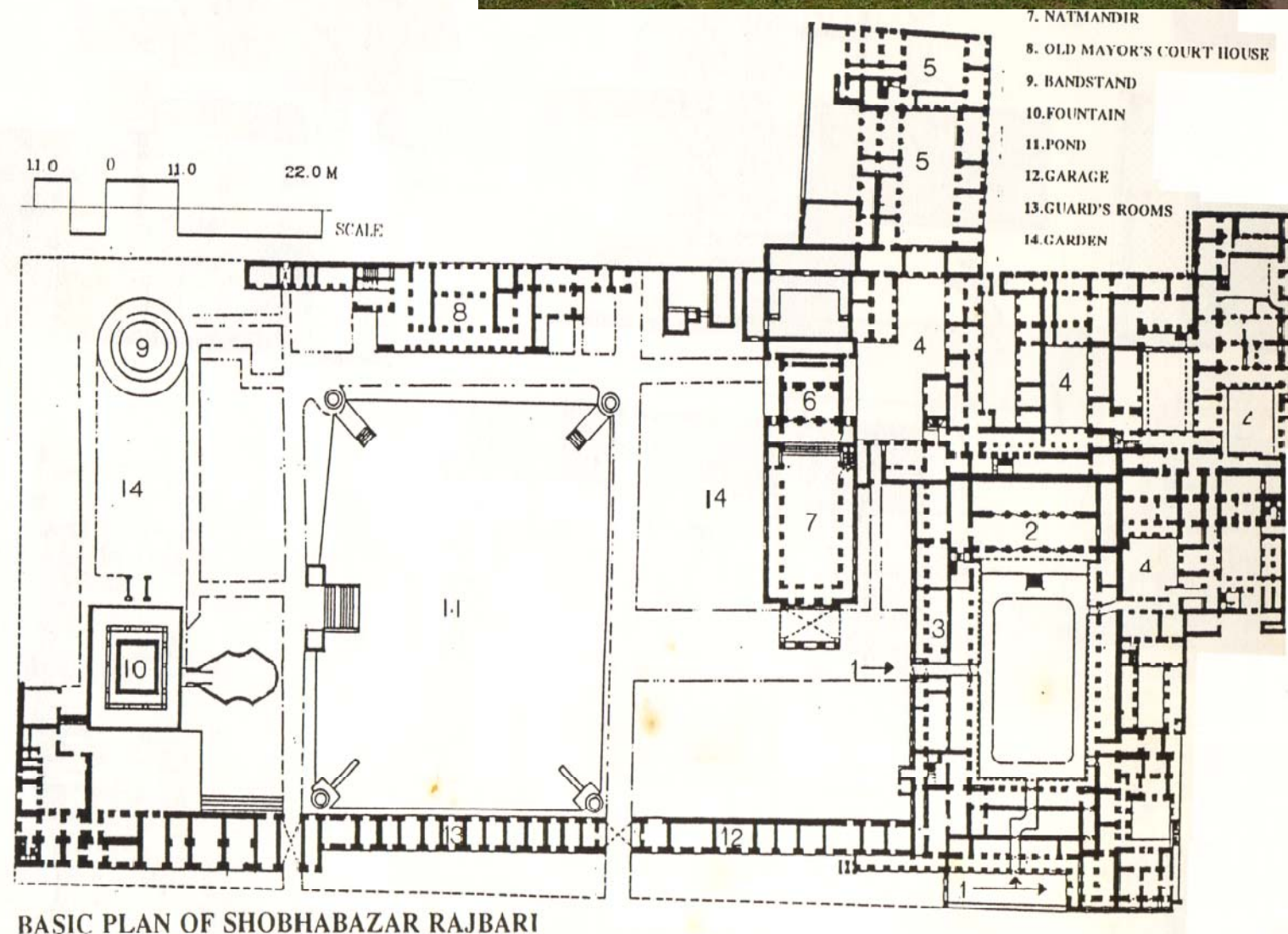
Comment: This plan form had been followed to address the hot & humid of the city KOLKATA , making a central open space and enclosed it building structure all around with verandahs or balcony to form a arcade in between the courtyard and the building.



