



Ministry of Higher Education and Scientific Research  
Salahaddin University –Erbil  
College of Engineering  
Department of Architecture



## ERBIL HOUSING TYPOLOGY survey for (RECS-JICA)

A Ph.D Dissertation by

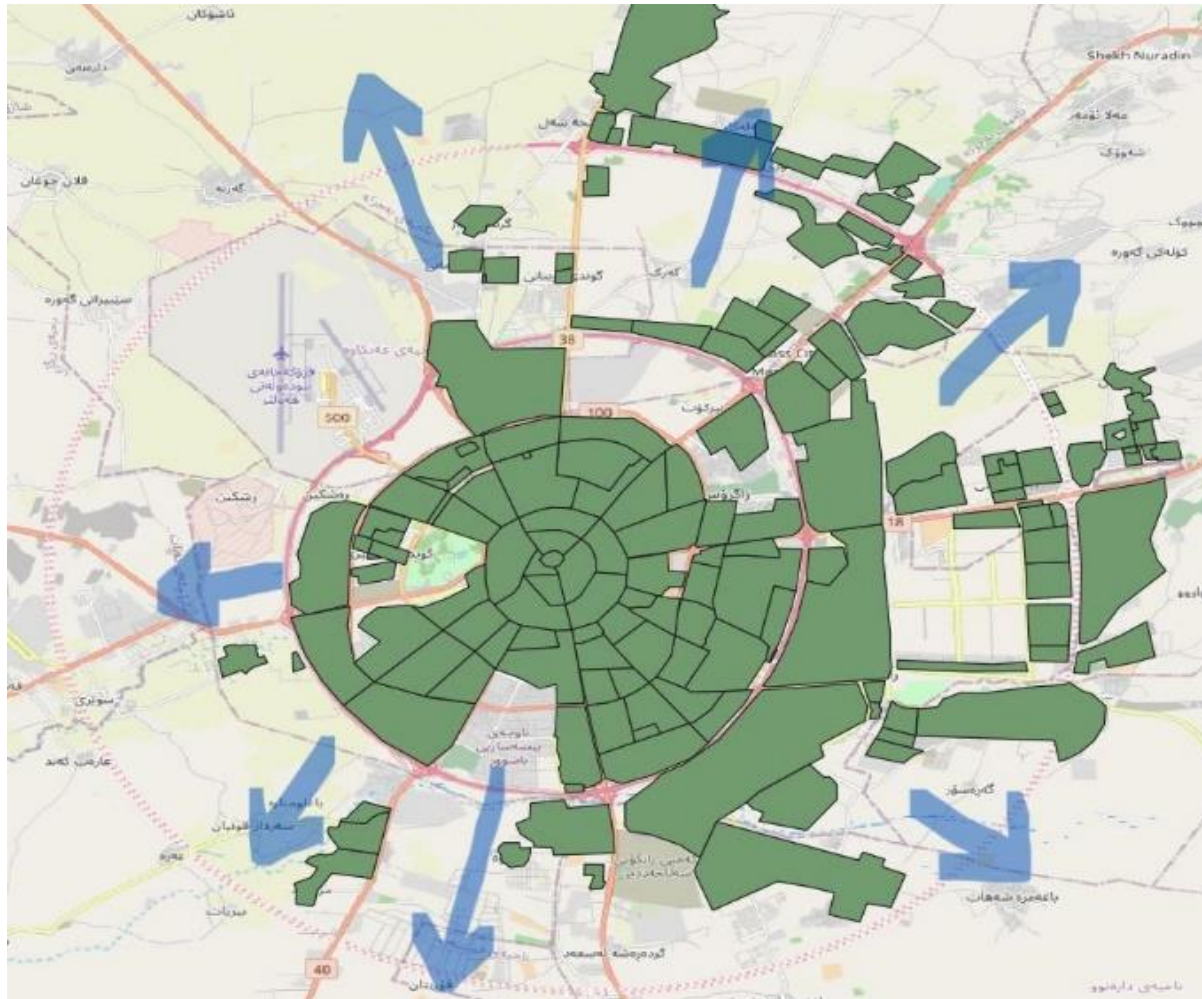
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BSc Architecture

