

CIHAN UNIVERSITY/SULIMANIA, ARCHITECTURAL DEPT.

FOURTH YEAR 2025-2026

SECOND SEMESTER LECTURE 3



Housing

URBAN HOUSING EVOLUTION

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The emergence of contemporary housing districts

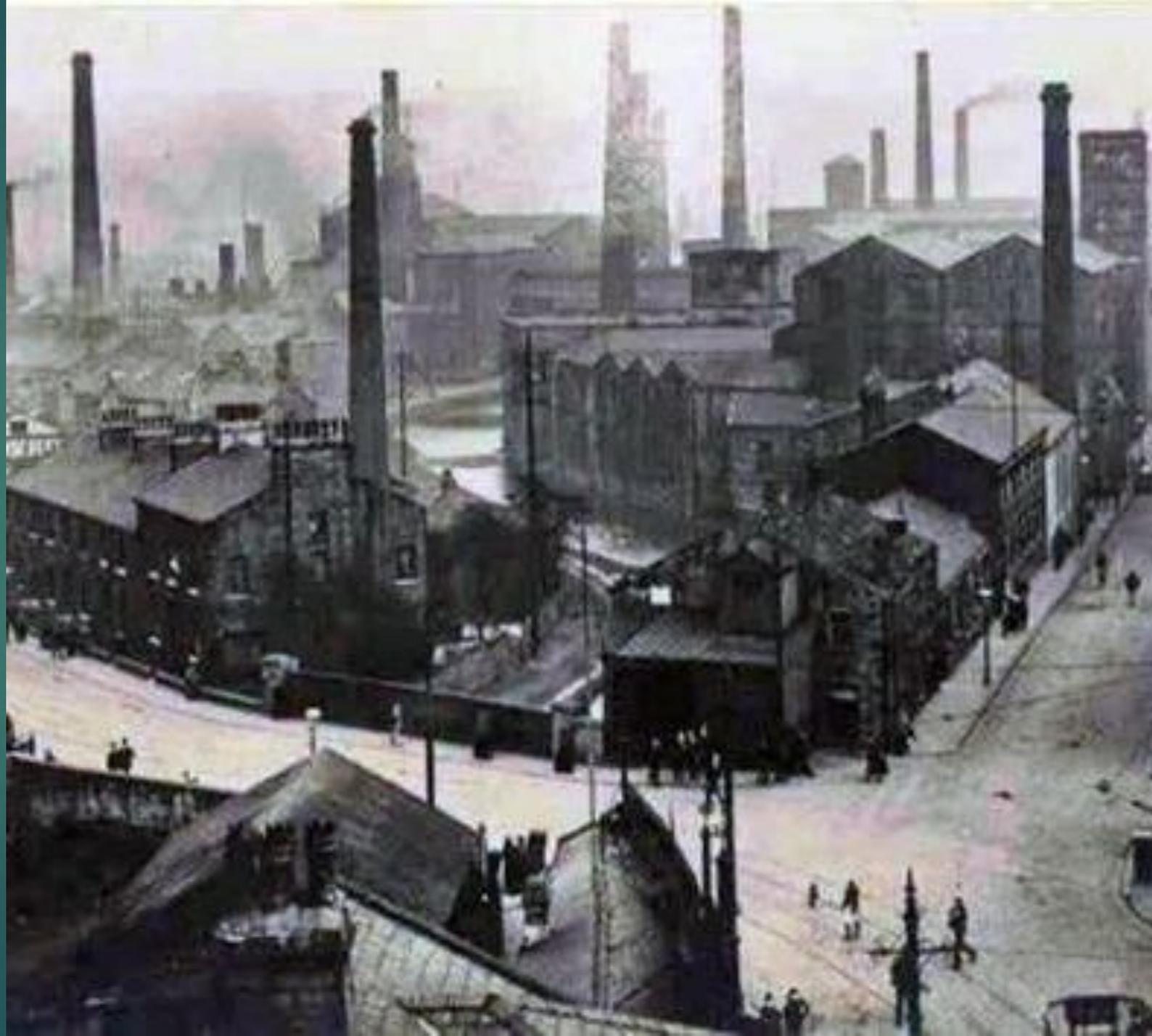
The industrial revolution

- ▶ The Industrial Revolution was the transition to new manufacturing processes in the period from about 1760 to sometime between 1820 and 1840. This transition included going from hand production methods to machines, new chemical manufacturing and iron production processes, the increasing use of steam power, the development of machine tools and the rise of the factory system.
- ▶ Major changes in agriculture, manufacturing, and transportation affected socioeconomic; cultural conditions in society. The most turning point in human society, almost every aspect of daily life was influenced in some way.

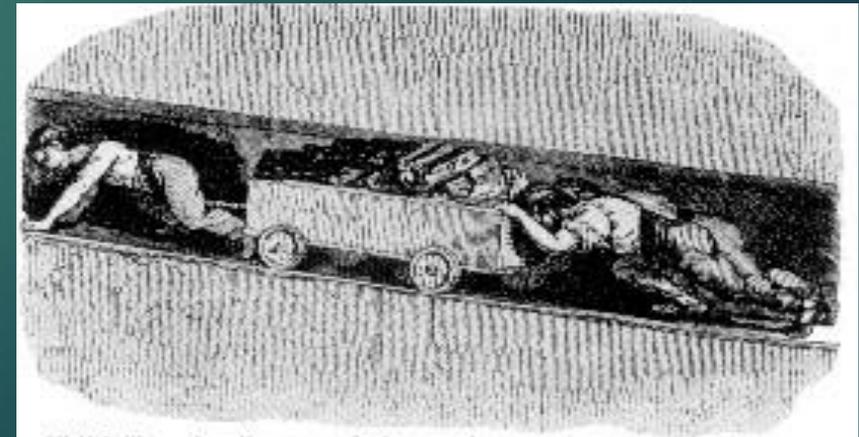
Industrial city

With the invention of the steam-engine, factories by the 1760th. Businessmen tended to build factories where there was a good supply of labour.

