



CMC 515 URBAN PLANNING

ASSOCIATED PROFESSOR/ MONA Y. SHEDID

LECTURE 7: CITY STRUCTUE

CITY STRUCTURE ????



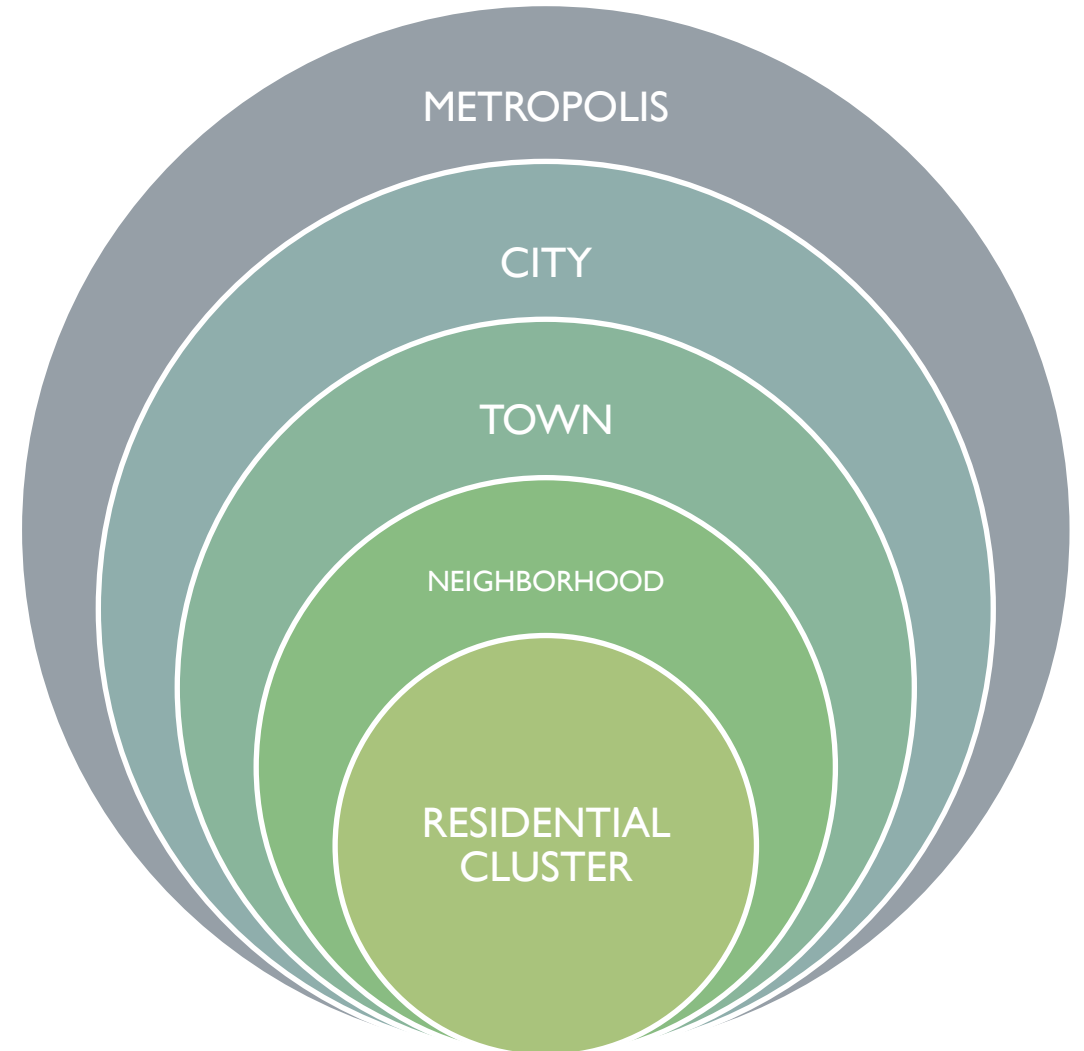
CONTENT

- INTRODUCTION
- URBAN HIERARCHY
- LAND USE
- NEIGHBORHOOD
- ASSIGNMENT 3

URBAN HIERARCHY

➤ DEFINITION OF URBAN HIERARCHY

A ranking of settlements according to their **size**, **economic status**, and **functional complexity**.

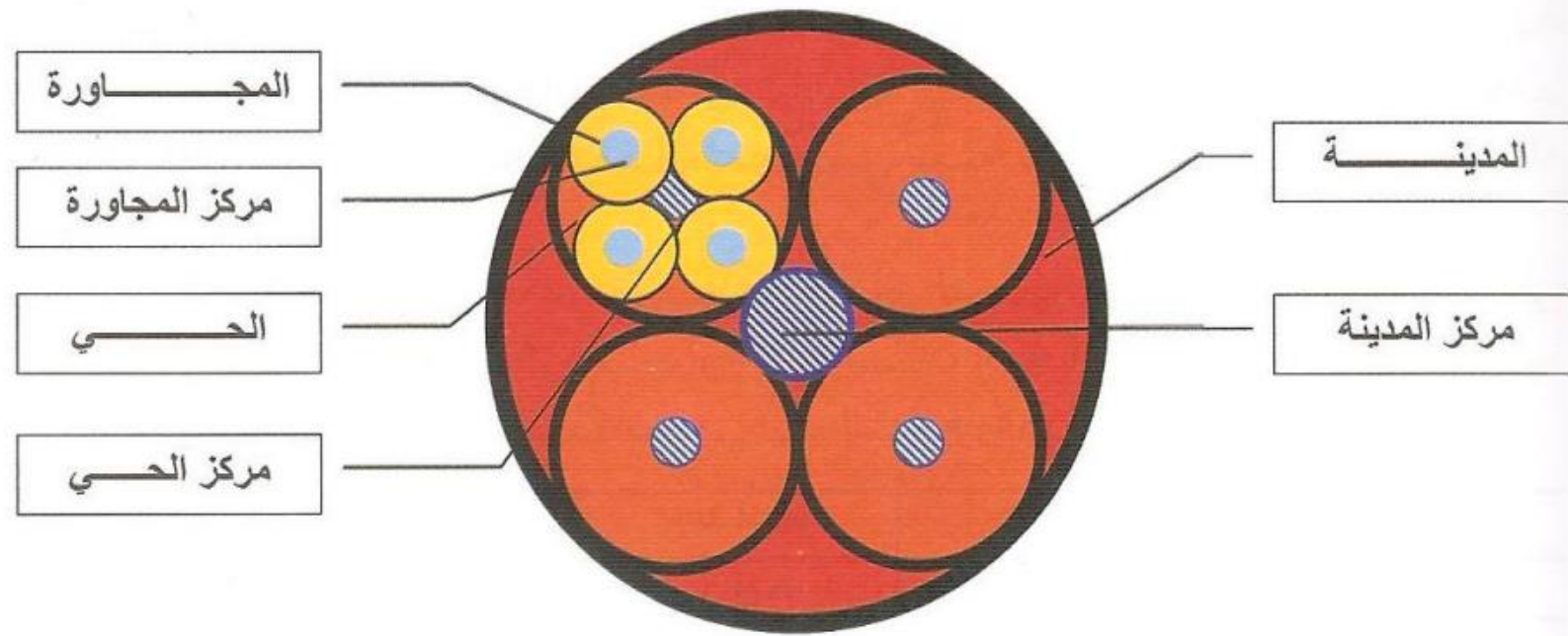


URBAN HIERARCHY

➤ NEIGHBORHOOD

It is a **small unit** which **serves the local community** and encourage them.

