

### **Lecture note#1: Urban Fabric**

Urban fabric of cities, towns and villages is composed of the following three design/planning elements, which denote part of the physical identity of the place, i.e., building mass, path system, and urban spaces.

1- **Building Mass**, which is of three types, as shown in Fig-1a.

- Pointed,
- Linear, and
- Compact.

2- **Path system**, which is of five types (including roads and walkways) as shown in Fig-1b.

- Regular of similar intervals (grid of squares).
- Regular of diverse intervals (grid of rectangles).
- Semi-regular (includes curves and bent lines).
- Circular, where paths ramifies from a central location.
- Organic, which is irregular and includes dead-end paths.

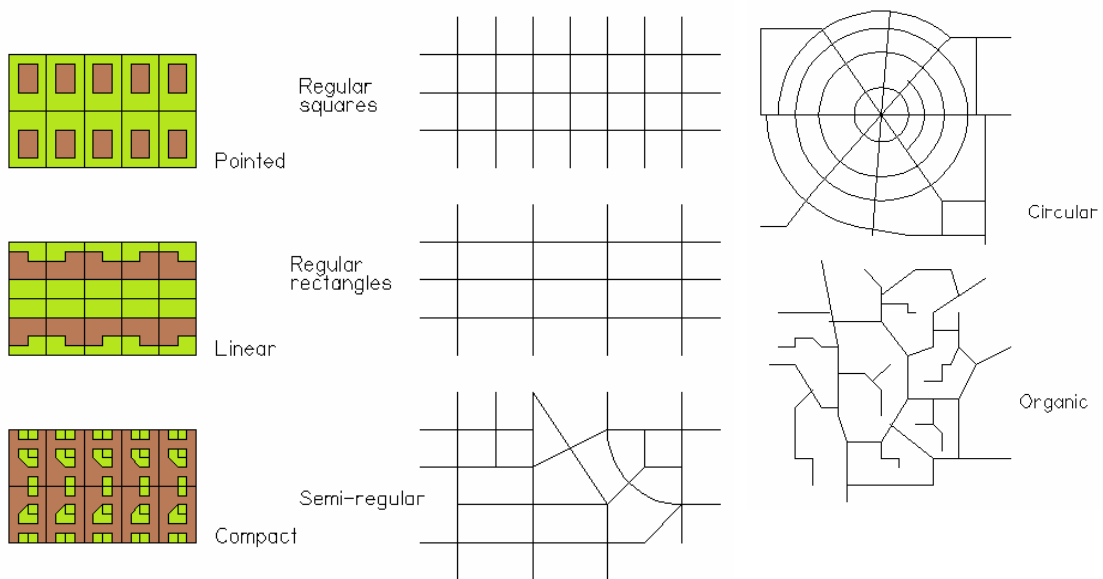


Fig-1a: Three types of building mass.

Fig-1b: Five types of path systems

3- **Urban spaces**, of diverse shapes, sizes, hierarchy, and functions, as shown in fig-2, and Fig-3.

- Shape: regular and irregular geometric shapes, or a combination of both.
- Size: monumental and/or humane in size, or just a transitional urban node.
- Hierarchy: Public, semi-public, semi-private, or private spaces.
- Function: commercial, residential, touristy-historic, religious, ceremonial, recreational, etc.

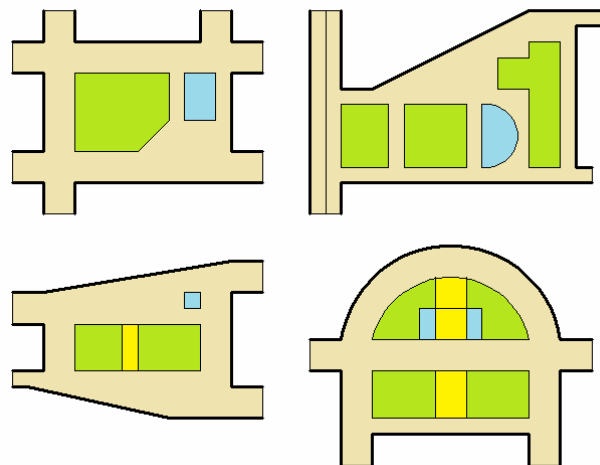


Fig-2: Samples of urban spaces.

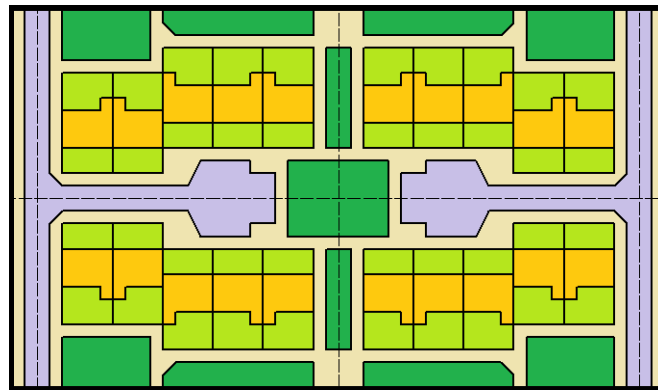


Fig-3: An urban space in a residential block, surrounded by linear building mass and regular path system.

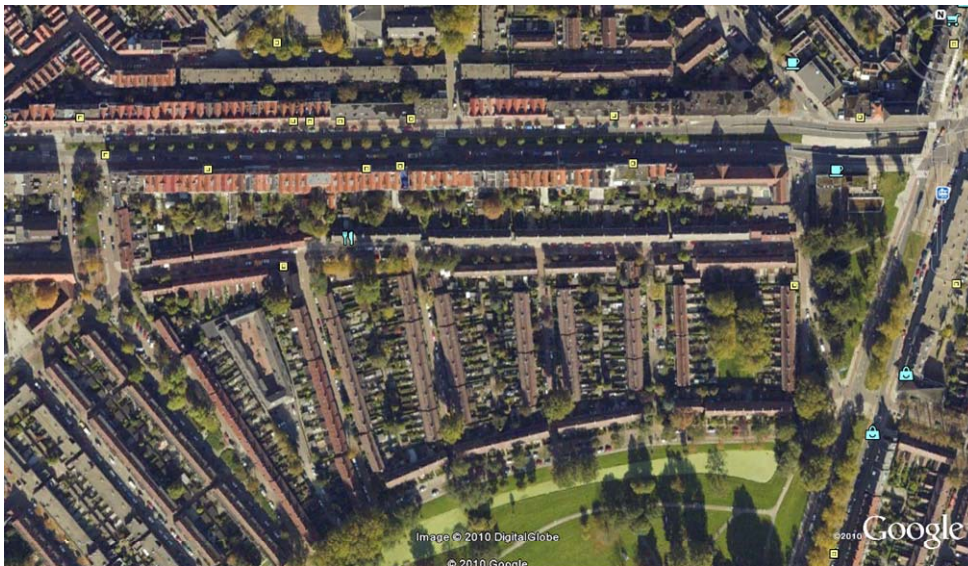
#### 4- Samples of real urban fabrics:



a- A photo in planned residential area in Rotterdam city, the Netherlands.  
(source: Google Earth)



b- Semi-Regular path system in part of Rotterdam City.  
(source: Google Earth)



c- Residential blocks of linear building mass in Rotterdam City.  
(source: Google Earth)



d- A photo in planned residential area in Makkah City (by. H. Aboulfotouh).



e- Urban fabric of Makkah informal areas,  
of organic path system and compact building mass.  
(source: Google Earth).



f- Urban fabric of a planned residential area in Makkah,  
of semi-regular path system and pointed building mass.  
(source: Google Earth).