The Industrial Revolution also led to an extraordinary rise in the rate of population growth. And a moving of these population to the industrial cities



Industrial city



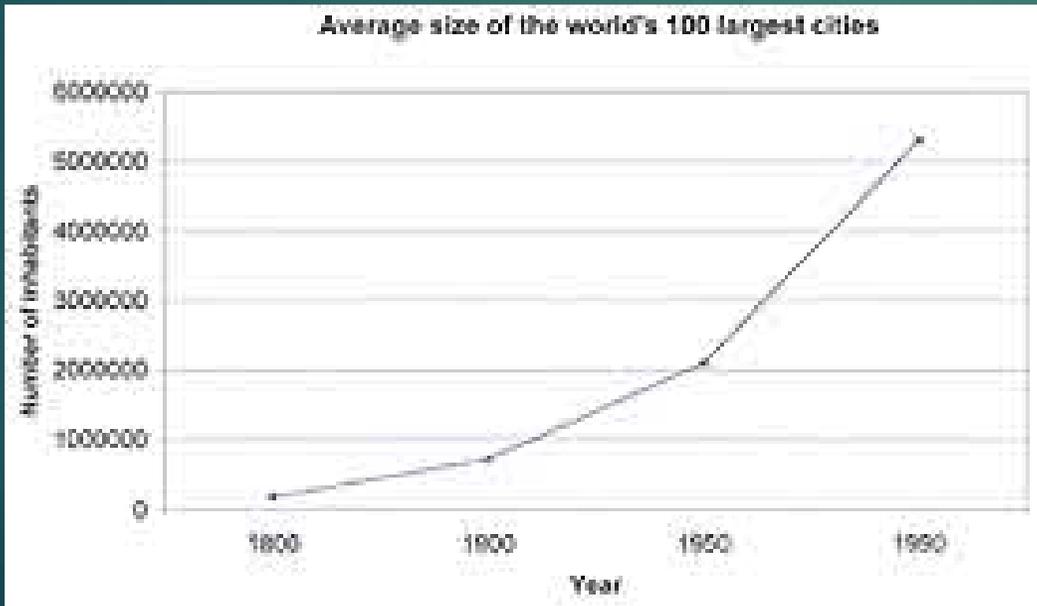
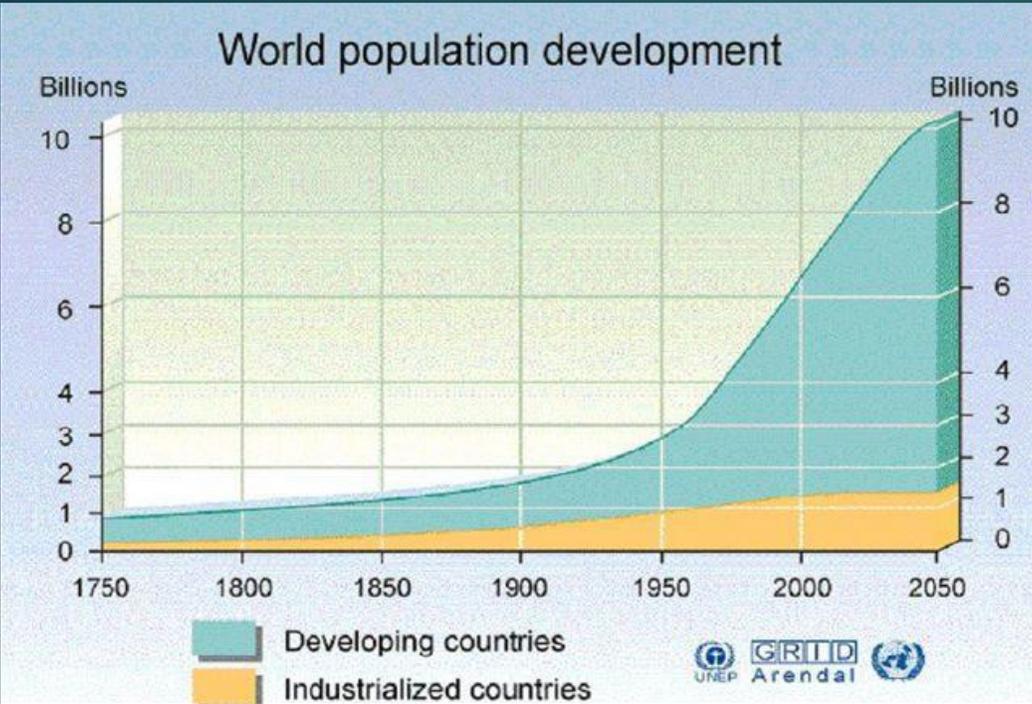


Early English industrial town, Staffordshire.

Coal town

- ▶ Working Conditions
- ▶ Living Conditions
- ▶ Urbanization
- ▶ Public Health and Life Expectancy
- ▶ Child Labour
- ▶ Working Class Families and the Role of Women
- ▶ The Emerging Middle Class
- ▶ Wealth and Income





The rapid increasing in population and cities

Philosophy of urban subdivision



1. Size- Types of districts



2. Boundaries



3. Internal & external hierarchy



4. Facilities

Purpose of Urban Hierarchy



- ▶ To make the people socialize with one another.
- ▶ To enable the inhabitants to share the public amenities and recreational facilities.
- ▶ To support a healthy environment within the district.
- ▶ To provide safety and efficiency to road users and pedestrians.
- ▶ To maintain, enhance, and improve area for recreational activities.
- ▶ To determine community's prospects for the future.

Utopia and Utopianism

TOWN

POSITIVE ASPECTS

- Social opportunity.
- Isolation of crowds.
- Places of amusement.
- Chances of employment.
- High money wages.
- Well-lit streets.
- Palatial edifices.

NEGATIVE ASPECTS

- Closing out of nature.
- High rents & prices.
- Foul air and Murky sky.
- Slums & gin palaces.
- Costly drainage.

COUNTRY

POSITIVE ASPECTS

- Beauty of nature.
- Land lying idle.
- Wood, meadow, forest.
- Fresh air.
- Low rents.
- Abundance of water.
- Bright sunshine.