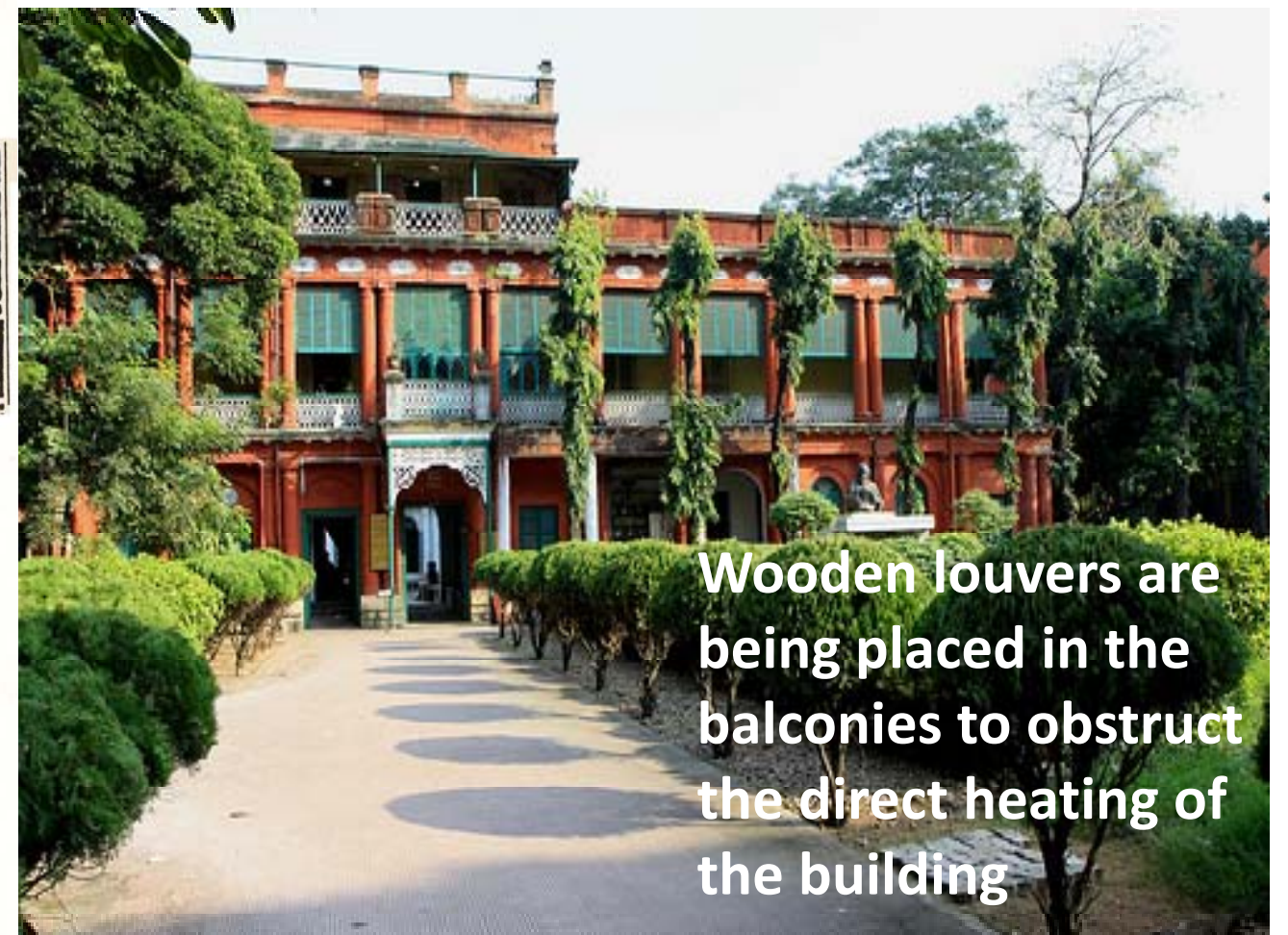
TRADITIONAL HOUSES — COURTYARD TYPOLOGY

Features

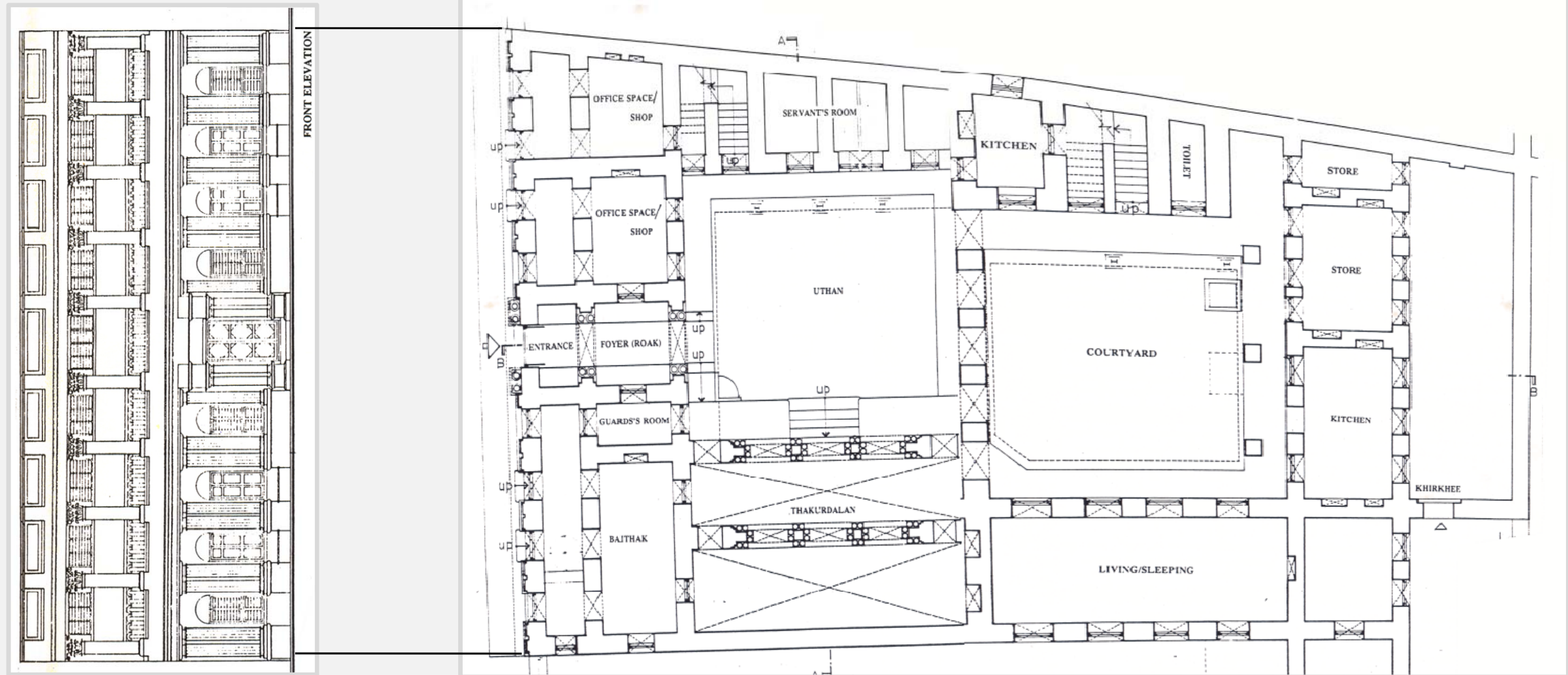
- Climate Response
- Space Segregation
- Natural Lighting
- Assembly Place in the courtyard
- Light Color
- Cross Ventilation



BASIC PLAN OF SHOBHABAZAR RAJBARI



TRADITIONAL HOUSES – **COURTYARD TYPOLOGY**



TRADITIONAL HOUSES – **Bungalows**

BUNGLOWS

- Luxury residential houses located centrally in the Site
- Large green open spaces surrounding building



TRADITIONAL HOUSES – **Bungalows**



Time Line: 19th century

Socio Economic Factors: Single occupancy
Residential Building

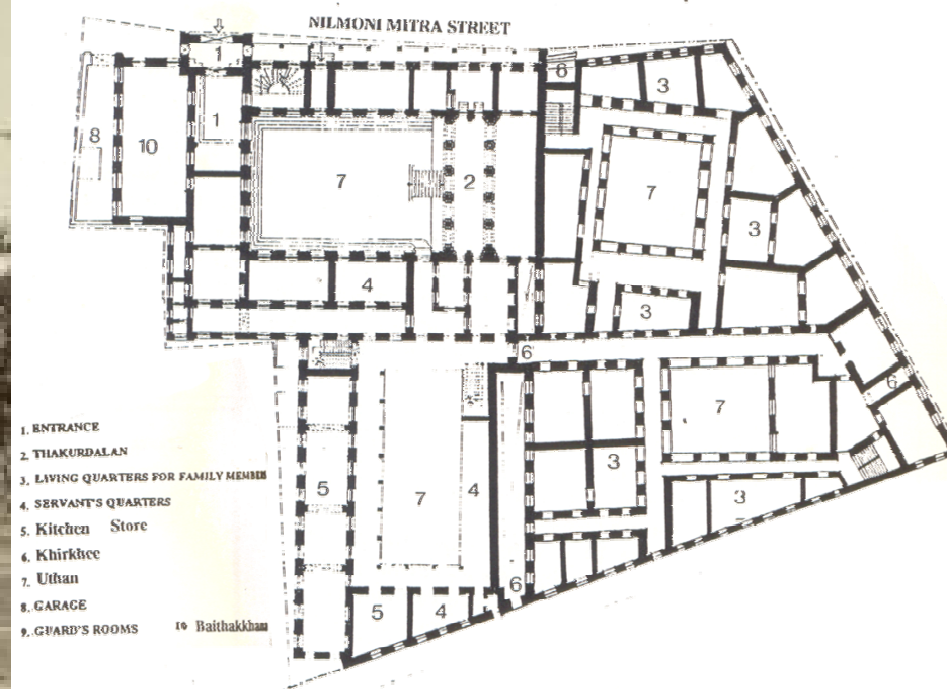
Architecture Style: Neo – Classical in Local
Architecture

Location : Alipur, Shakespear Sarani , Bhowanipur
, KOLKATA

Comment: This single family luxurious
residential houses , which was mainly occupied
by the high incoming people of the city , with
large open spaces in the front and back . Large
gated entry with gigantic porches.



TRADITIONAL HOUSES – **Bungalows**



Feature

- Climate Response
- Space Segregation
- Natural Lighting
- Large green open spaces .
- height of the buildings is maximum 2-3 storey.
- Use the character of Neo-Classical style .

TRADITIONAL HOUSES – **Bungalows** ... Architectural features



Wooden Louvers in the balcony.
Corinthian Column



Large entry porches



Wooden windows with classical
outlook



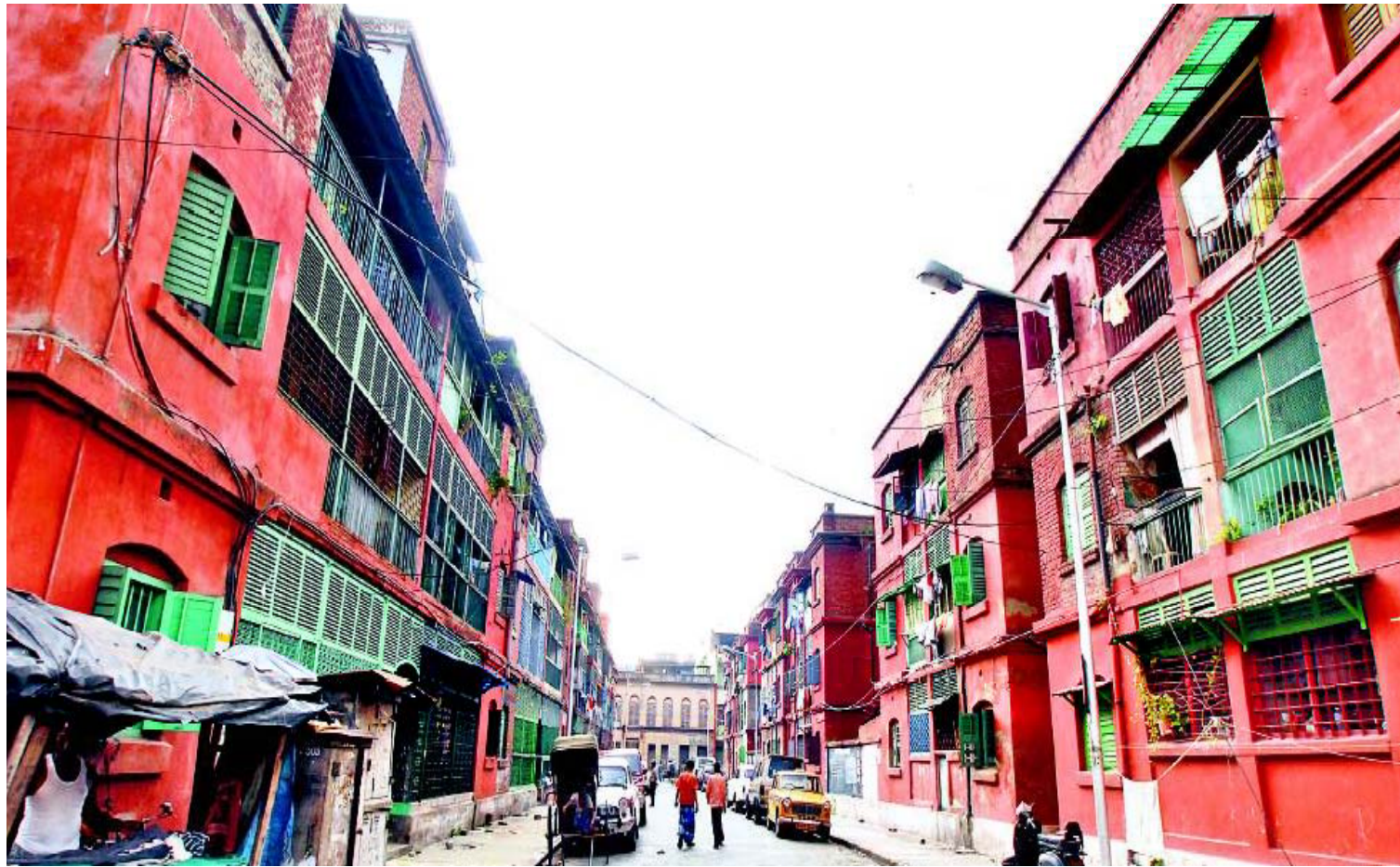
Large building envelope with
large windows