Msc Housing, Building and Planning

21<sup>th</sup> April 2024

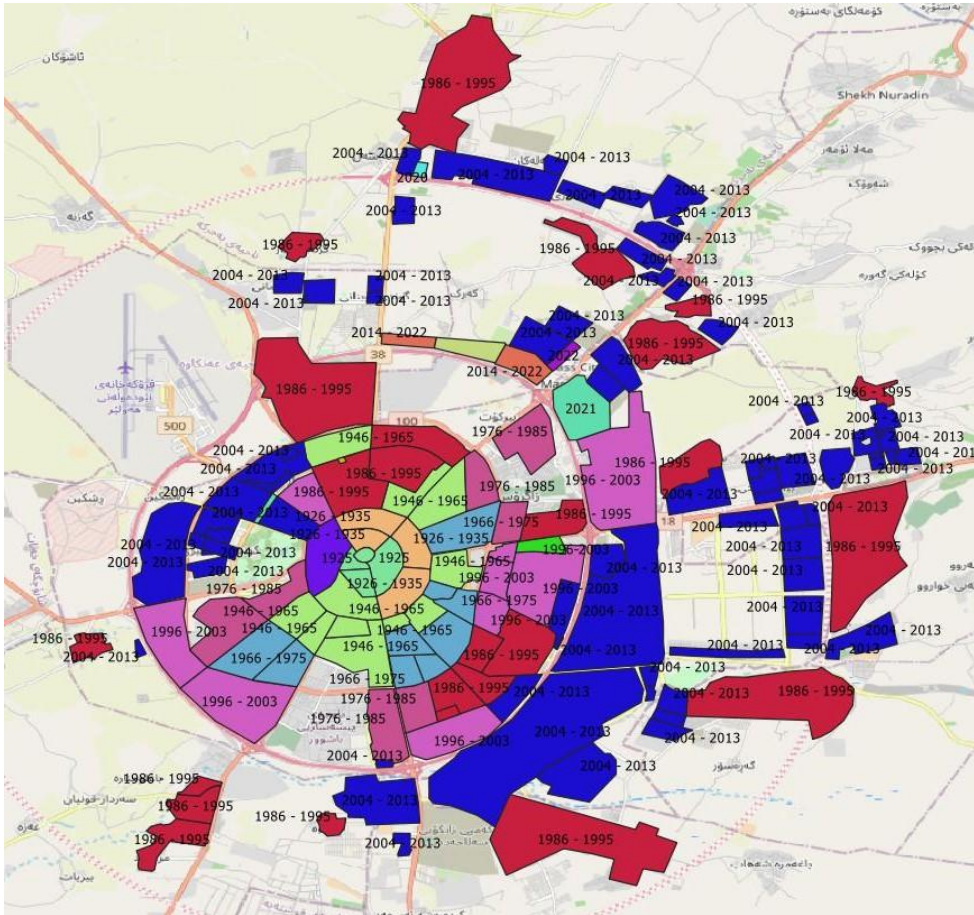
# Districts



Firstly, the area with the same types of housing digitized in to one polygon

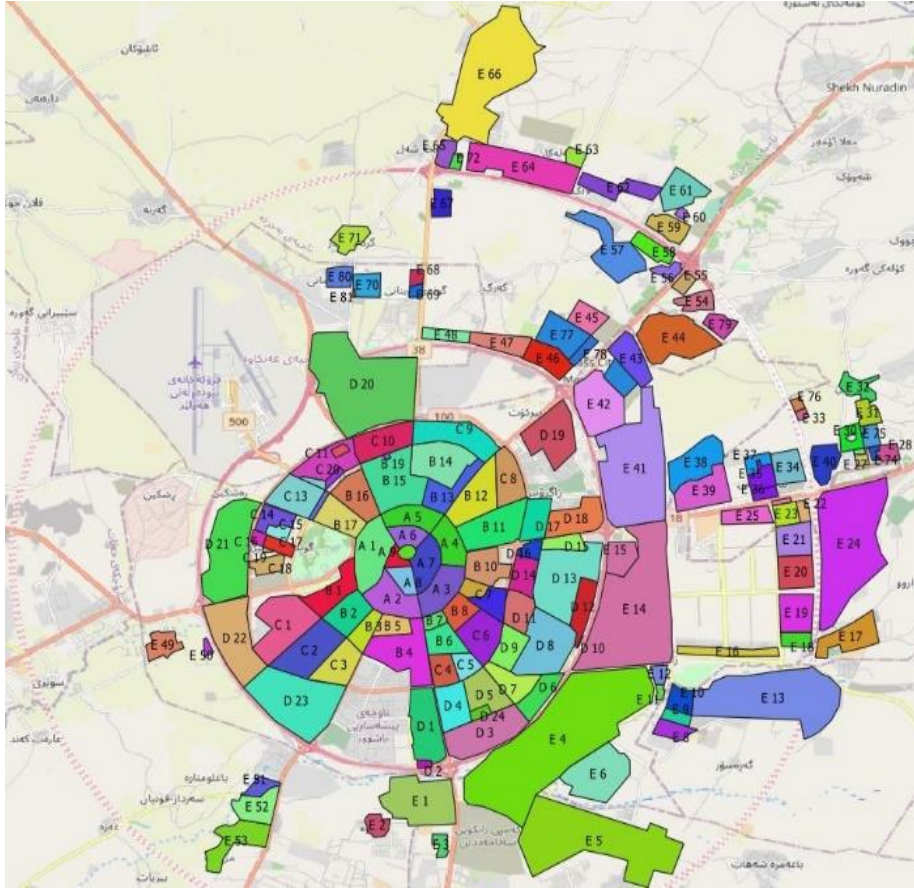
and has an ID mostly one polygon represents one city's neighborhoods or districts