NEGATIVE ASPECTS

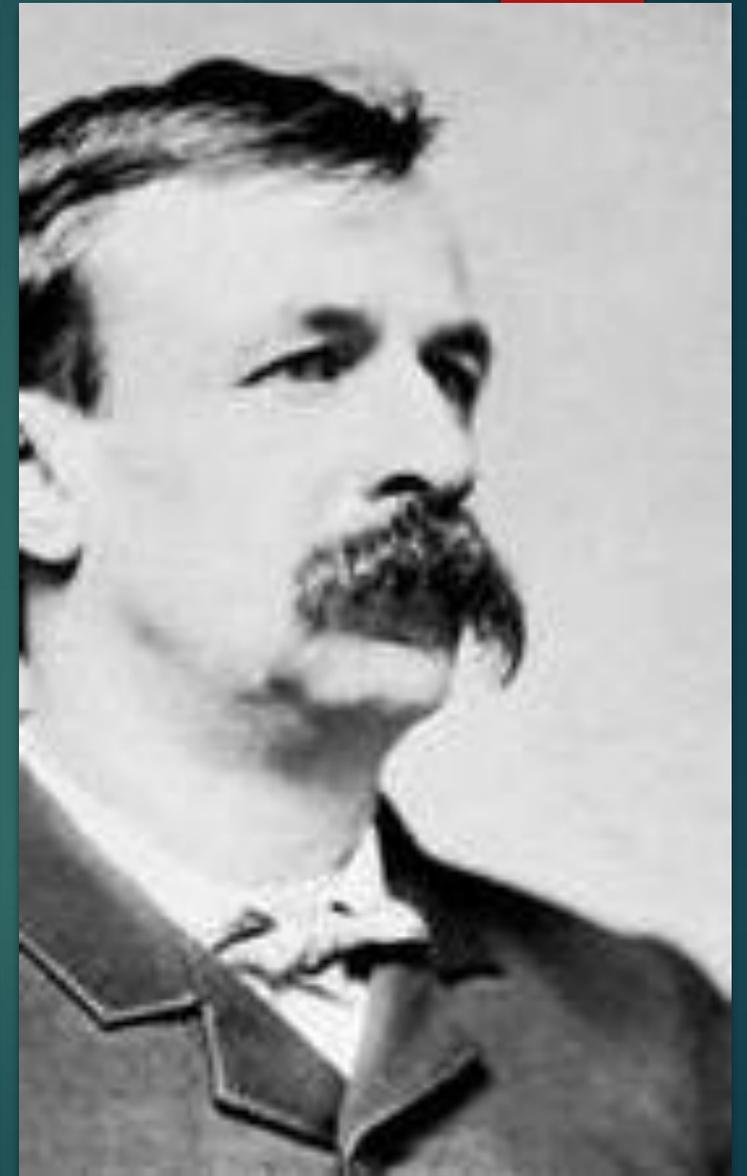
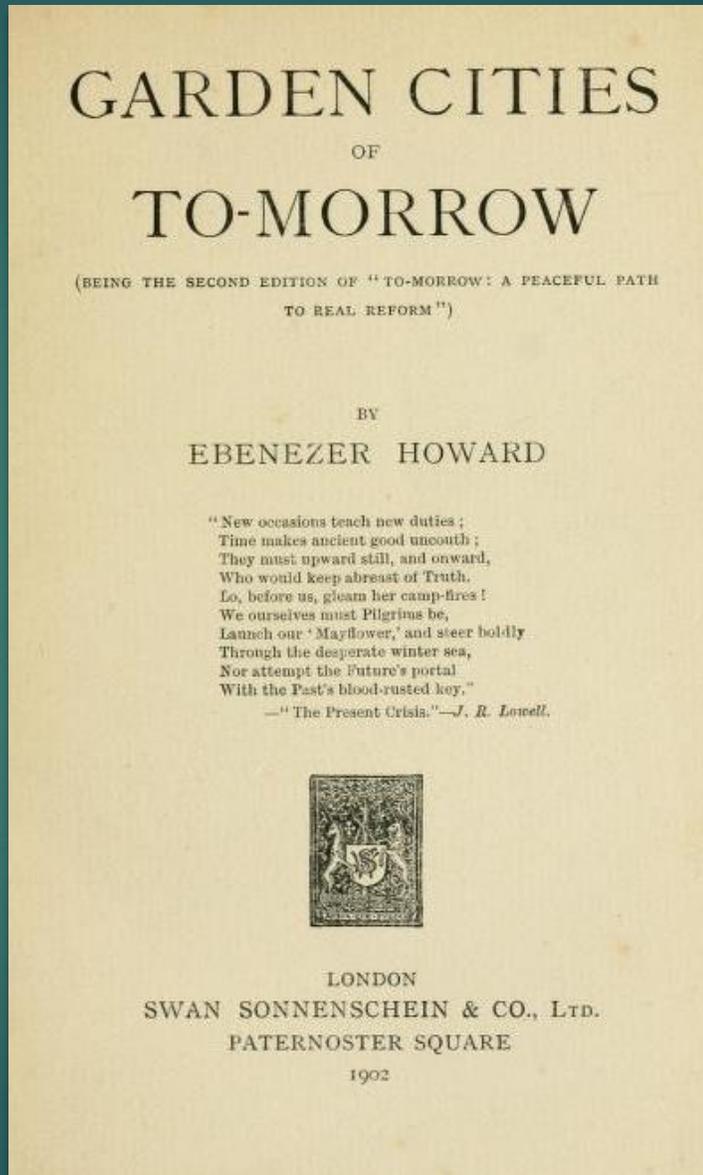
- Lack of society
- Hands out of work.
- Trespassers beware.
- Low wages.
- Lack of drainage.
- Lack of amusement.
- No public spirit.
- Need for reform.
- Crowded dwellings.
- Deserted villages.