TRADITIONAL APARTMENTS .. **BOW BARRACKS**

- **CENTRAL KOLKATA**
- Traditional Old apartments before independence



TRADITIONAL APARTMENTS .. **BOW BARRACKS**



Time Line: 1914

Socio Economic Factors: Currently occupied as Residential Apartment

Architecture Style: Classical

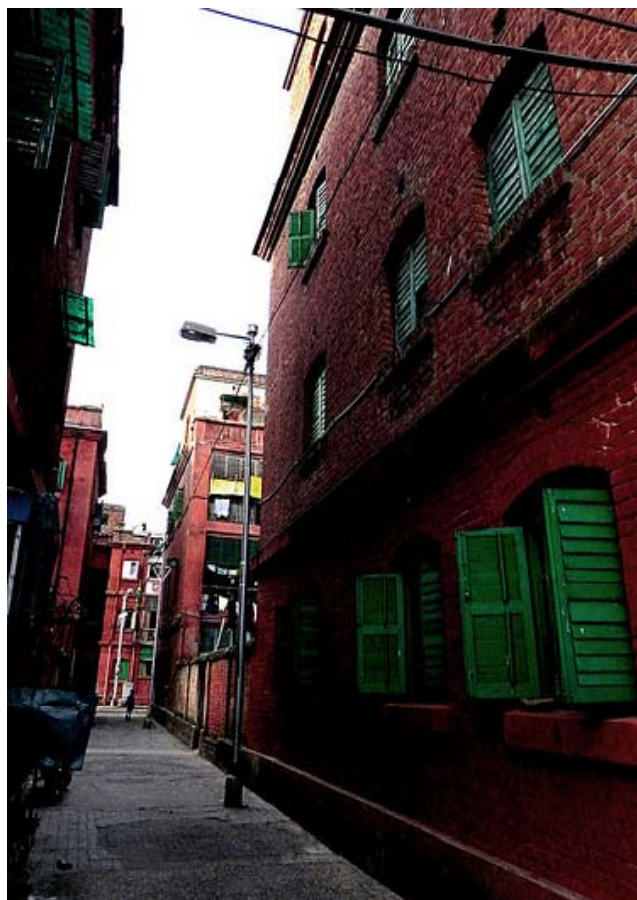
Location : Central KOLKATA

Comment: It was made for the Garrisons Mess during WORLD WAR-1 & now it is occupied by Anglo-Indian Families .

This Initializes the group Housing in the city First .



TRADITIONAL APARTMENTS .. **BOW BARRACKS**



Feature

- First Multiple family housing concept in the city .
- Service core concept has been implemented .
- Use classical in a contemporary way .
- Height of the building is maximum of 4 storey .

TRADITIONAL APARTMENTS .. **BOW BARRACKS** ... Architectural Elements



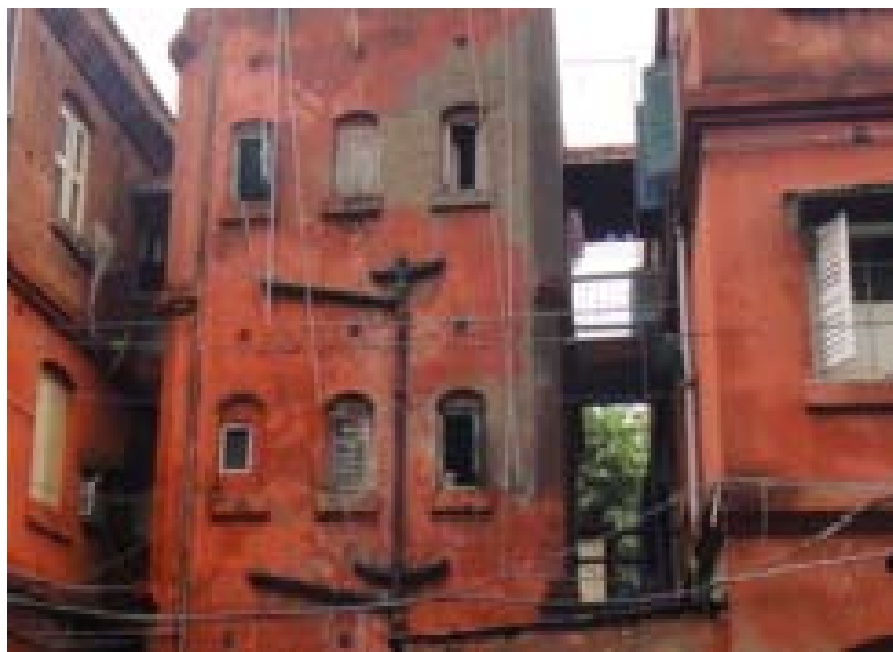
Wooden windows



Wooden Louvers following character of old buildings of Kolkata



Most work of exposed Brick works



Small toilet windows

Common Service core between the two buildings



TYPE OF HOUSING THROUGHOUT THE CITY



Colonial Mansions



Time Line: 18th Century

Socio Economic Factors: Currently occupied as Residential, Commercial or Both

Architecture Style: Neo- Classical

Location : Colonial Town and Central Kolkata

Comment: This are being made during the time of British raj in Kolkata . Its is a Mixed – use building basically having residential and commercial use . This trend has come from Downtown st. , London , where ground floor is has got shops and the apartments at the upper floors of the building .



Colonial Mansions



Feature

- High Density
- Space Segregation
- Multipurpose
- Landmark
- Big Structure
- Neo – Classical style .
- Arcades are there at the ground floor .
- Popular spaces for cities recreational activities .

Colonial Mansions ... Architectural Elements



Neo- Classical elements .

Corinthian Column capital.



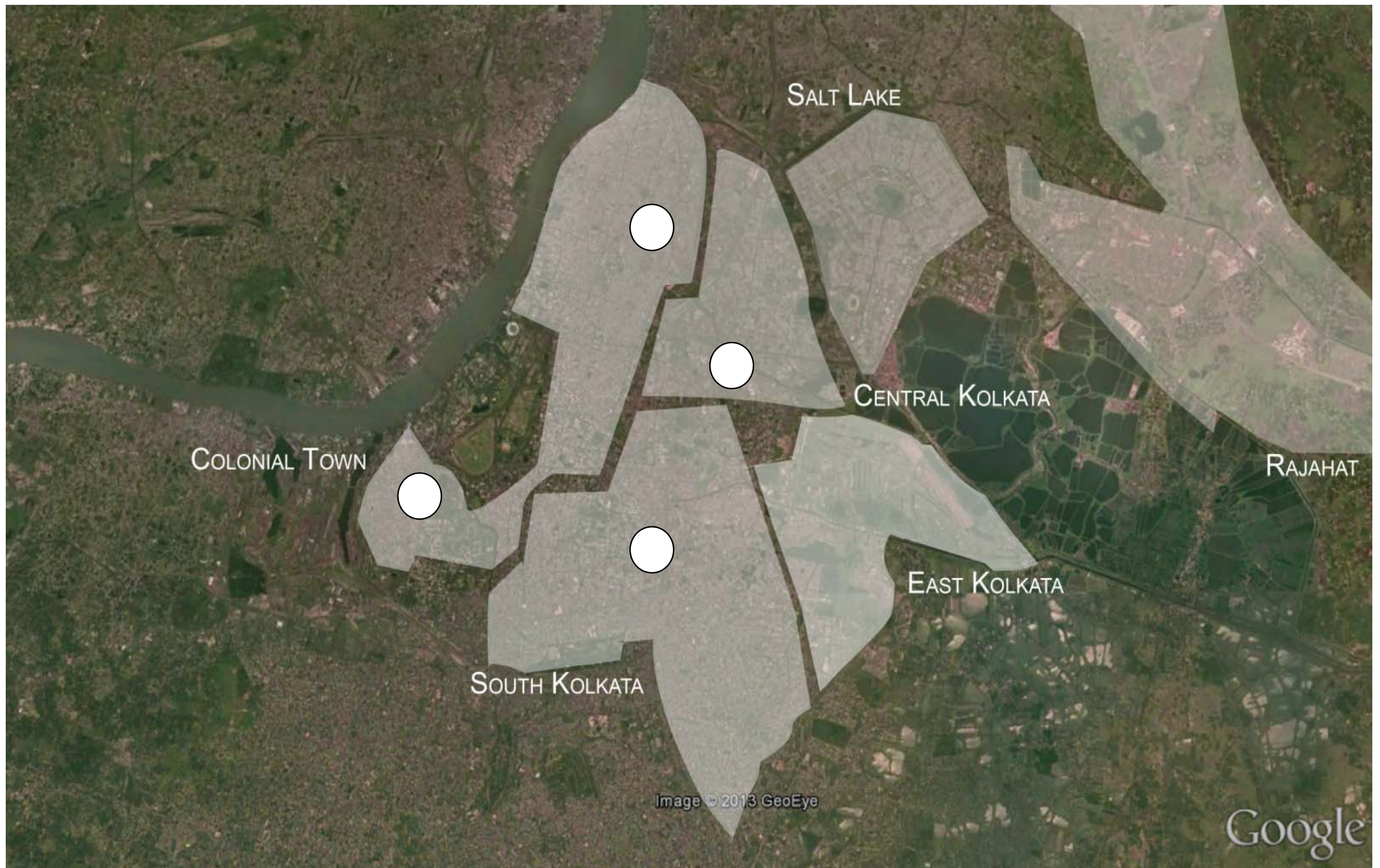
Neo- Classical elements .