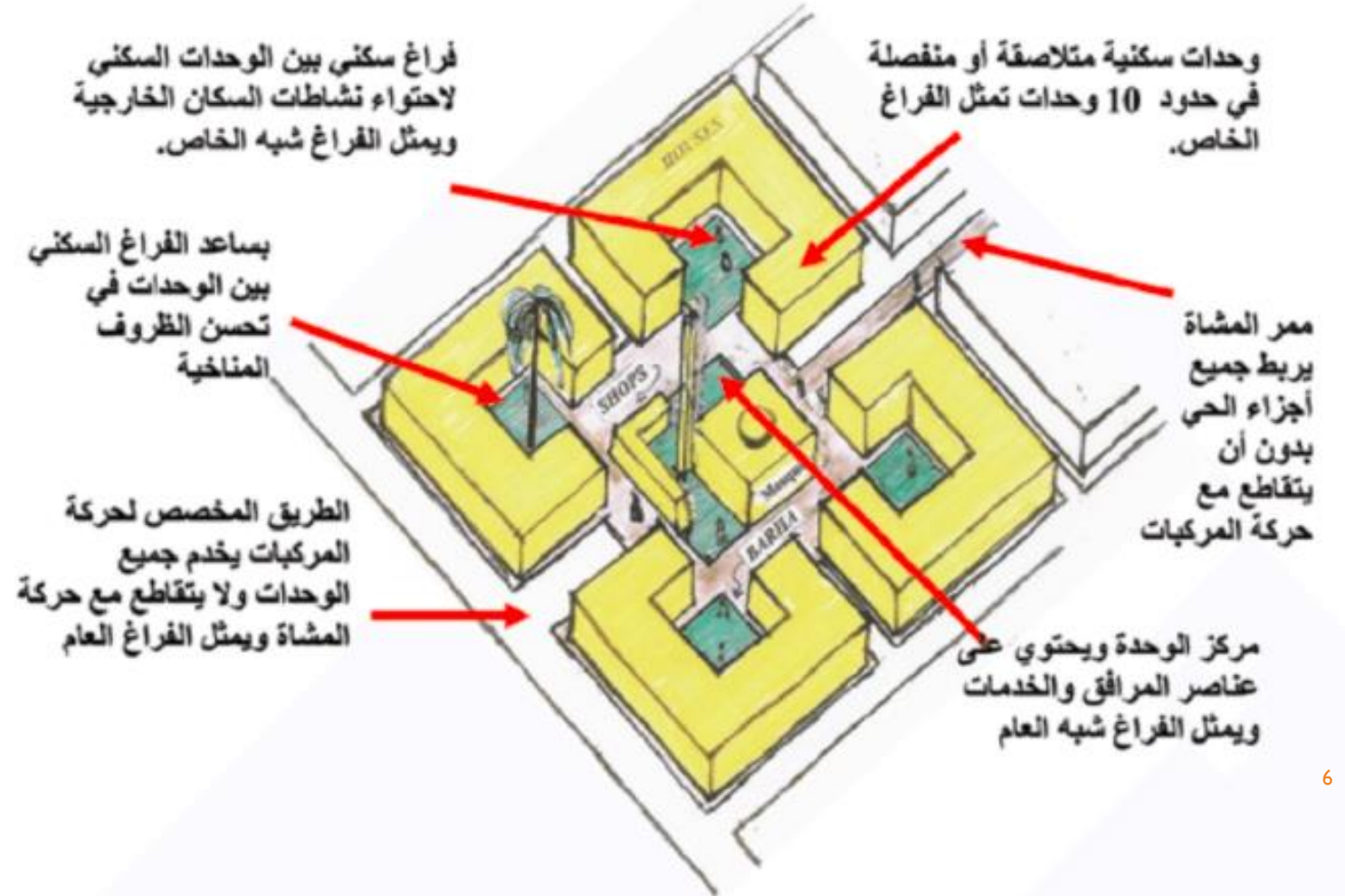
As a planning concept evolved in response to the environmental and social conditions fostered as a consequence of industrial revolution in the early **1900s**.



URBAN HIERARCHY

➤ RESIDENTIAL CLUSTER

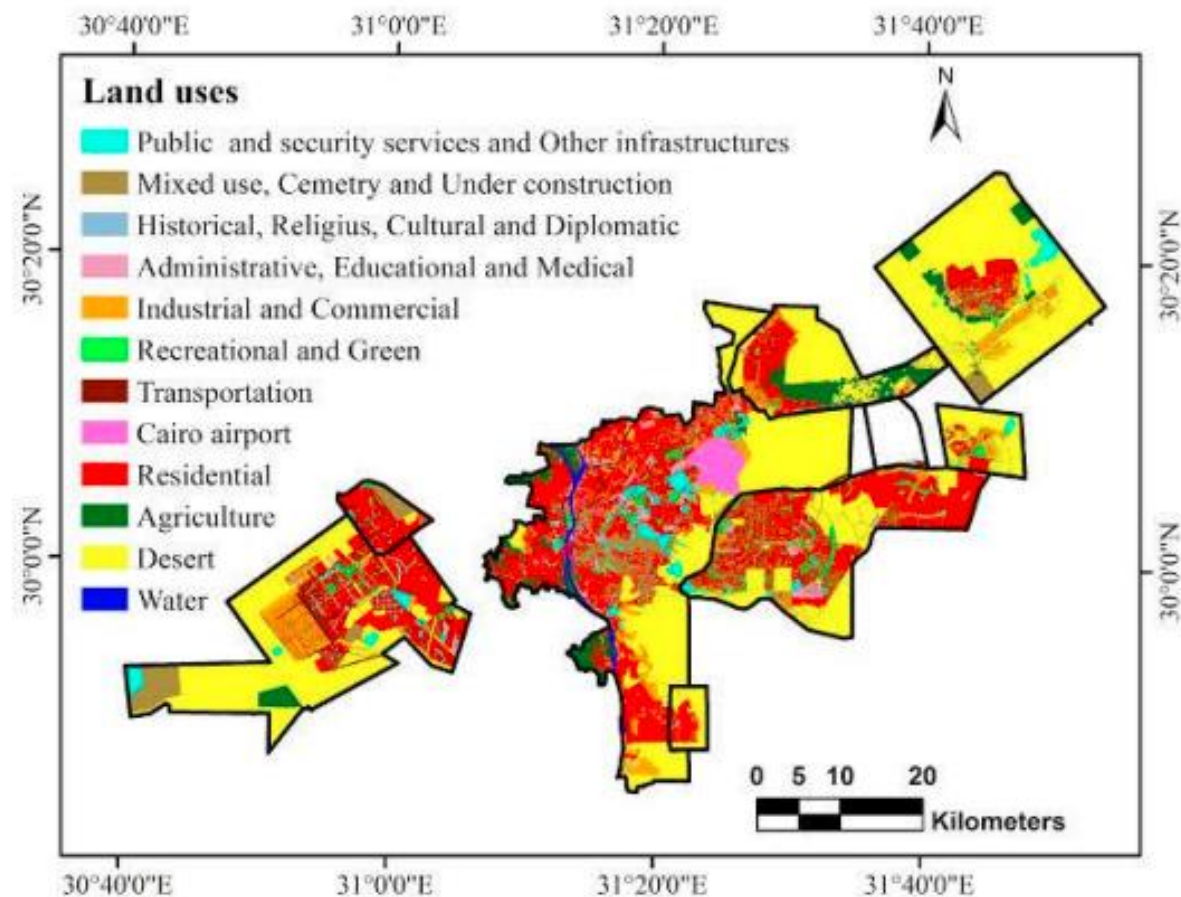
1. Lowest level of settlements.
2. Plots or dwelling units or housing grouped around an open space.
3. Should not be very large.