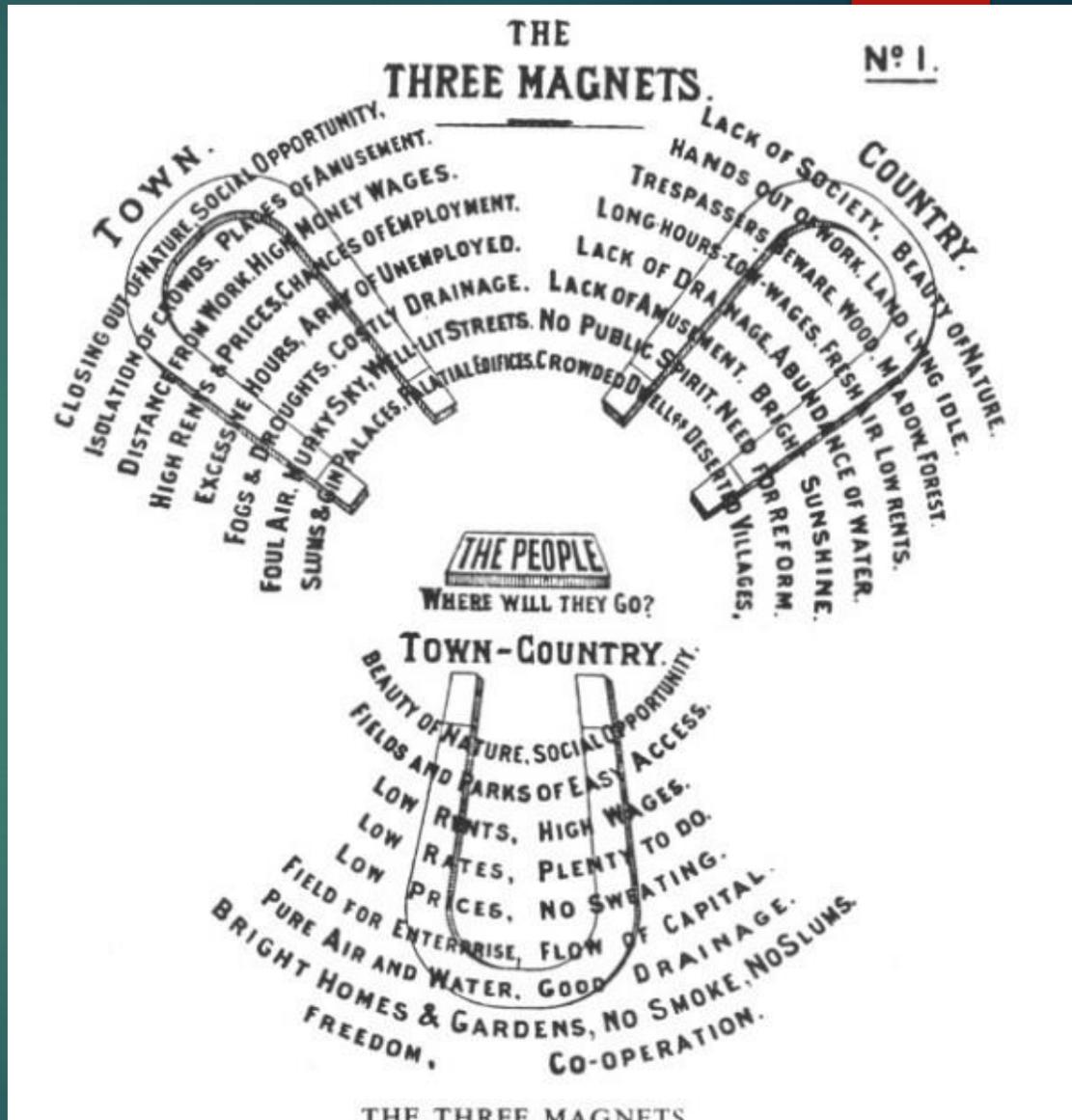
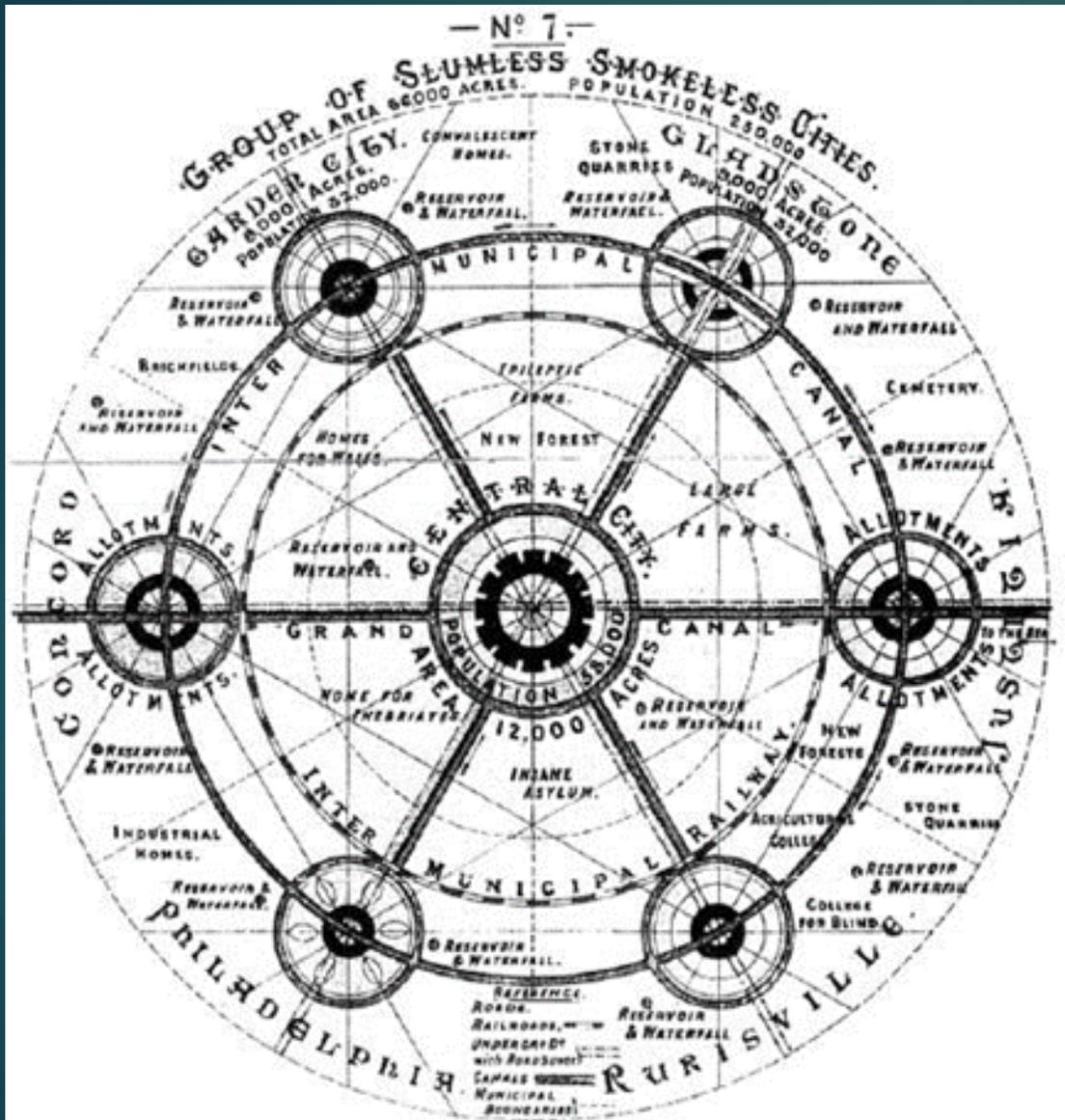
Garden city of tomorrow