Wooden Windows with
Classical Outlook



Palaces of KOLKATA



Palaces of KOLKATA



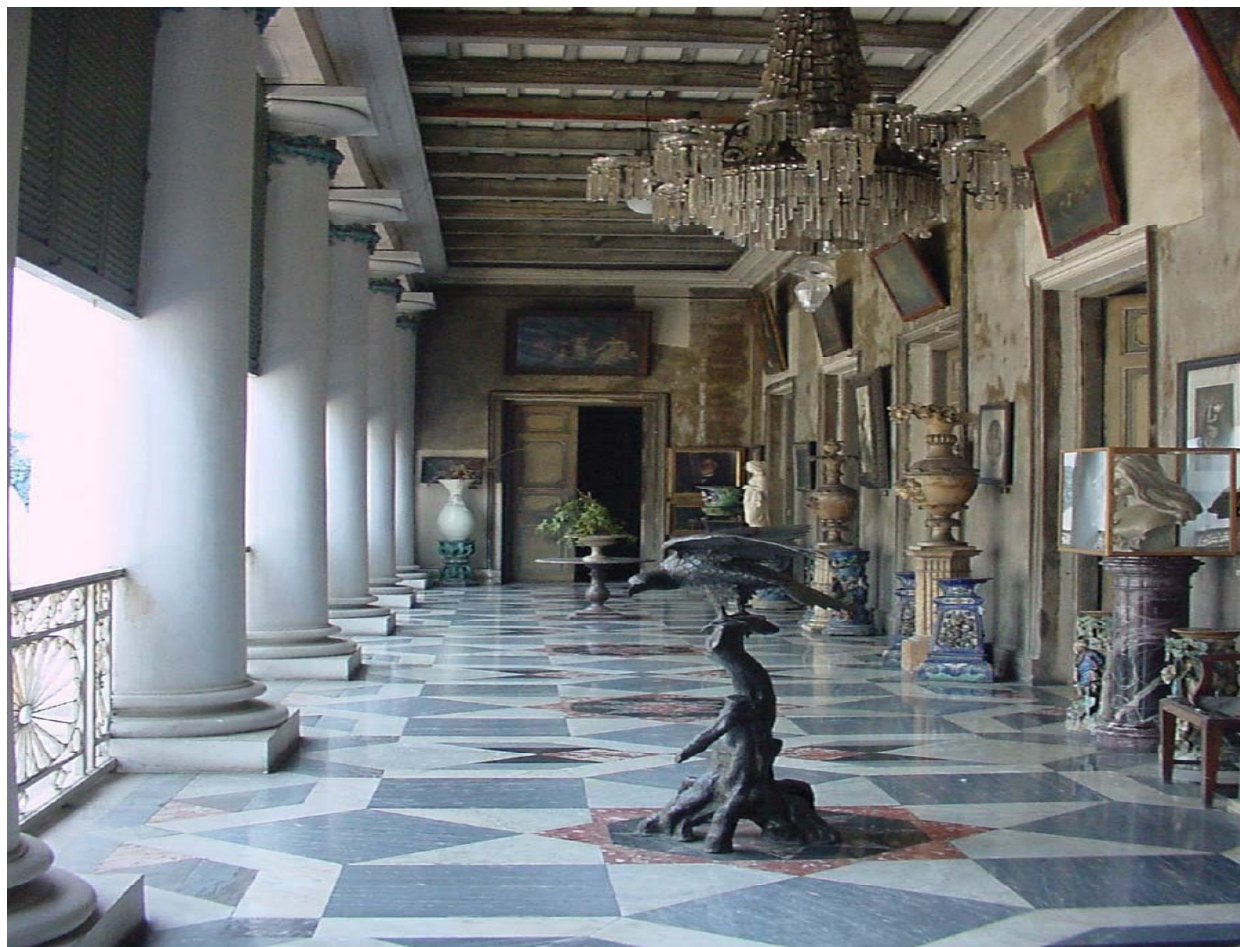
Time Line: 18th century

Socio Economic Factors: Mainly occupied by Zamindars (land owners) or Raja (KING

Architecture Style: European Art with Local Architecture

Location : Scattered all over KOLKATA

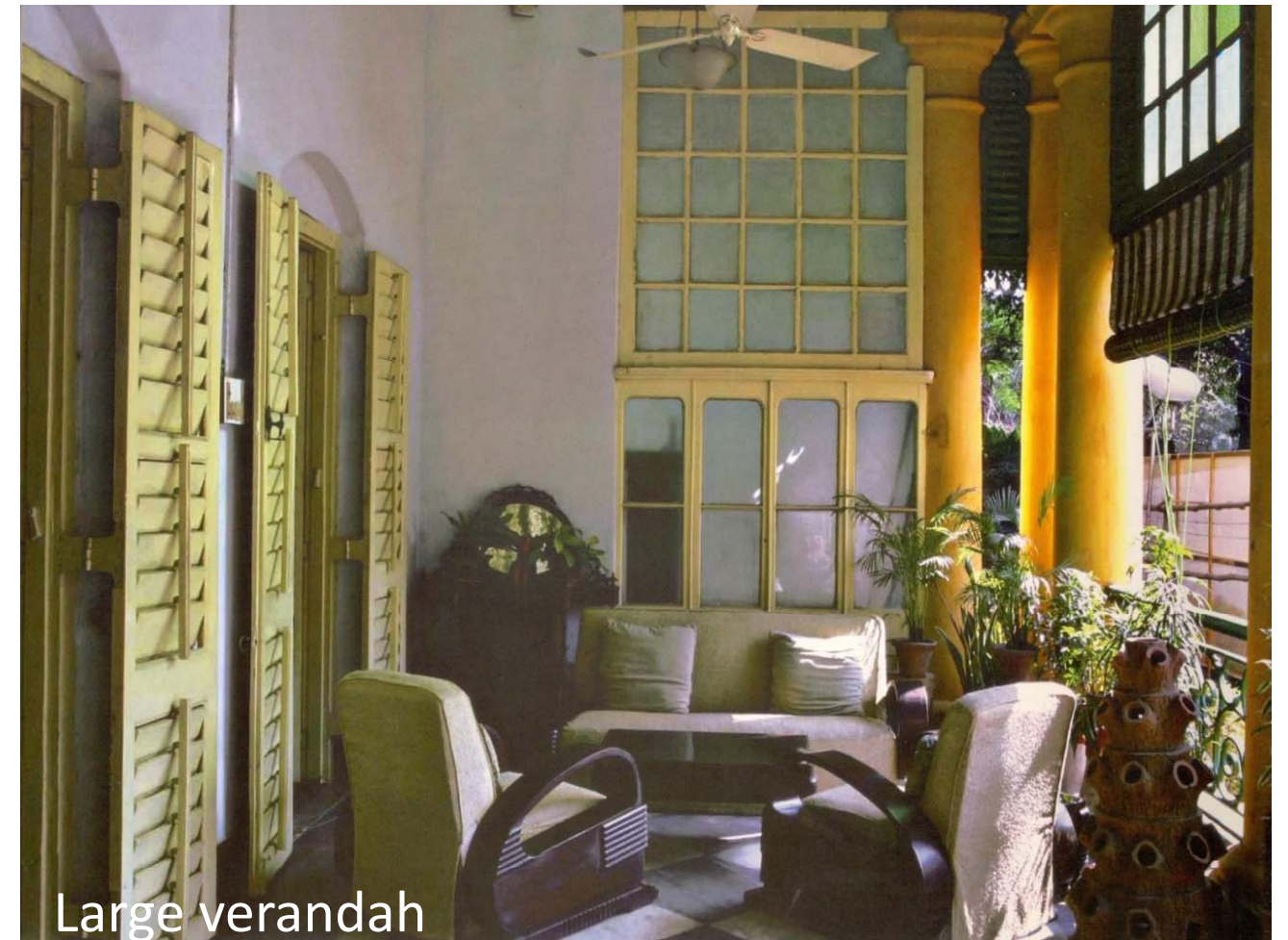
Comment : This are the large buildings with a frontal green open space all around the building . Large balcony are being made in the front side of the building .



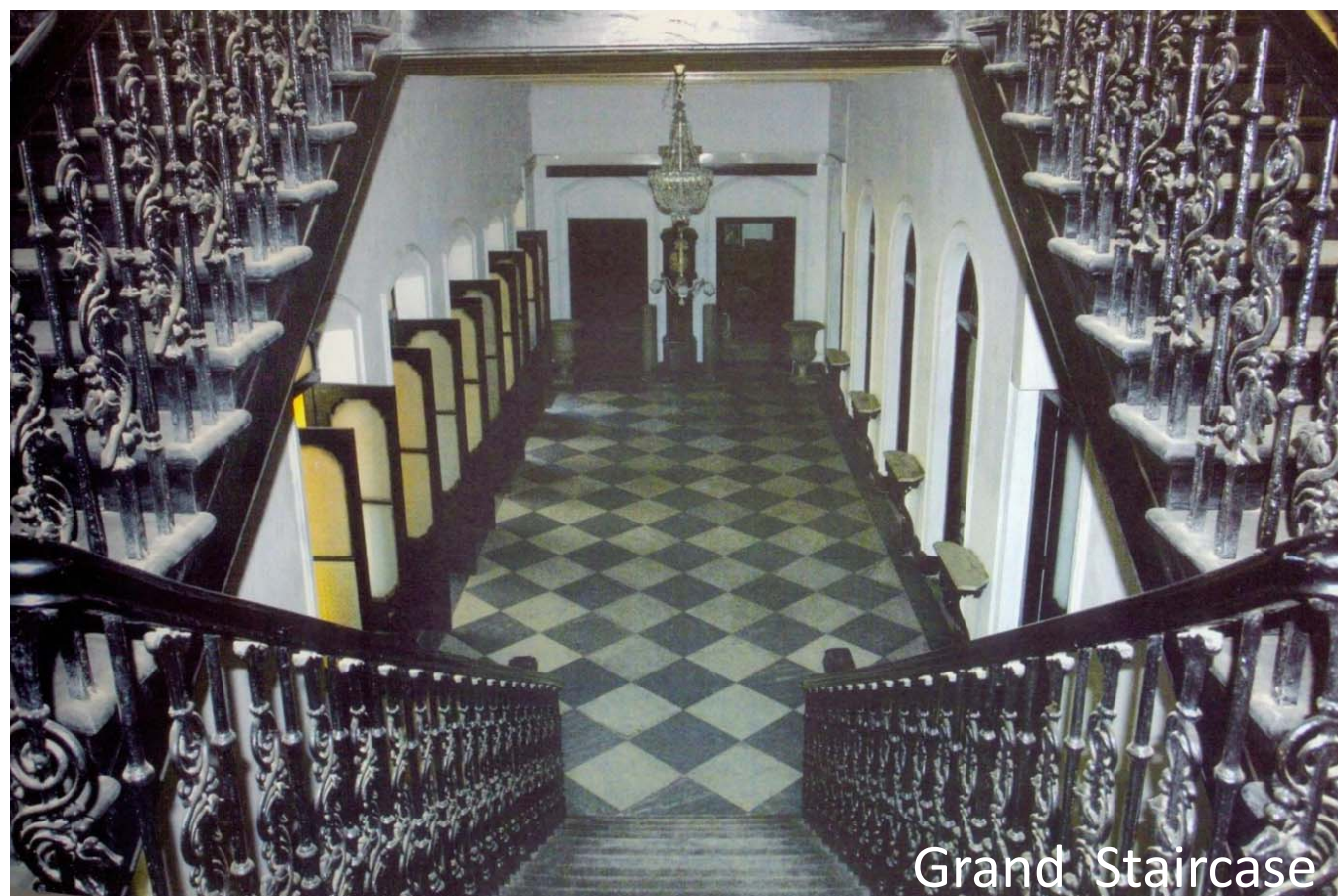
Palaces of KOLKATA ... Architectural Elements