LAND USE

➤ DEFINITION

Assigning specific area(s) for each activity in city.



LAND USE

TYPES OF LAND USE

SERVICES

COMMERCIAL

EDUCATIONAL

HEALTH

ADMINISTRATIO
N

CULTURAL

SOCIAL

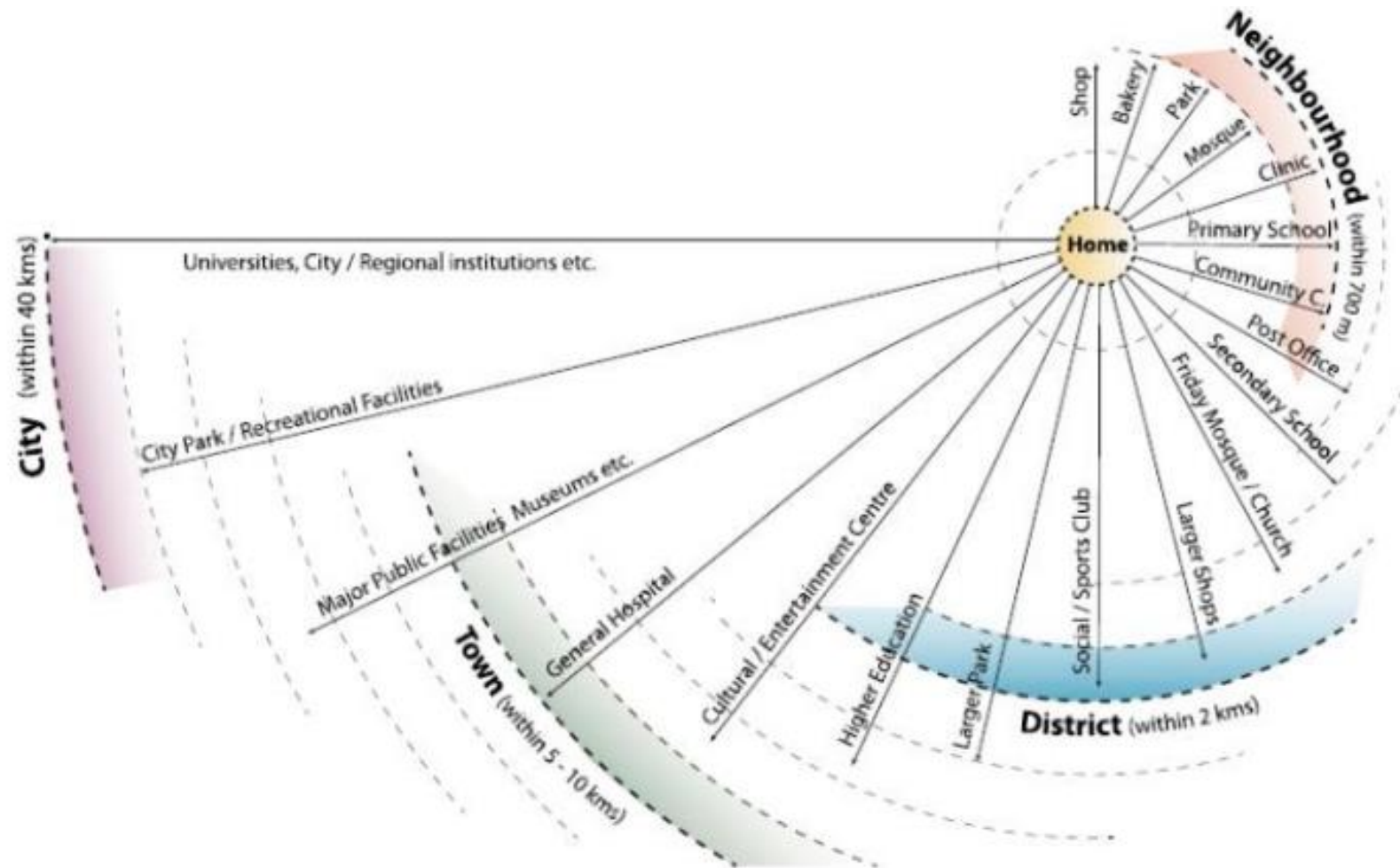
RELIGIOUS

ENTERTAINMEN
T

LAND USE

Services	Neighborhood	Town	City
Commercial	Kiosks/ Shops	Super market	Mall/ Hyper market
Educational	Elementary school	High school	University
Health	--	Clinic	Specialized Hospital
Administration	--	Post Office/ Police Station	Government Offices
Cultural	--	Library	Opera house/ Culture center
Social	--	Social services	Orphanage
Religious	Mosque	Mosque	Islamic Center/ Church
Entertainment	Play ground	Sport Club	Stadium Club

LAND USE



NEIGHBORHOOD UNIT PLAN

➤ WHAT IS A NEIGHBORHOOD UNIT PLAN?

It is the effort to create a residential neighborhood to meet the **needs of family life**.



❖ **Characterized by six factors:**

1. A centrally located elementary school (easy walking distance).
2. A child need not cross traffic streets on the way to school.
3. A convenient transportation.
4. A shopping center.
5. Parks and playgrounds.
6. A residential environment with harmonious architecture.