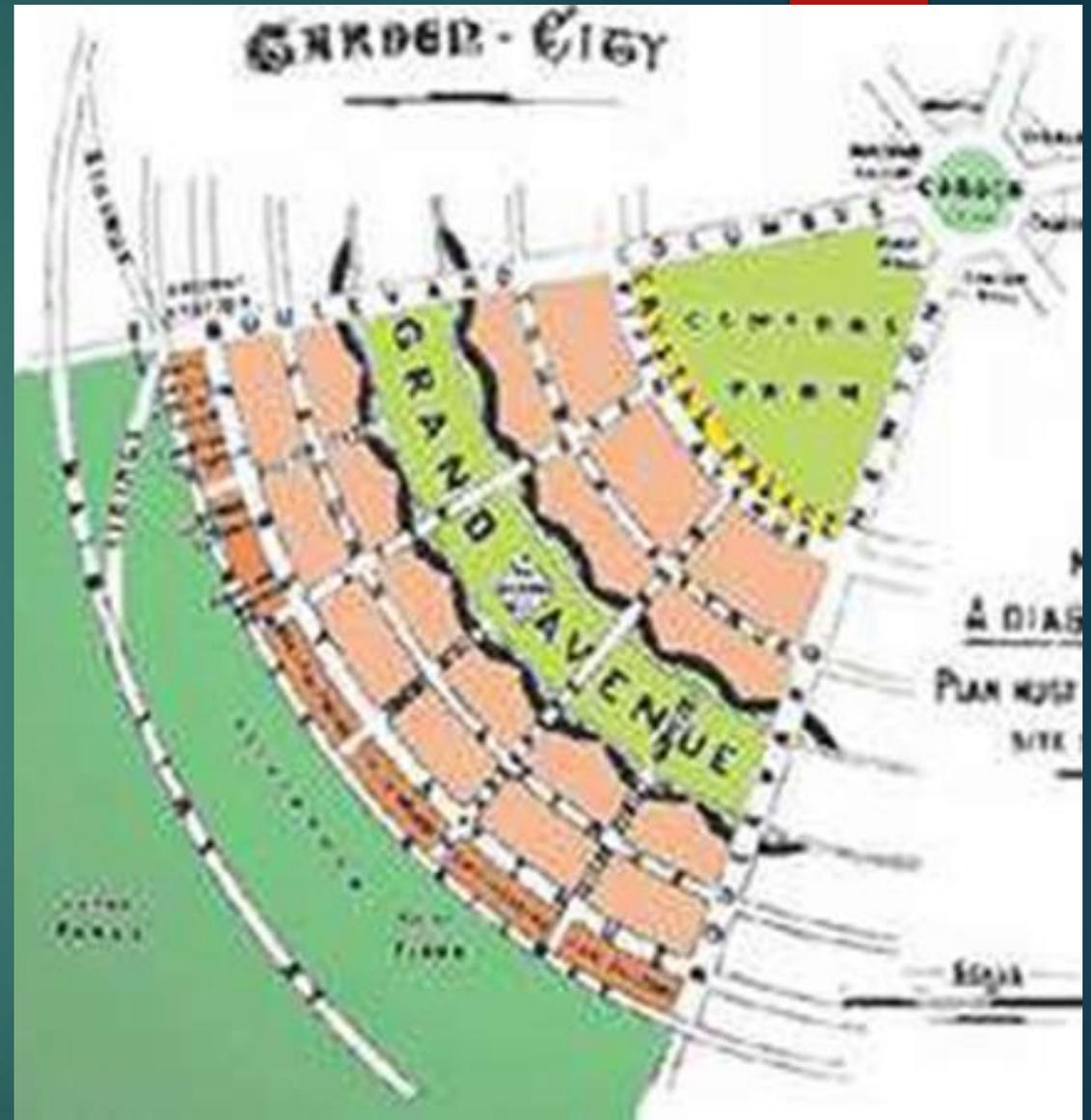
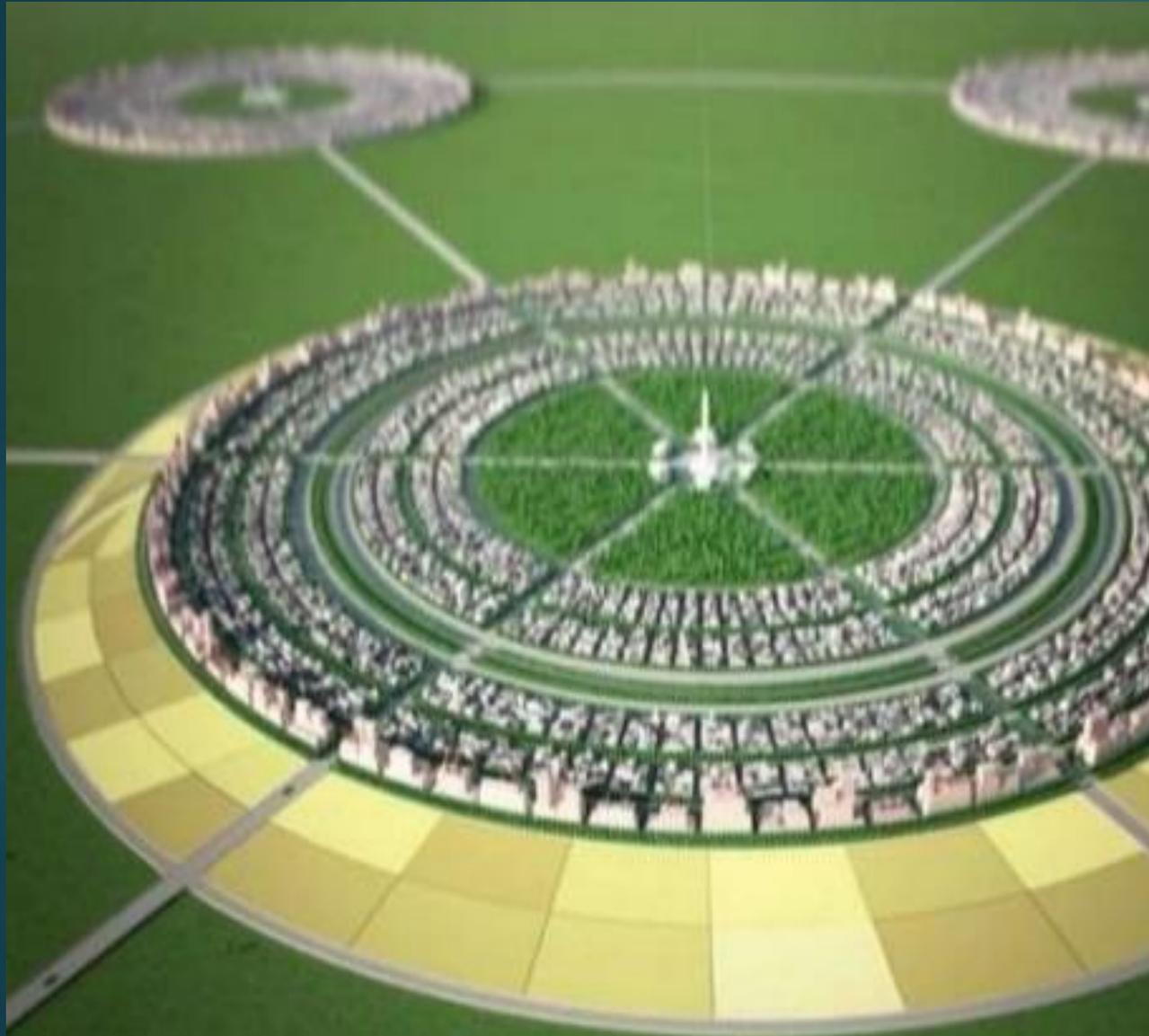
Sir Ebenezer Howard 1902