Use of wooden Louvers



Large verandah



Grand Staircase

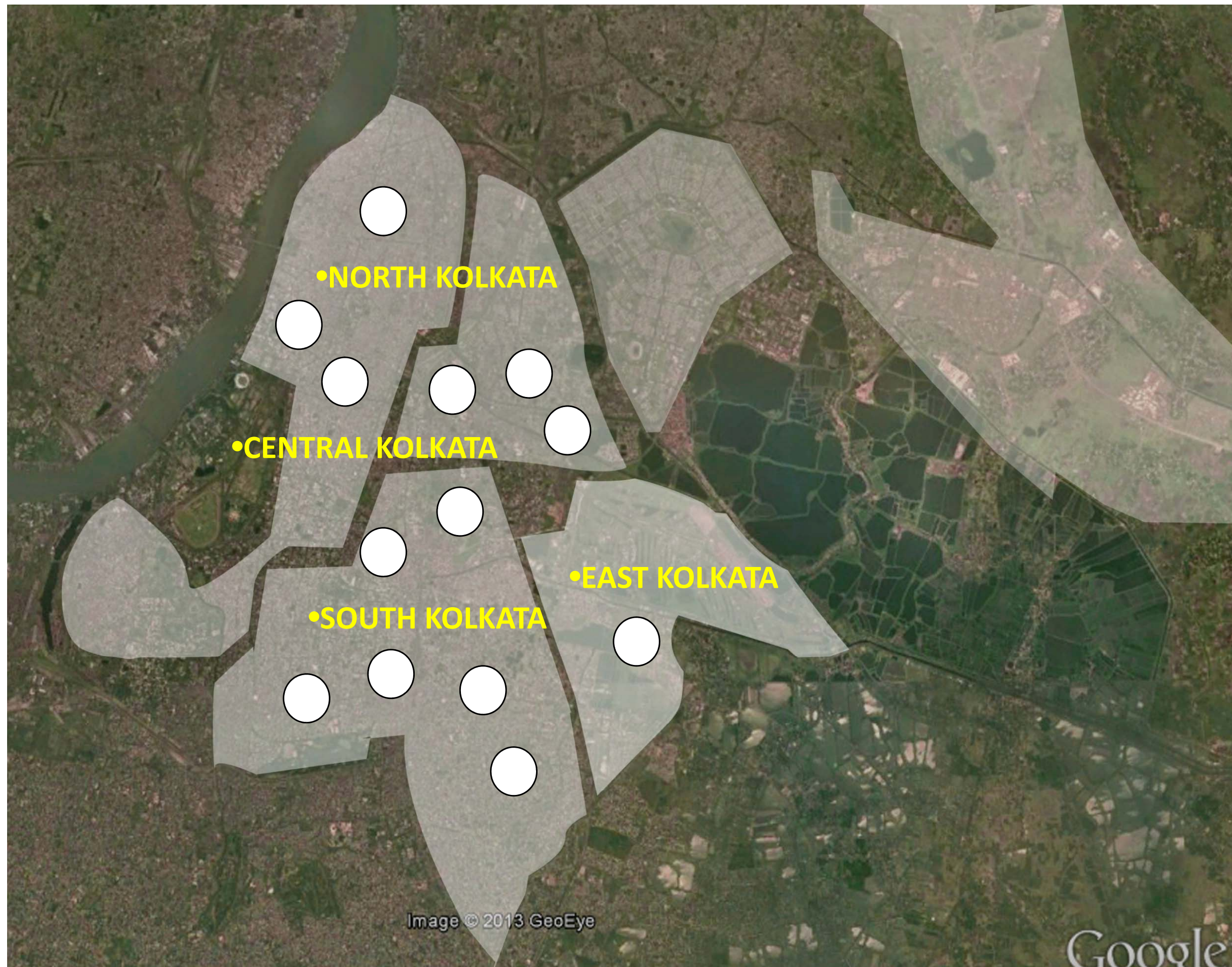


Corinthian Columns

Features

Climate Response
Space Segregation
Natural Lighting
Light Color
Cross Ventilation
Large green spaces
within Buildings .
Use of Costly building
material

INDIVIDUAL APARTMENT HOUSING THROUGHOUT THE CITY



Squatters- An Intrinsic Property



Time Line: 1960's Onwards

Socio Economic Factors: Currently occupied as Residential, Commercial or Both

Architecture Style:

Location : Outskirts of Kolkata

Comment: This type house are mainly occupied by poorer section of the city . This population generally stays in a dense format . Basically this Buildings are mainly formed at the outskirts of the city by grabbing lands . This buildings does have any legal documentation .

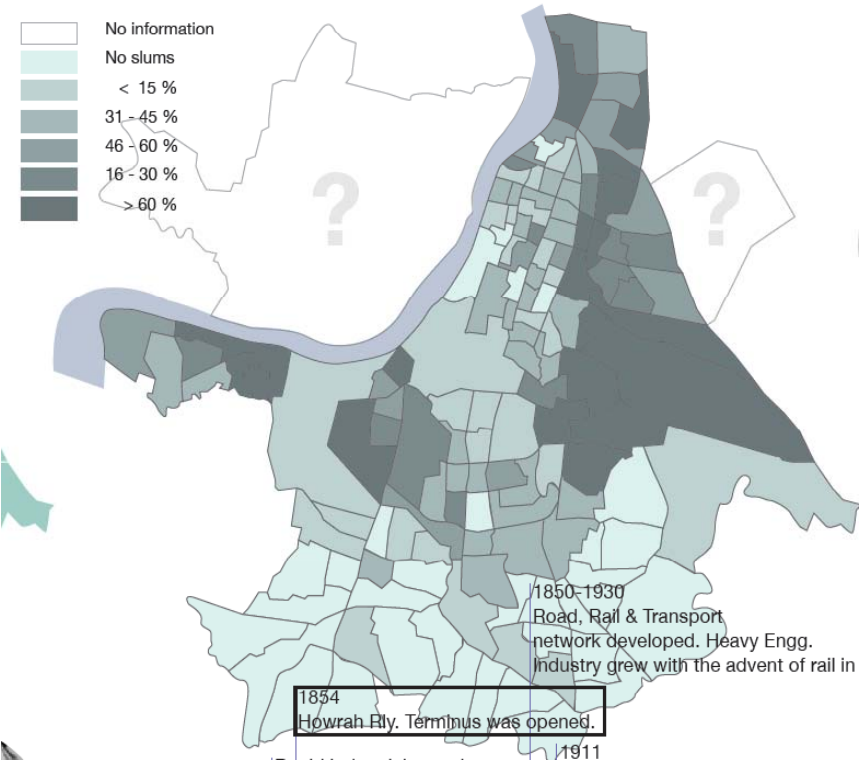
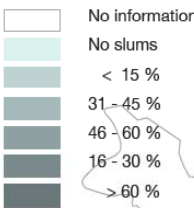