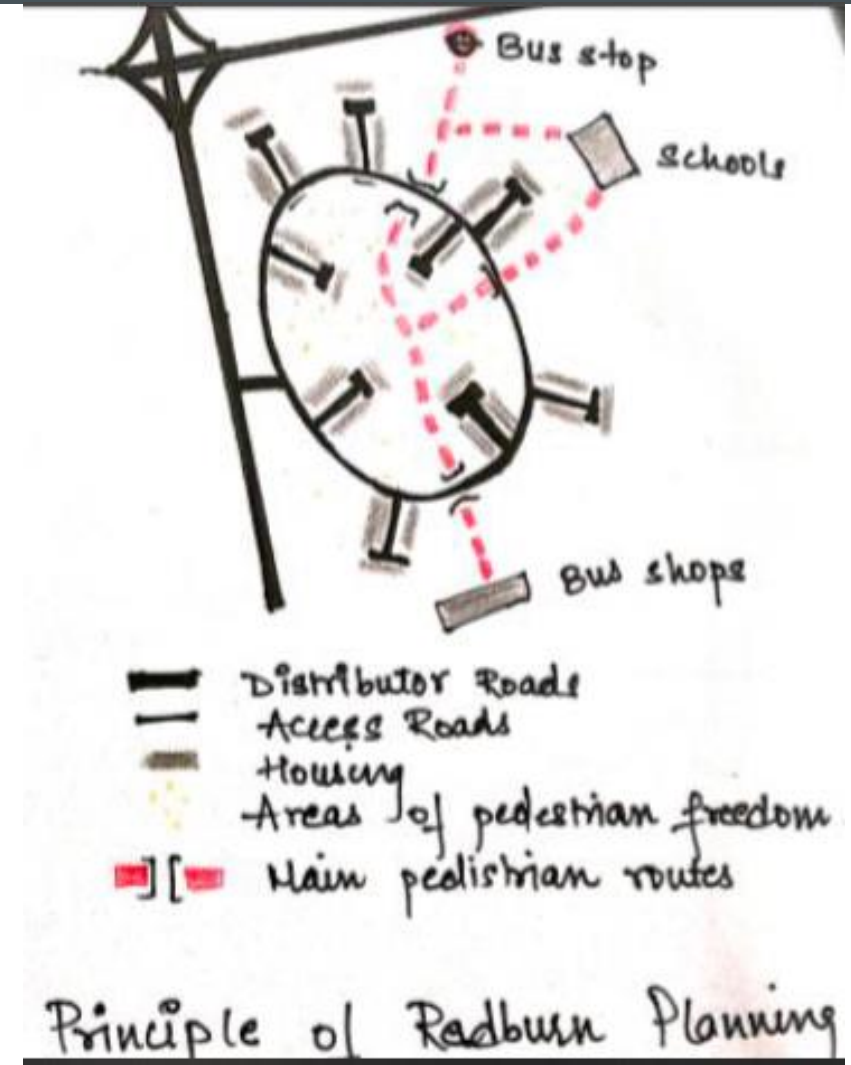


NEIGHBORHOOD UNIT PLAN

➤ THE ORIGINAL NEIGHBORHOOD CONCEPTS BY RADBURN

❖ OBJECTIVES:

1. To promote **environmental consideration** (open spaces, arrange buildings and grounds as to give sunlight,..).
2. Providing **self-contained settlement** (providing playgrounds, schools, theaters, public buildings, stores,...)
3. Putting **factories**.
4. Providing **health requirements**.



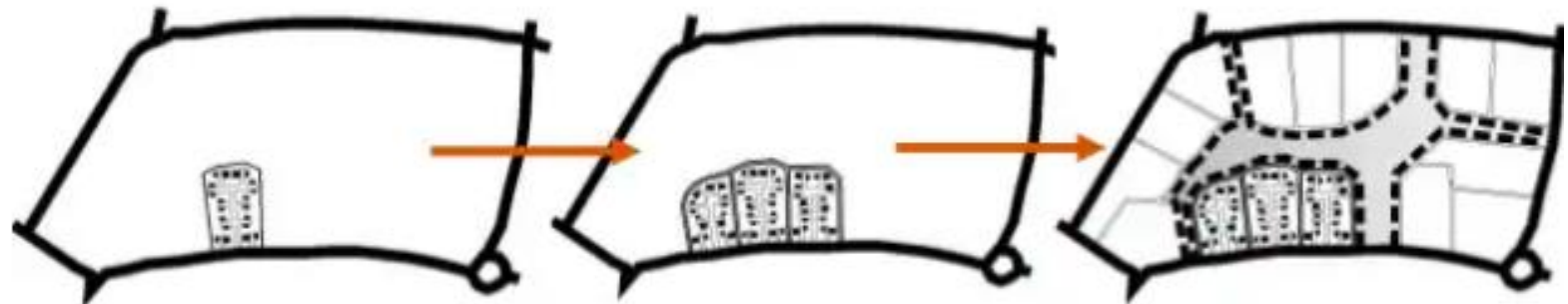
NEIGHBORHOOD UNIT PLAN

➤ THE ORIGINAL NEIGHBORHOOD CONCEPTS

The design of the Radburn neighborhood was in essence a hierarchical one comprising four levels.



1. Enclave
2. Block
3. Superblock
4. Neighborhood



NEIGHBORHOOD UNIT PLAN

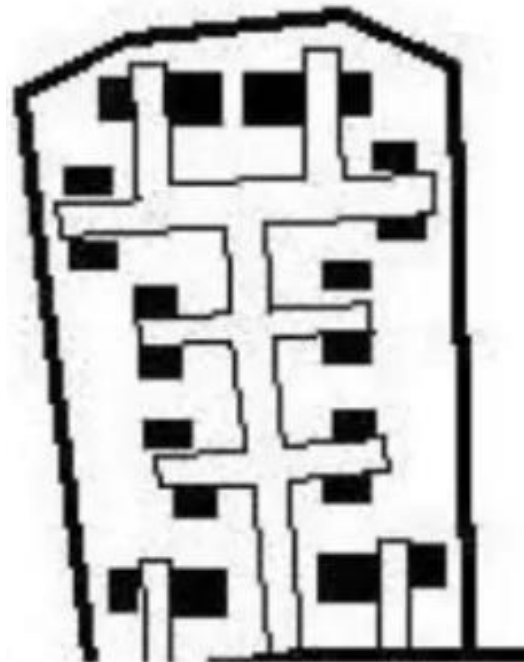
➤ THE ORIGINAL NEIGHBORHOOD CONCEPTS

The design of the Radburn neighborhood was in essence a hierarchical one comprising four levels.



❖ ENCLAVE:

1. The fundamental component was an enclave of 20 houses.
2. The houses were arrayed in a U-formation (short vehicle street called a lane, cul-de-sac with access to individual garages.
3. A garden in front of each house.