The founding of the garden
city movement

The first garden cities
proposed were
Letchworth at 1903
and then Welwyn at
1920







Urban planning

The art and science of ordering the use of land and siting of buildings and communication routes so as to implement the maximum the degree of economy, convenience, and beauty.



Planning

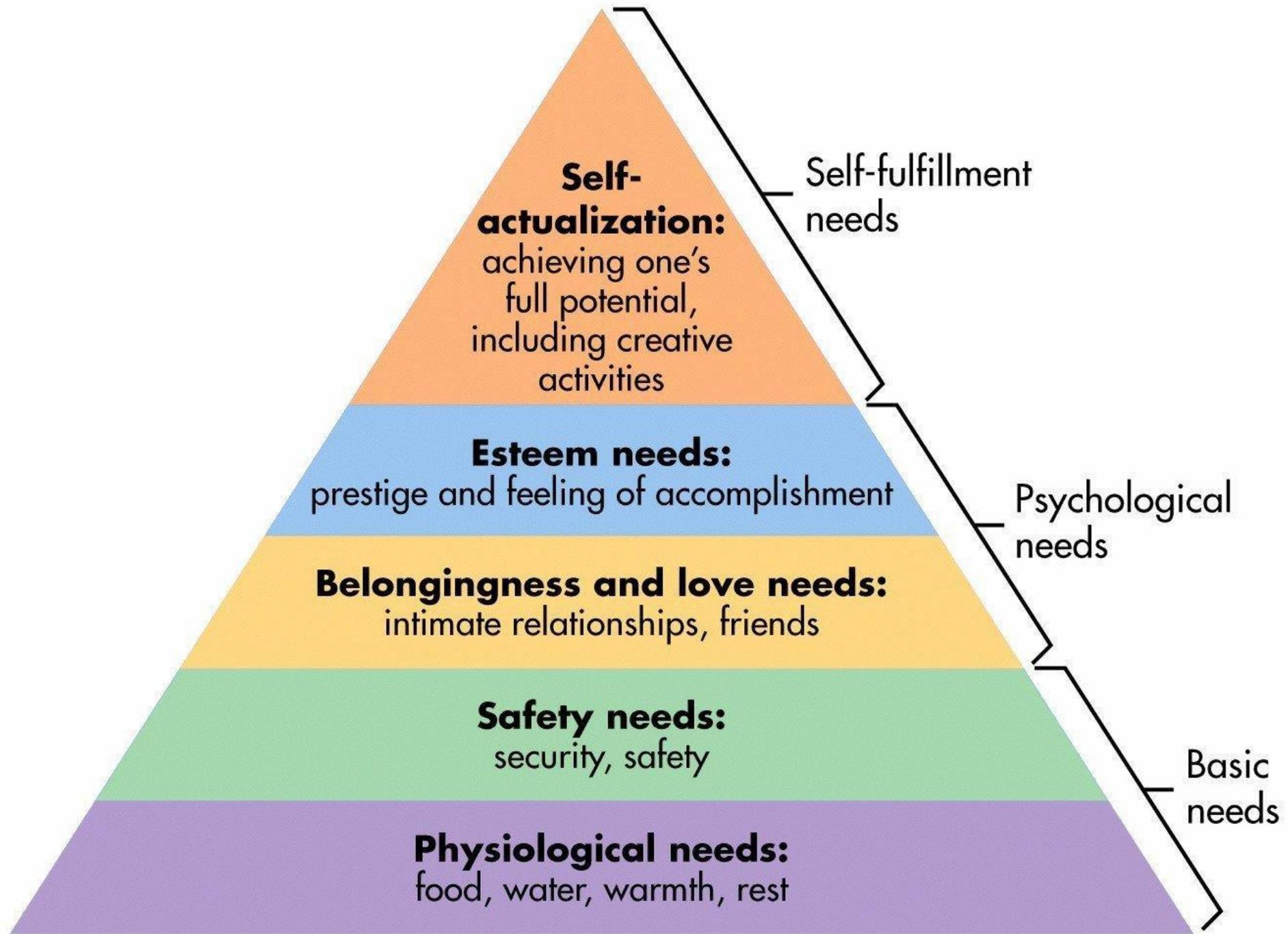
A basic management function involving formulation of one or more detailed plans to achieve optimum balance of needs or demands with the available resources