Squatters- An Intrinsic Property



SLUM

Ward wise percentage of slum distribution to total population



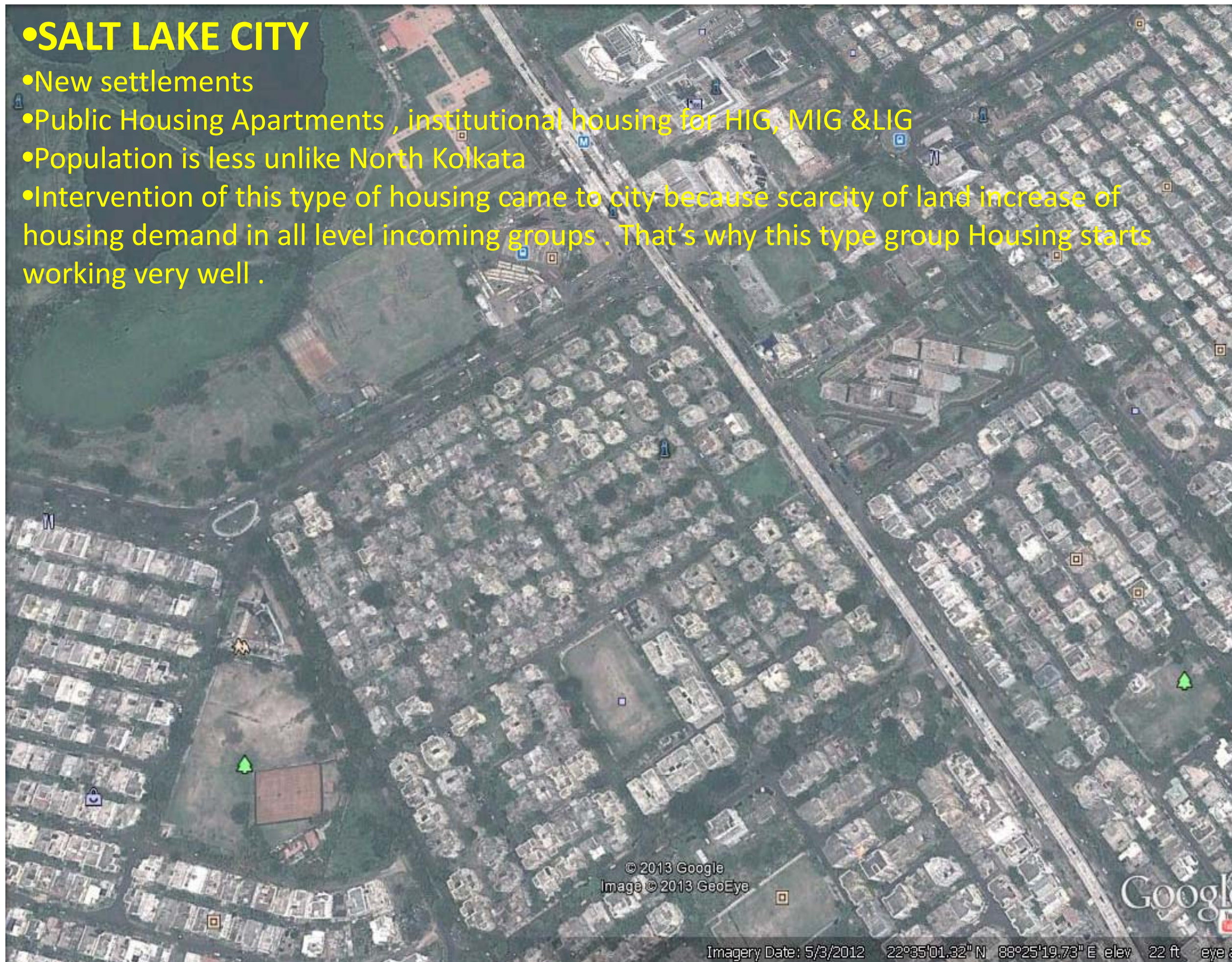
Feature

- Climate Response
- Densely Populated
- Natural Lighting Less
- Very less provision for Ventilation
- They mainly use recycled materials to built the buildings .
- This buildings not very much sustainable

PUBLIC HOUSING

•SALT LAKE CITY

- New settlements
- Public Housing Apartments , institutional housing for HIG, MIG & LIG
- Population is less unlike North Kolkata
- Intervention of this type of housing came to city because scarcity of land increase of housing demand in all level incoming groups . That's why this type group Housing starts working very well .



PUBLIC HOUSING



Time Line: Post 1970's

Socio Economic Factors: Multi-Family residences

Architecture Style: Contemporary

Location : Salt Lake city , KOLKATA

Comment: This group housing is being made in the salt lake city , these type housing is being practiced by **GOVERNMENTAL BODIES** for various incoming groups of people in the cities . This apartments are awarded to people who are working for the **GOVERNMENTAL ORGANIZATIONS** in the city .



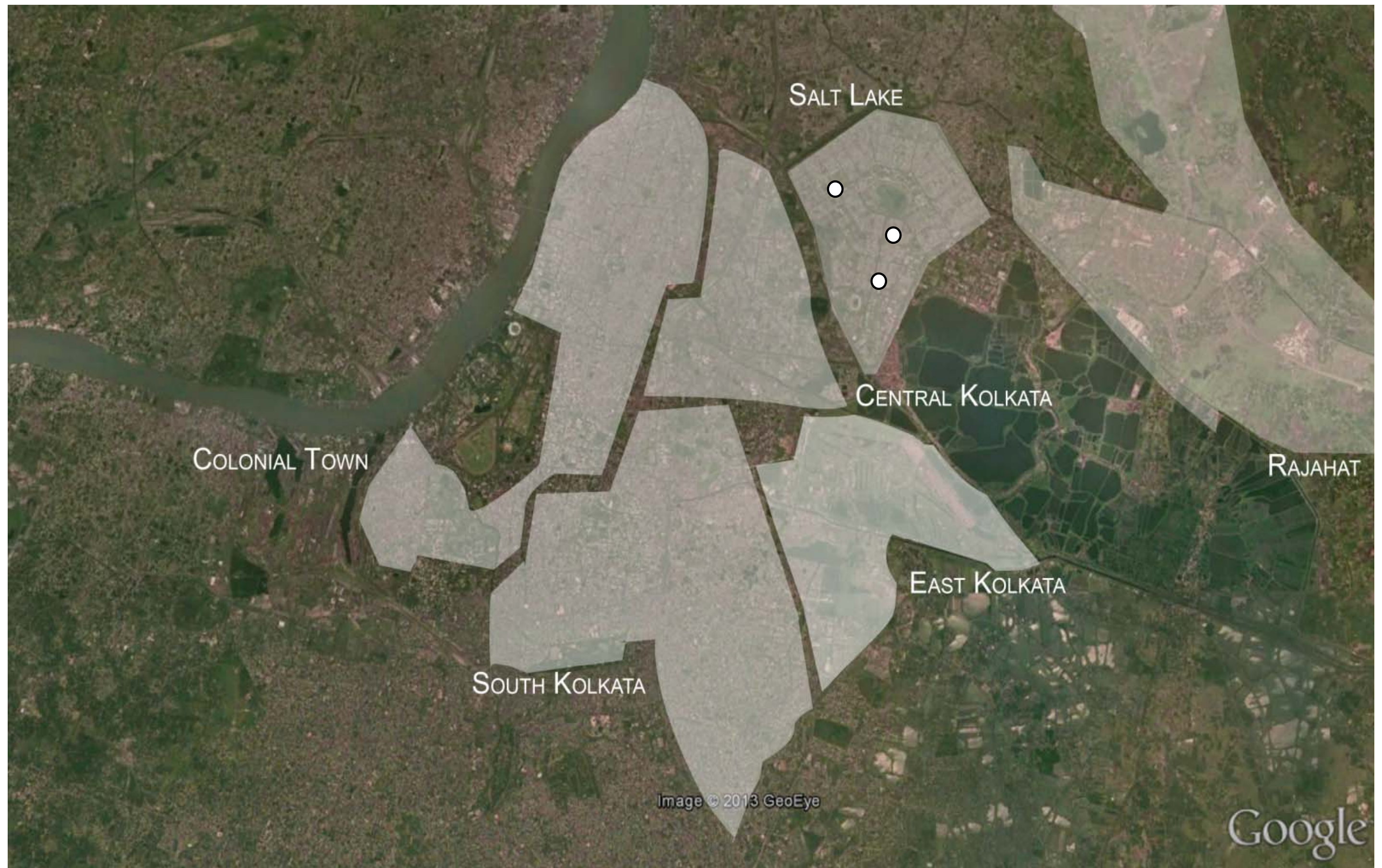
PUBLIC HOUSING



FEATURES

- 4 storied apartments mainly
- Multiple –family in same floor .
- Rooms are smaller in sizes
- Adequate gap between buildings channelize the air flow
- Natural Lighting

INSTITUTIONAL HOUSING



INSTITUTIONAL HOUSING



Time Line: 1950's

Socio Economic Factors: Currently occupied as Residential, Commercial or Both

Architecture Style: Contemporary

Location : Colonial Town

Comment: Group of people live together in this type of buildings mainly provided by the organization .



INSTITUTIONAL HOUSING



Features

- Climate Response
- Space Segregation
- Natural Lighting
- Mainly hostels made by institution for various users .
- Generally courtyard in the middle , surrounded by building all around.

TYPE OF HOUSING THROUGHOUT THE CITY

- **SALT LAKE CITY**

- New settlements
- Residential houses , villa
- It is not as densely populated as North Kolkata



Individual Housing



Time Line: Post 1970's

Socio Economic Factors: Single owner ,family residences .