NEIGHBORHOOD UNIT PLAN

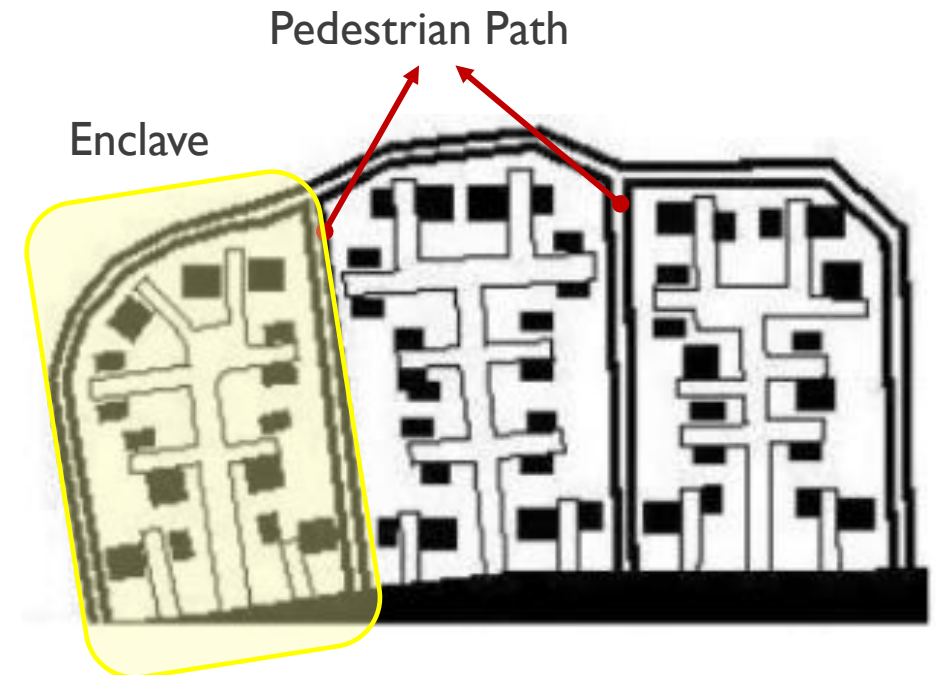
➤ THE ORIGINAL NEIGHBORHOOD CONCEPTS

The design of the Radburn neighborhood was in essence a hierarchical one comprising four levels.



❖ BLOCK:

1. **Three or more of** these enclaves were lined together to form a block.
2. Enclaves within the block were separated from one another by a pedestrian pathway.
3. The blocks four in number, were arranged the sides of central parkway (open green space).



NEIGHBORHOOD UNIT PLAN

➤ THE ORIGINAL NEIGHBORHOOD CONCEPTS

The design of the Radburn neighborhood was in essence a hierarchical one comprising four levels.



❖ **SUPERBLOCK:**

- The clustered **5 blocks** together with the central parkway.



NEIGHBORHOOD UNIT PLAN

The design of the Radburn neighborhood was in essence a hierarchical one comprising four levels.



❖ NEIGHBORHOOD:

1. Four to **six superblocks** commonly formed a neighborhood that was bounded by **major streets or natural features**.
2. At the end of the parkway there could be a **small school**.
3. Roads were to be hierarchical.

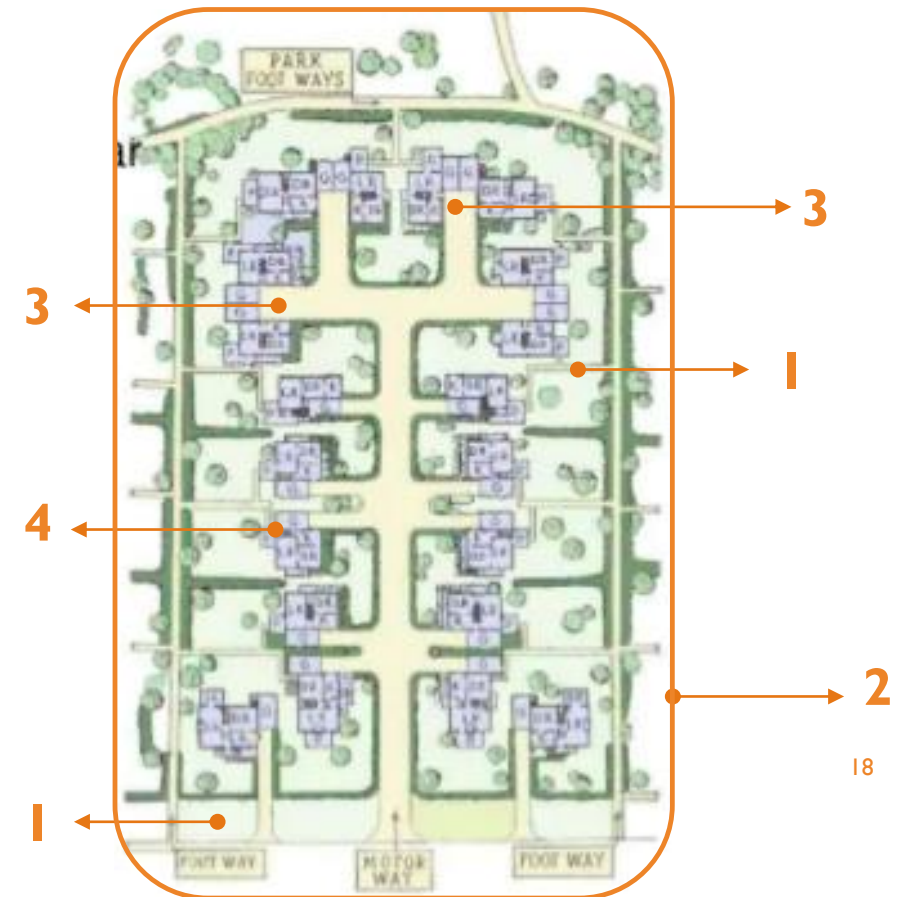


NEIGHBORHOOD UNIT PLAN

➤ THE ORIGINAL NEIGHBORHOOD CONCEPTS BY RADBURN

❖ CONCEPTS:

1. Separation of pedestrian and vehicular movement.
2. Super block (large block) surrounded by main roads.
3. Cul-de-sac's houses grouped around small clusters and each house accessed from the main road.
4. Living room, bedroom faced towards gardens and parks, services areas to roads.
5. Walkways designed such that pedestrians can reach the social places without crossing the automobile.