The planning process involve:

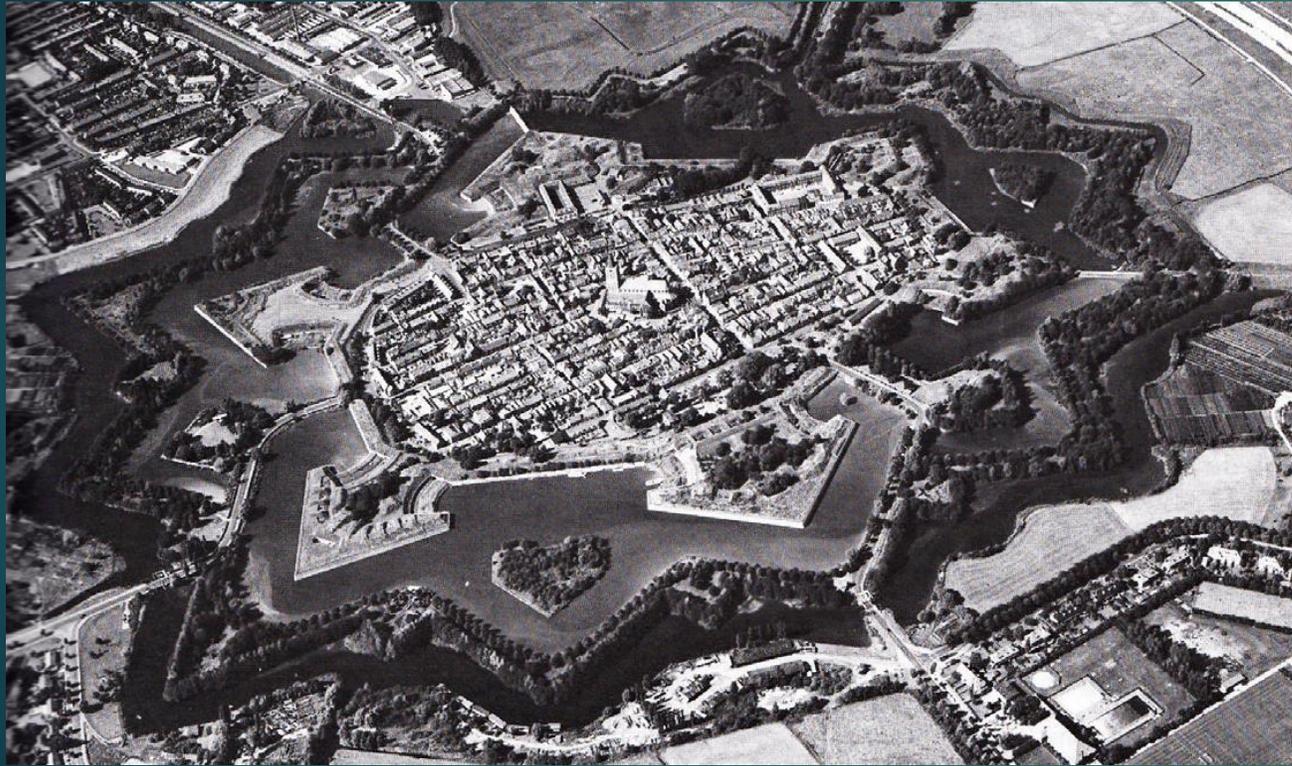
- ▶ Identifies the goals or objectives to be achieved
- ▶ Formulates strategies to achieve them
- ▶ Arranges or creates the means required
- ▶ Implements, directs, and monitors all steps in their proper sequence



Maslow Pyramid of needs



Using private car





Neighborhood
unit Clarence
Perry 1929

Philosophy of neighborhood unit

limited population size

School at the center

Place arterial streets out of the district

Design internal streets using a hierarchy

Restrict local shopping areas to the edge

Offer at least 10 percent of the neighborhood
land area to parks and open space

Hierarchy of urban housing

Criteria:

According to no. of inhabitations

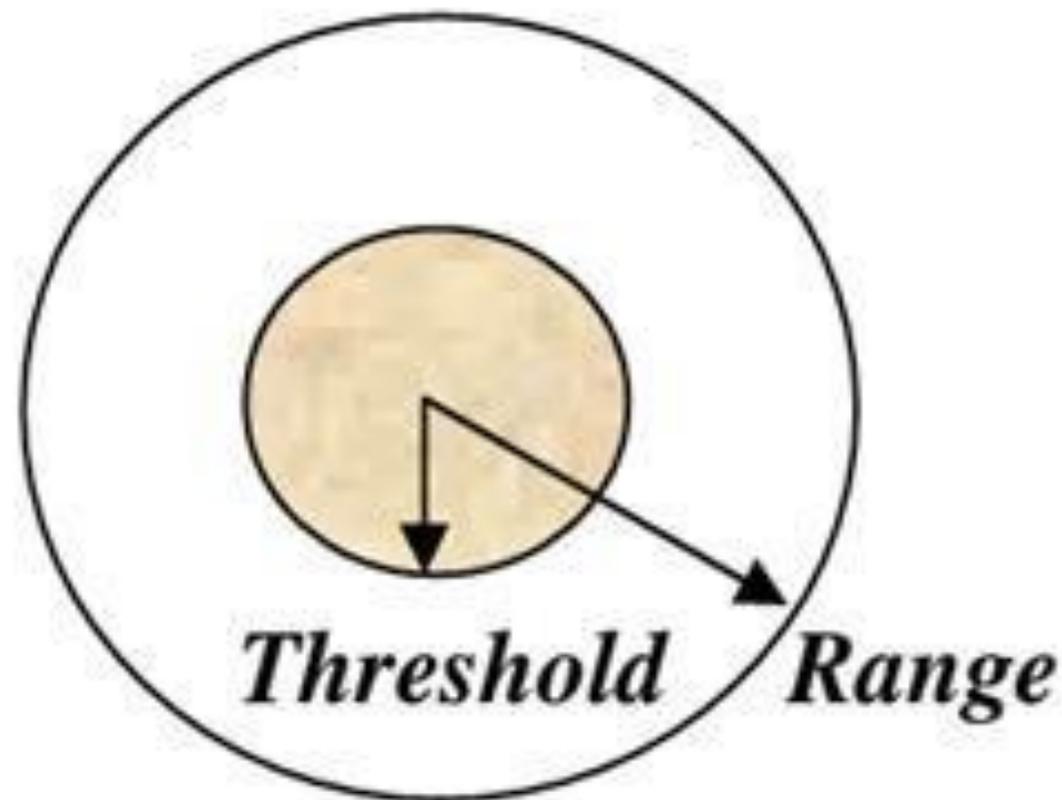
According to range and threshold of services

According to the relationship between parts

According to walking distance

Goal:

Highrise the living quality



Neighborhood unit

School at the center

Place arterial streets out of the district

Design internal streets using a hierarchy

Restrict local shopping areas to the edge

Dedicate at least 10 percent of the neighborhood land area to parks and open space



Concerning of Neighborhood Unit



SIZE



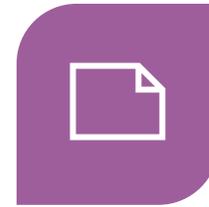
BOUNDARIES



PROTECTIVE
SITE



INTERNAL
STREETS



LAYOUT OF
BUILDINGS



FACILITIES

Size

- ▶ The town is divided into self-contained units or sectors of particular no of population.
- ▶ This is further divided into smaller units called neighborhood unit with smaller no of population on the requirement of one primary school.
- ▶ The size of the unit is therefore limited to about 1 to 1.5 sq km i.e. within walkable distance of 10 to 15 minutes

Boundaries and Protective Strips

- ▶ The unit should be bounded on all its sides by main road, wide enough for traffic.
- ▶ These are necessary to protect the neighborhood from annoyance of traffic and, to provide suitable facilities for developing parks, playgrounds, and road widening scheme in future. These are also called Minor Green Belts.

Internal Streets

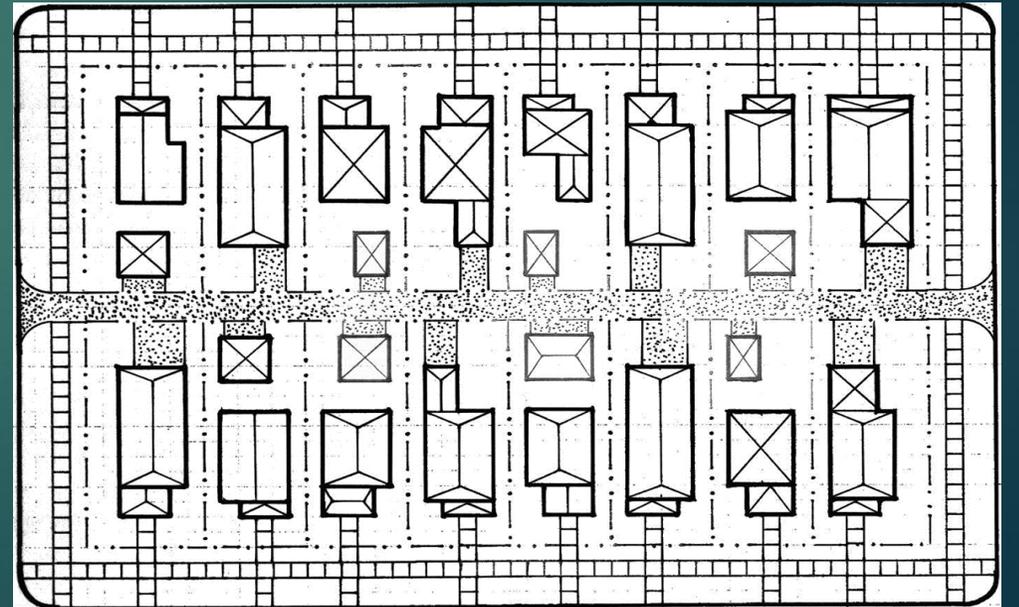
- ▶ The internal streets are designed to ensure safety to the people and the school going children in particular, since the mothers are worried every day till the safe return of the child.
- ▶ The internal streets should circulate throughout the unit with easy access to shops and community centers.

Safety of pedestrian

To prevent
through traffic
inside housing
district (grid iron)



- Using hierarchy in streets
- Using dead end inner street and (cal de sac) streets or big loop streets
- Separation in between pedestrian (walk way) and traffic (car way)



Layout of Buildings

To encourage neighborhood relation and secure social stability and balance, houses to suit the different income group should be provided such as single family houses, double family houses, cottages, flats, etc.

Facilities



All public facilities required for the family for their comfort and convenience should be within easy reach.



These include the primary school, religious facility, club, retail shop, sport center, etc.



These should be located within 1km in the central place so as to form a nucleus to develop social life of the unit.