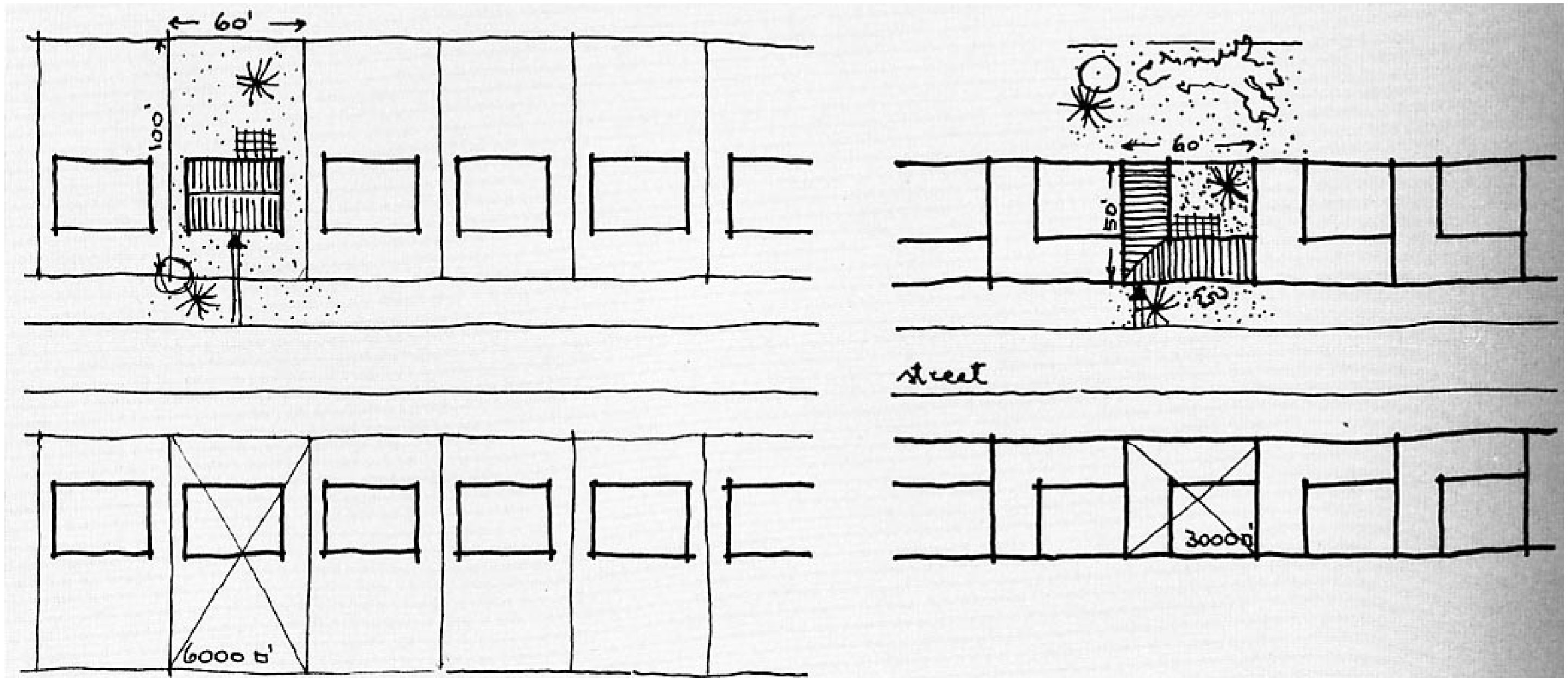
Architecture Style: .

Location : Contemporary

Comment: Mainly designed for Single family .
The buildings are being clustered to form a
avenue of houses with proper plotting of their
boundaries .

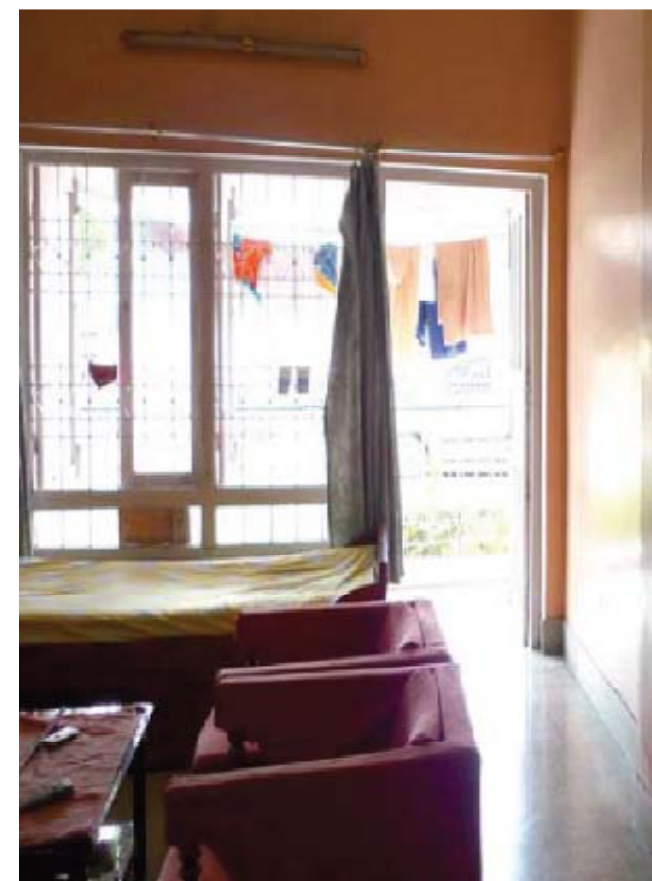


Individual Housing



- Diagram to show efficiency in land use by using adjoining courtyard houses instead of single family homes.
- Adaptation from courtyard type housing to Individual housing , placing the building in the middle with open spaces around the building .