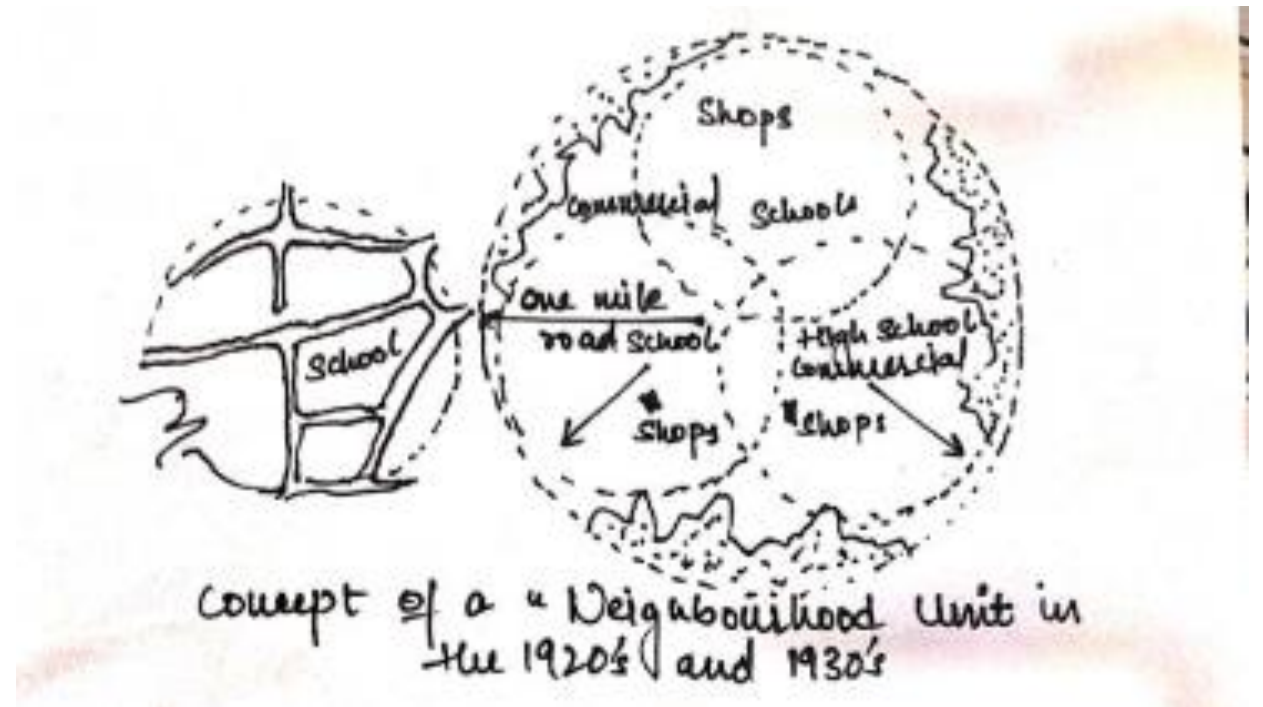


NEIGHBORHOOD UNIT PLAN

➤ THE ORIGINAL NEIGHBORHOOD CONCEPTS BY RADBURN

❖ MAIN FEATURES:

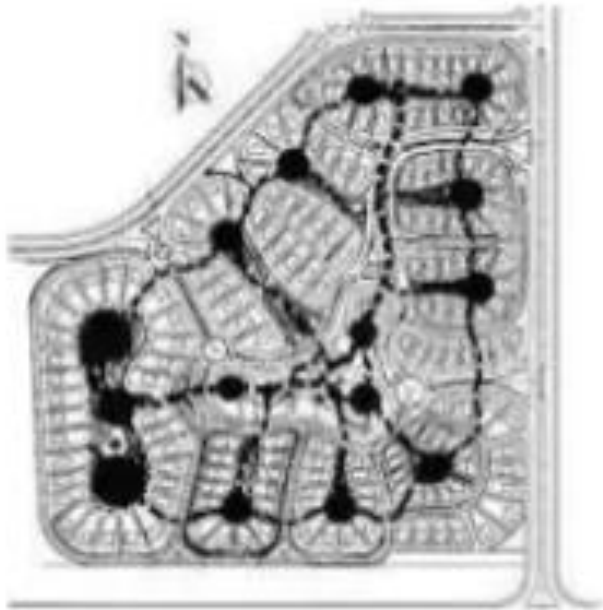
1. Hierarchical transportation systems.
2. Cul-de-sacs
3. Footpath systems
4. Shopping centers
5. Homogeneity
6. Mixed use
7. Interior park
8. Clusters of blocks
9. Clustered superblock
10. Ideal size of 30000 people



NEIGHBORHOOD UNIT PLAN

➤ THE ORIGINAL NEIGHBORHOOD CONCEPTS BY **RADBURN**

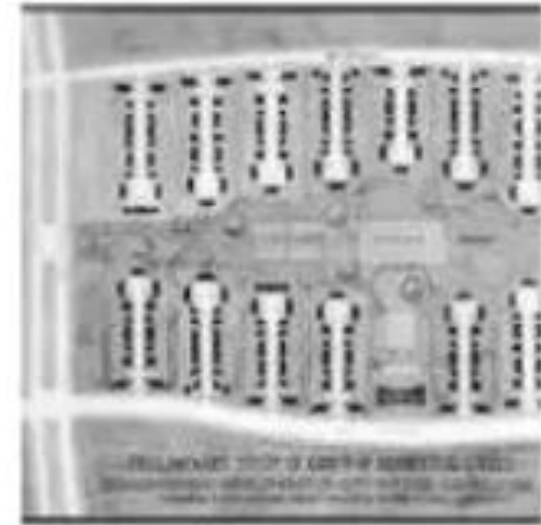
❖ **EXAMPLES:**



Egypt



Chandigarh



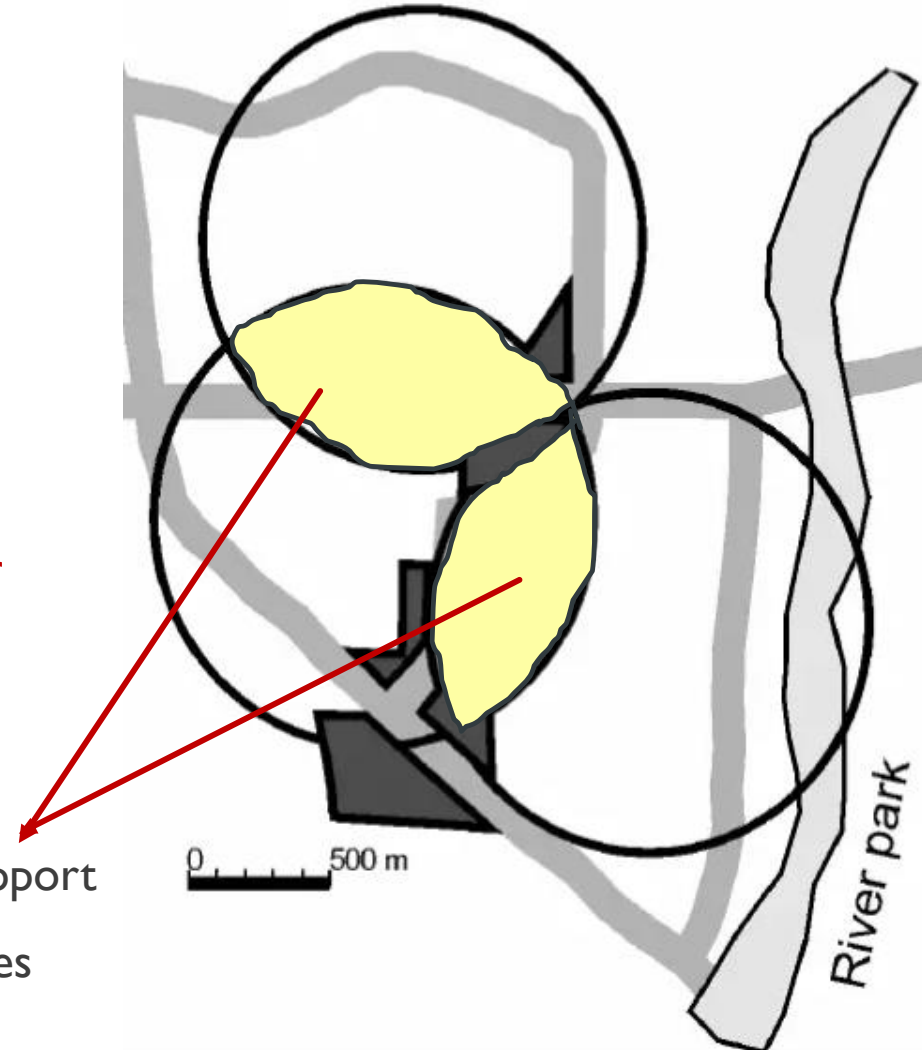
Osaka, Japan

NEIGHBORHOOD UNIT PLAN

➤ OVERLAPPING NEIGHBOURHOODS

Although **Stein and Wright** considered neighborhoods as **each** being relatively **self-contained** they **arranged** them in an **overlapping manner to support joint use of facilities** such as hospitals, high schools, and theatres