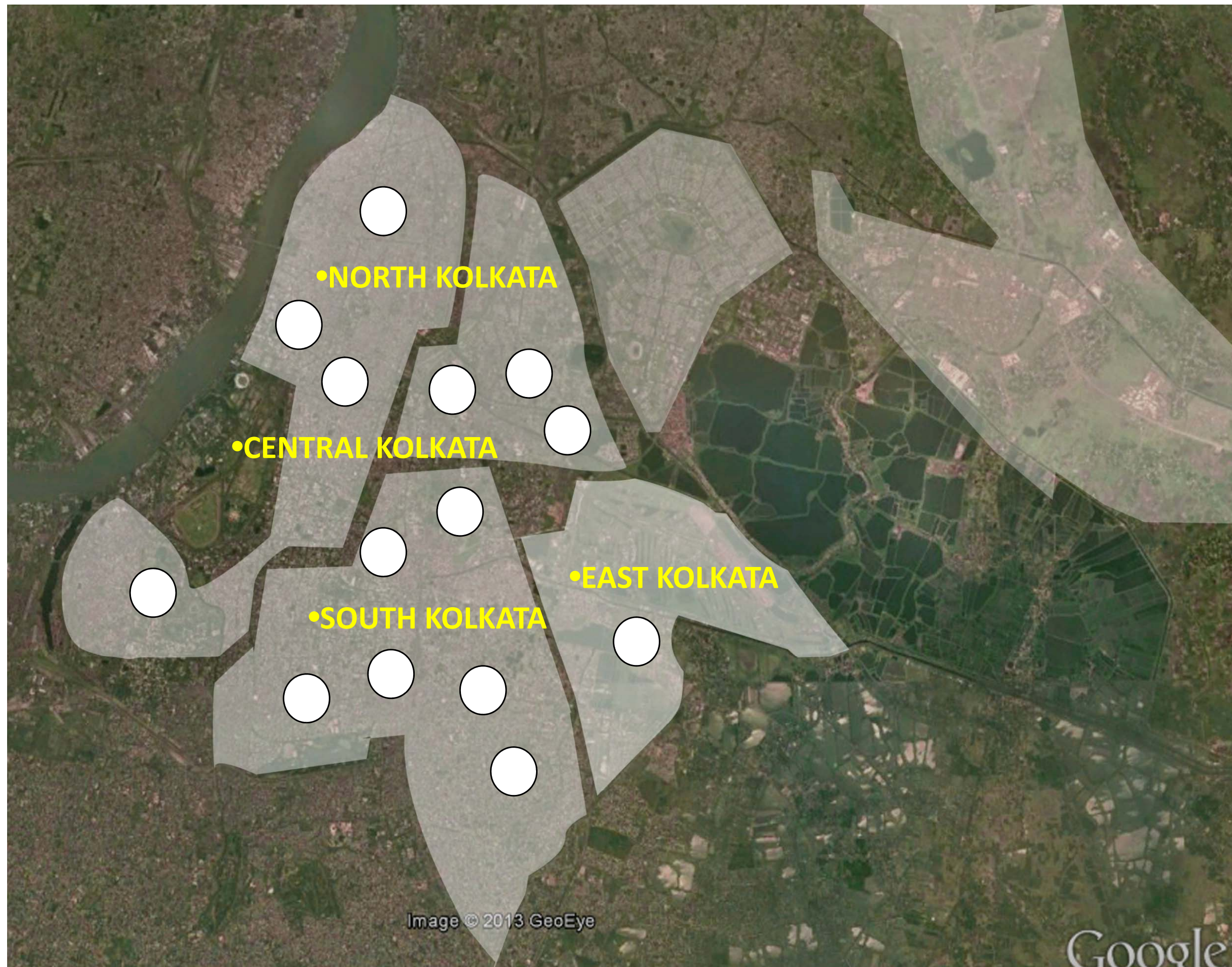
Individual Housing



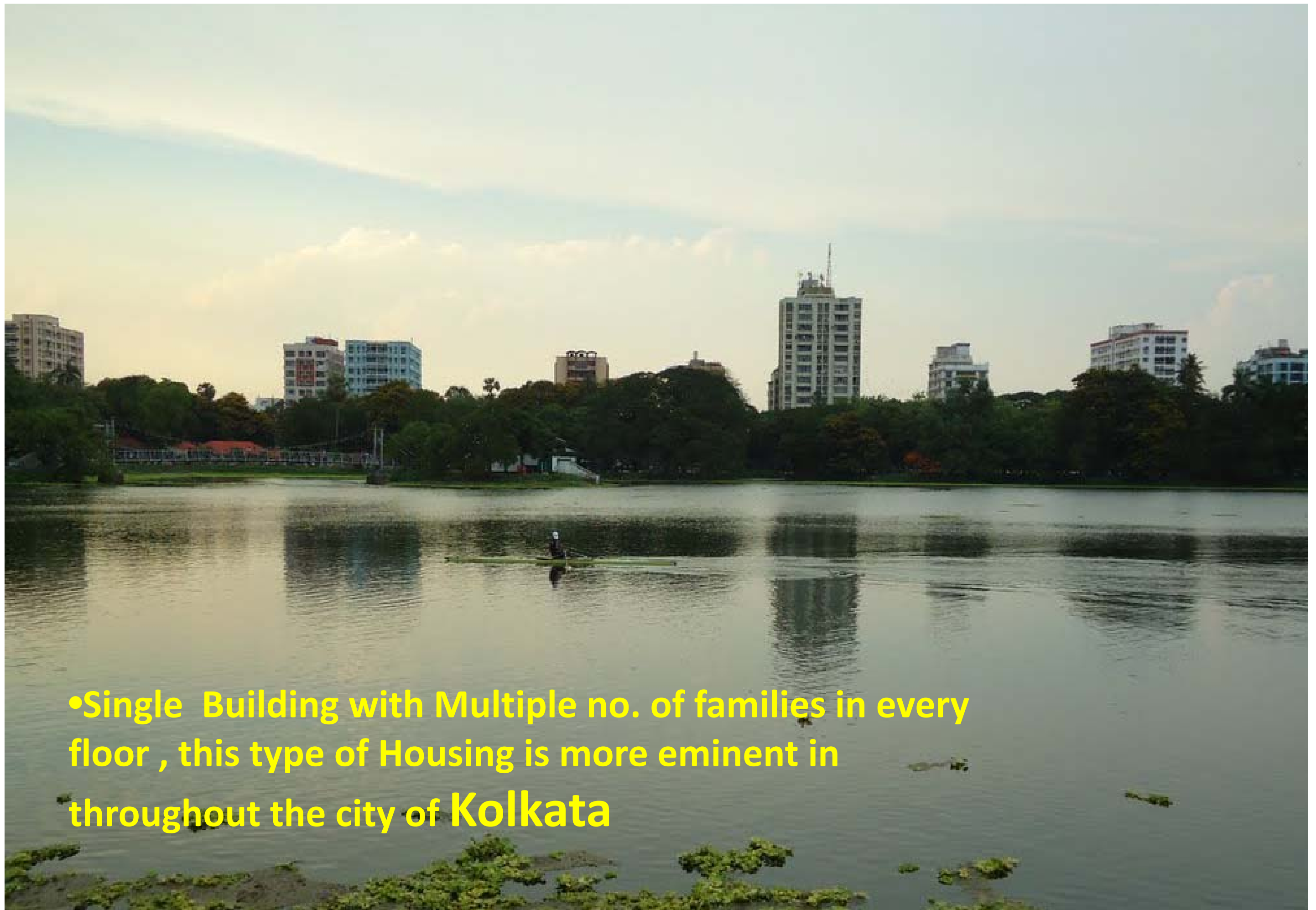
Features

- Single family Occupancy
- Height of the building is maximum of 2-3 storey .
- Open spaces are placed in front and rear of the building .

INDIVIDUAL APARTMENT HOUSING THROUGHOUT THE CITY



INDIVIDUAL APARTMENT HOUSING THROUGHOUT THE CITY



•Single Building with Multiple no. of families in every floor , this type of Housing is more eminent in throughout the city of **Kolkata**

INDIVIDUAL APARTMENT HOUSING THROUGHOUT THE CITY



Time Line: Started from 1990's

Socio Economic Factors: Multi Family Residences

Architecture Style: Contemporary

Location : All over the city of , Kolkata

Comment: Multiple family occupancies in the same floor . Buildings are being made **high-rises & low rises** to accumulate more families . Generally this type housings are more prominent in the city.



INDIVIDUAL APARTMENT HOUSING THROUGHOUT THE CITY



FEATURES

- 5-12 storied apartments mainly .
- Multiple –family dwelling in same floor .
- Rooms sizes vary with the ticket size of the apartment in every floor
- This type of housing very much prominent in the city till today .



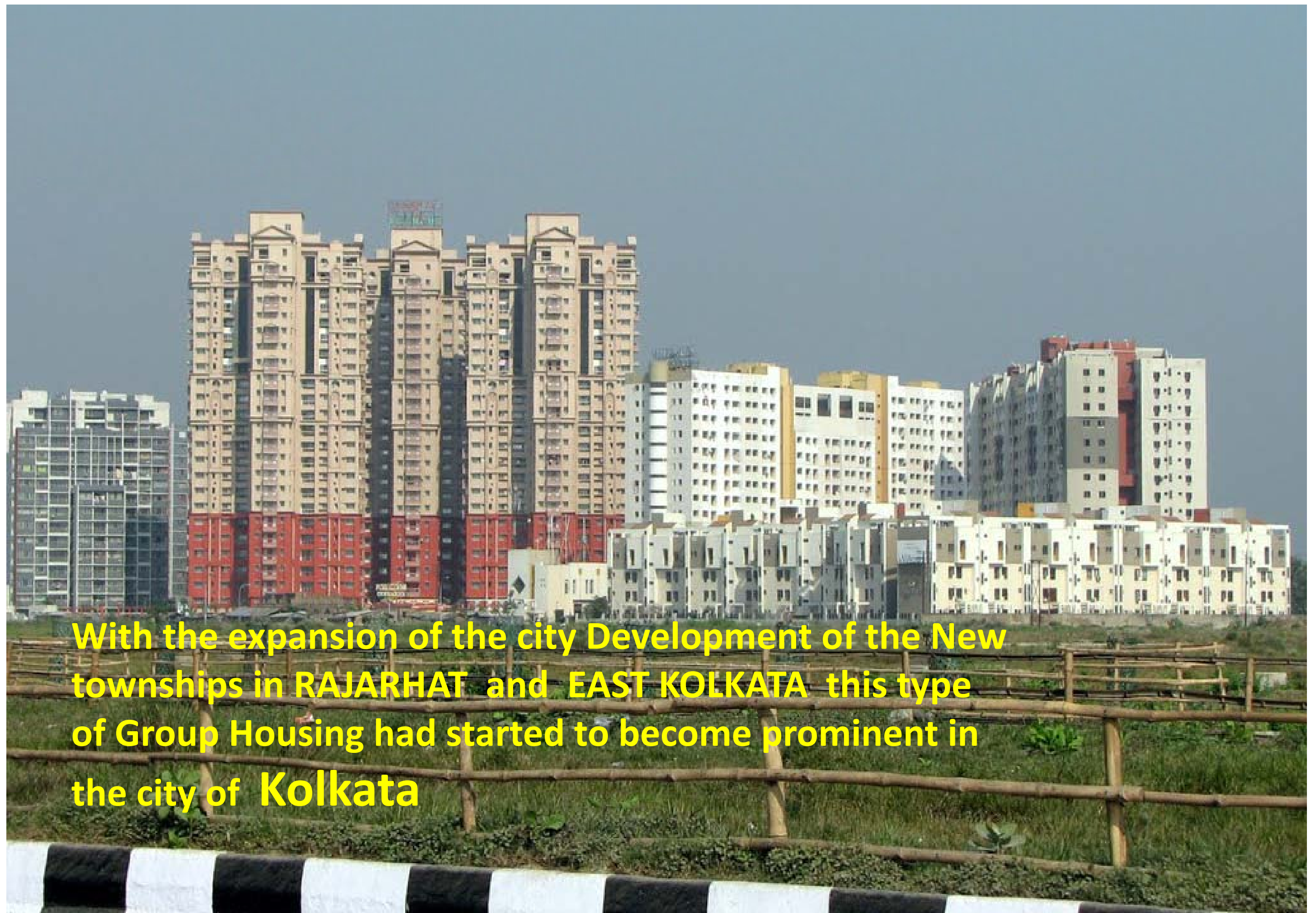
INDIVIDUAL APARTMENT HOUSING THROUGHOUT THE CITY



HIGHRISE GROUP HOUSING IN THE CITY



Group Housing



With the expansion of the city Development of the New townships in RAJARHAT and EAST KOLKATA this type of Group Housing had started to become prominent in the city of Kolkata

Group Housing



Group Housing



Time Line: 21 Century

Socio Economic Factors: Multi Family Residences In a Single Site .

Architecture Style: Contemporary

Location : East Kolkata & Rajarhat Newtown , Kolkata

Comment: Multiple family occupancies in the same floor . Buildings are being made high-rises to accumulate more families . Generally this type housings are being carried out in the city by the private developers .

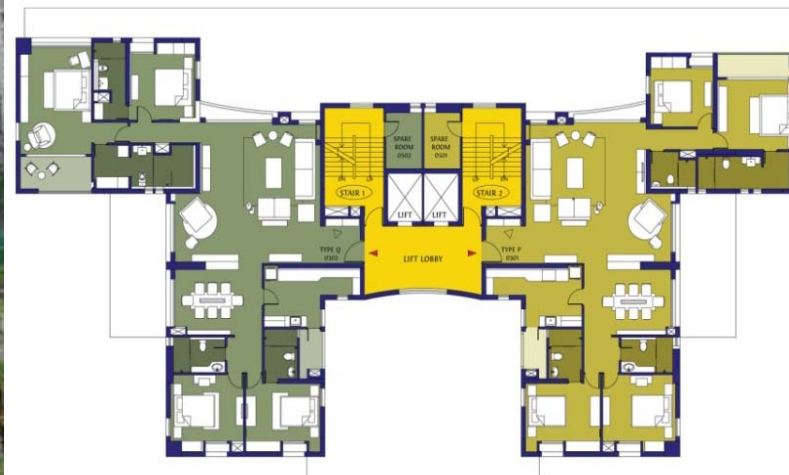


Group Housing



FEATURES

- 15- 21 storied apartments mainly .
- Multiple –family dwelling in same floor .
- Rooms sizes vary with the ticket size of the apartment in every floor
- Gaps between the buildings channelize the air flow
- Natural Lighting is very less





THANK YOU...

ARCHITECTS URBAN DESIGNERS PLANNERS