Overlapping to support
different facilities

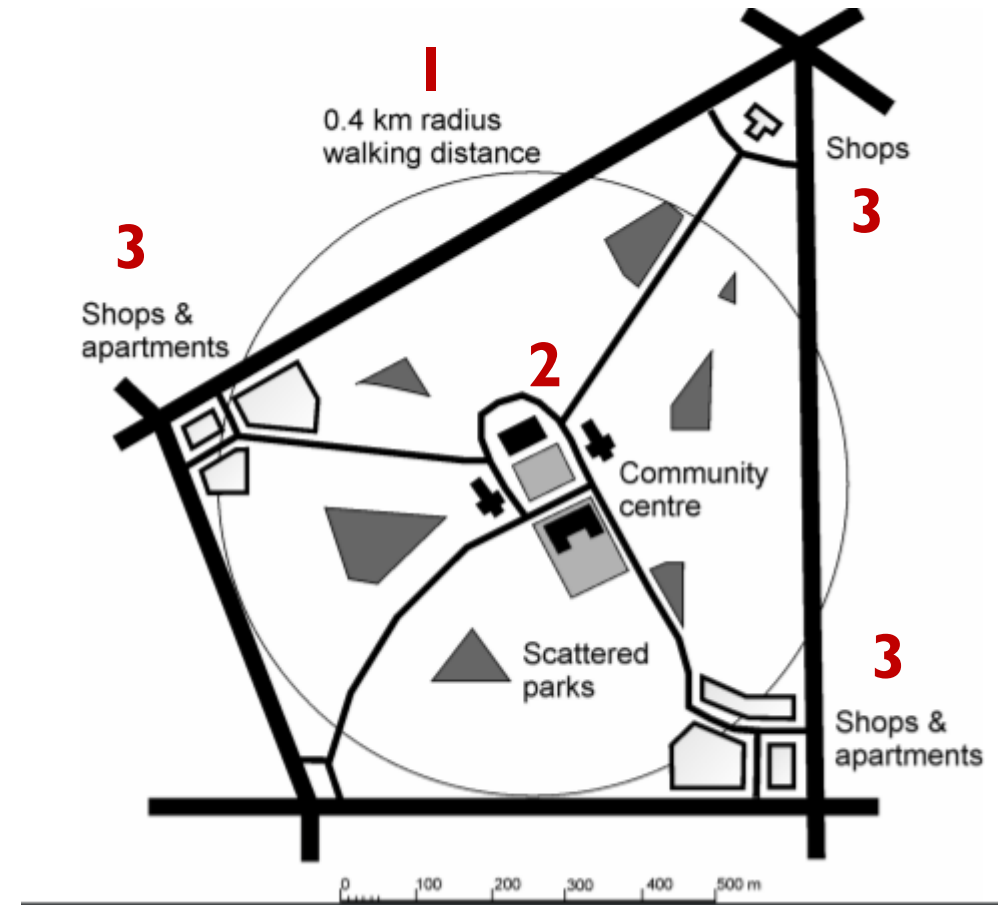


NEIGHBORHOOD UNIT PLAN

➤ THE NEIGHBORHOOD UNIT OF CLARENCE PERRY

Perry identified **six** neighborhood unit design **principles**:

- **First**, ideally a shape (all sides were fairly equidistant from the center, and its size was to be fixed).
- **Secondly**, various institutional sites, including a school, grouped round a central green space.
- **Thirdly**, local shops or shops and apartments were to be located at the outer corners of the neighborhood.

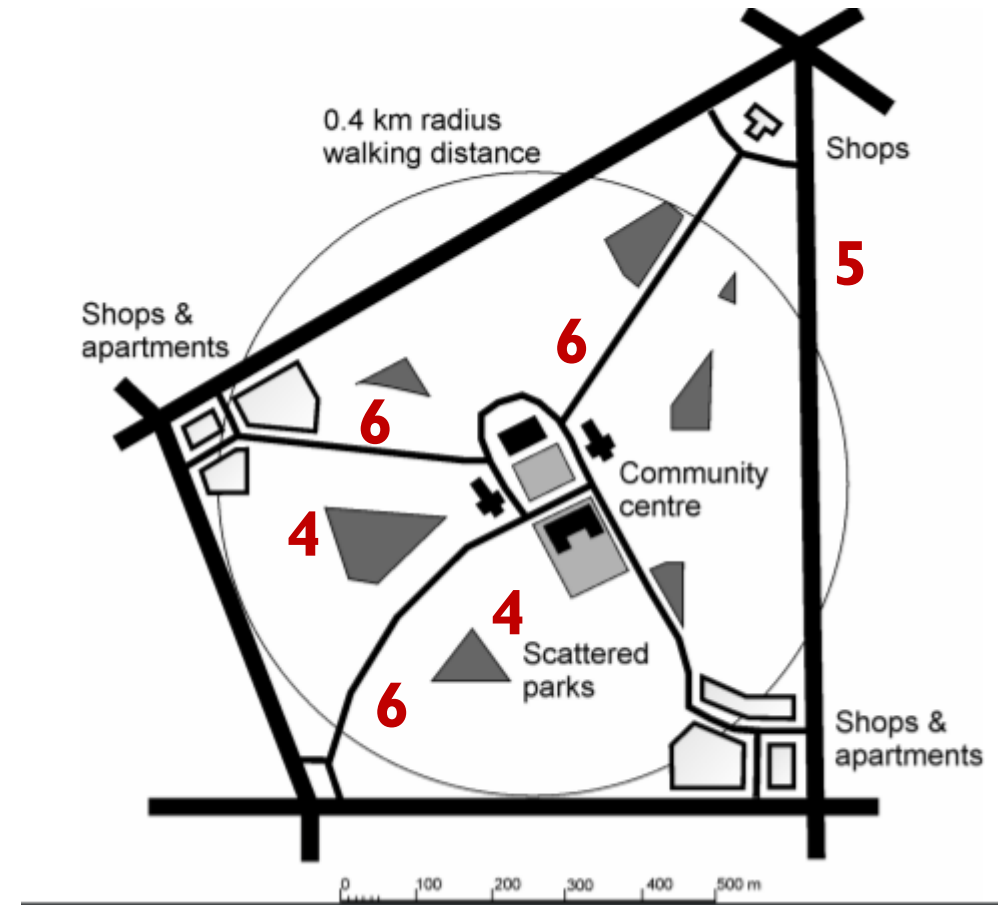


NEIGHBORHOOD UNIT PLAN

➤ THE NEIGHBORHOOD UNIT OF CLARENCE PERRY

Perry identified **six** neighborhood unit design **principles**:

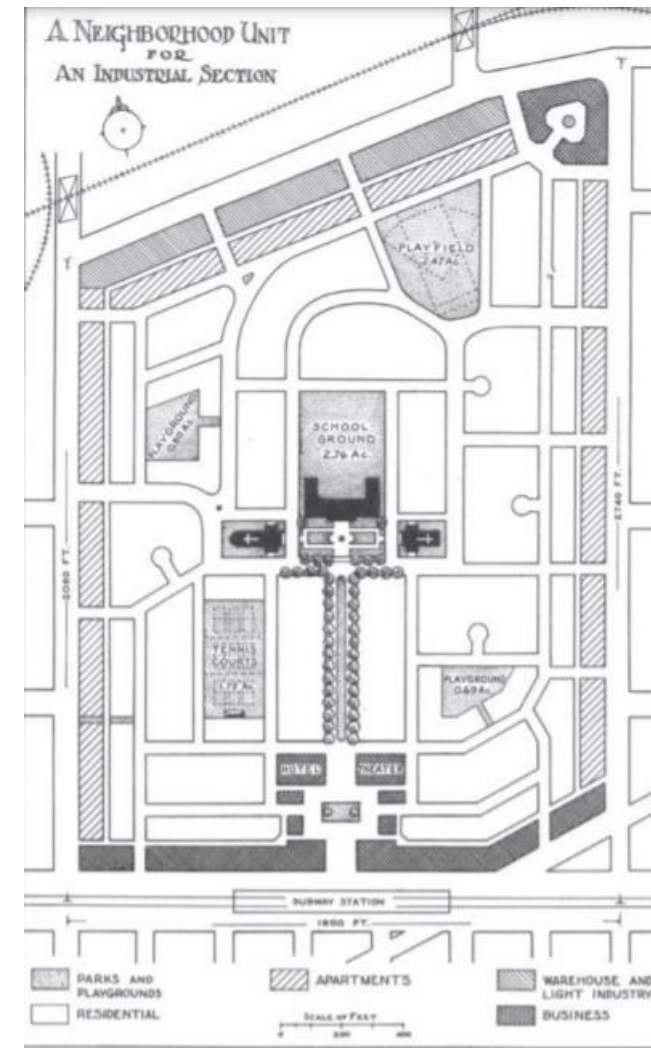
- **Fourthly**, scattered small parks and open spaces.
- **Fifthly**, arterial streets were to bound each side of the neighborhood.
- **Sixthly**, the layout of the internal street was to be a combination of curvilinear and diagonal roads to discourage through traffic. Vehicular and pedestrian traffic was to be segregated.



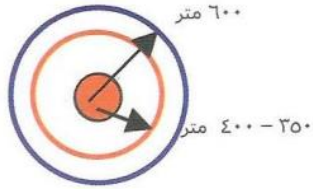
NEIGHBORHOOD UNIT PLAN

➤ NEIGHBORHOOD-UNIT PRINCIPLES

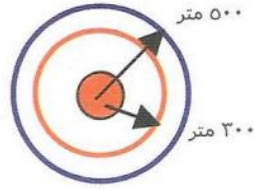
- **Size:** A residential unit development should provide housing for that population for which one elementary school.
- **Boundaries:** The unit should be bounded on all sides by arterial streets.
- Open spaces.
- Internal street system.
- Local shops.



NEIGHBORHOOD UNIT PLAN

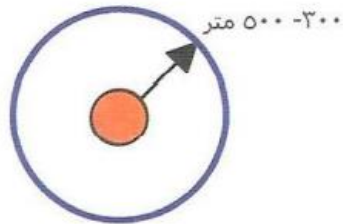


المدرسة الإعدادية (الحي أو المجاورات الكبيرة)
• 600 متر أقصى مسافة سير
• 350 - 400 متر في المتوسط
• الزمن من 5 إلى 8 دقائق

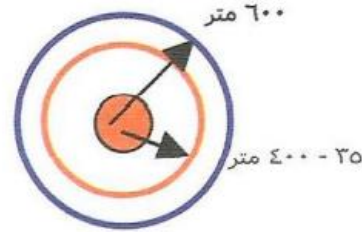


المدرسة الابتدائية (المجاورة)
• 500 متر أقصى مسافة سير
• 300 متر في المتوسط
• الزمن من 4 إلى 7 دقائق

الحضانة
• 150 متر أقصى مسافة سير



المركز التجاري
• من 300 إلى 500 متر
• الزمن من 4-7 دقائق



المدرسة الثانوية (خارج نطاق المجاورة - مركز الحي)
• 600 متر أقصى مسافة سير
• 350 - 400 متر في المتوسط
• الزمن من 5 إلى 8 دقائق

➤ مساحة المجاورة السكنية:

1. مسافة السير القصوى بين المكونات المختلفة للمجاورة السكنية. (الا تزيد مسافة السير على الاقدام بين 10 إلى 15 دقيقة)
2. المسطحات اللازمة للمسكن وتكون تبعا لنوعية الإسكان وعدد الوحدات السكنية المطلوبة.
3. الخدمات وشبكة الطرق.
4. نطاق تأثير المدرسة الابتدائية.

NEIGHBORHOOD UNIT PLAN

تأثير موقع المجاورة لسكنية على استعمالات الاراضي بها:

يؤثر بشكل مباشر على استعمالات الاراضي، وضع الخدمات المختلفة، شبكة الطرق، الكثافة السكنية، ودرجة التكديس:

1. تكون اشبه بمدينة صغيرة قائمة بذاتها.
2. في هذه الحالة يجب ربطها بالمناطق المحيطة بشبكة طرق قوية.
3. يجب ان تحتوي على خدمات يومية واسبوعية.
4. انخفاض الكثافة السكانية بها.

الموقع منعزل:



1. تعتمد بشكل اساسي على هذا المركز.

2. قلة مساحة الخدمات.

3. ارتفاع سعر الارض بها بسبب قربها من مركز الخدمات مما يزيد من

كثافة الاستخدام السكني.

بالقرب من مركز المدينة أو

الحي:



NEIGHBORHOOD UNIT PLAN

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1. انخفاض الكثافة السكانية بها.

2. يفضل خلق مراكز ثانوية بين المجاورات البعيدة لتقليل عدد الرحلات وبالتالي تخفيف الحمل المروري.

وجودها في أطراف
المدينة:

1. نخص العمال والموظفين ذوي الدخل المحدود.

2. تكون الكثافة السكنية والبنائية مرتفعة للوصول الى سعر منخفض للوحدات السكنية.

3. يجب توفير الخدمات الصحية والتعليمية

4. يتسم هذا النوع بالاسكان الاقتصادي وارتفاع المبنى حتى 5 ادوار.

بالقرب من منطقة صناعية:

Little Learning
MOMENTS

ASSIGNMENT 3

Each group should discuss and analyze only two project in Egypt of the following neighborhood concept:

➤ THE ORIGINAL NEIGHBORHOOD CONCEPTS BY **RADBURN**


The following points must also be discussed in your research:

1. Introduction
 2. Project concept
 3. Different parts of the project
- ❖ Assignment #3 submission is next week in a Hard-copy (A4) format as well as Soft copy.



ANY QUESTIONS?????

THANK YOU....



The references to multiple sources are text & figures
(sketches, drawings, pictures, photos,..etc.)

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