# Housing typology in Erbil city based on urban morphology



secondly, the housing typology of the city is described by different urban morphologies, and at each period of urban morphology the housing types is classified and described

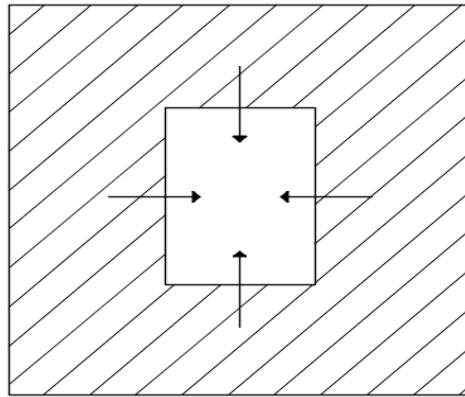
# Survey



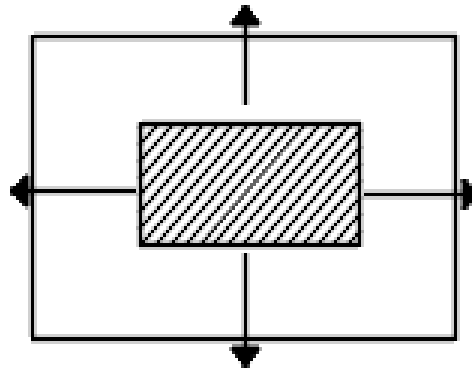
Then for each polygon data had been collected based on those criteria:

- ▶ Housing typology
- ▶ Number of floors
- ▶ Sub typologies for some specific areas like gated community
- ▶ Housing price range
- ▶ State of deterioration
- ▶ Availability and parking space within the house

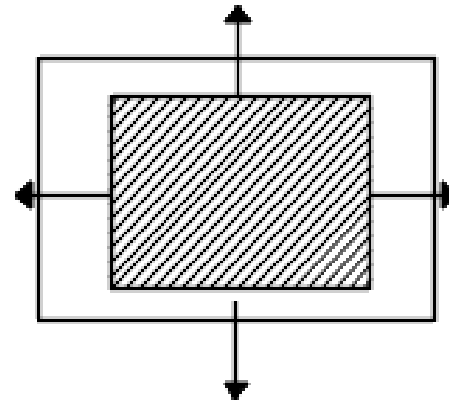
# Housing typology



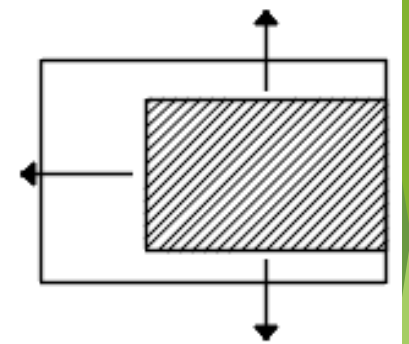
Courtyard House



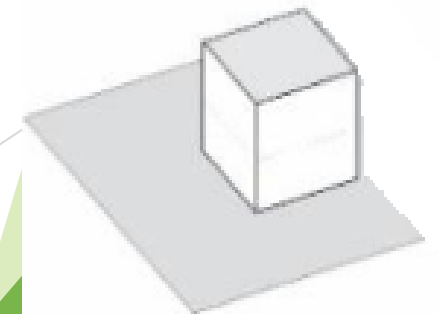
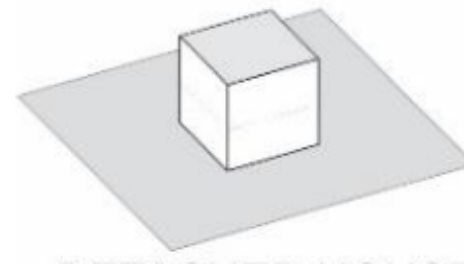
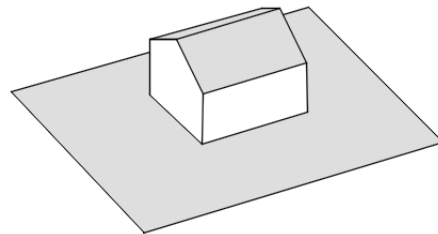
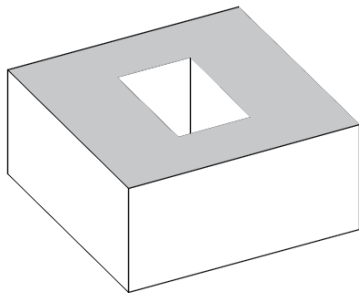
Bungalow Houses



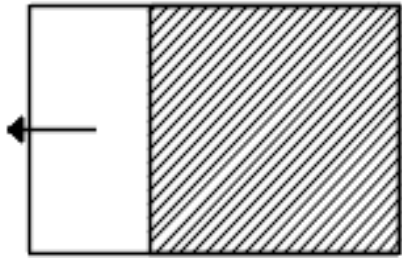
Detached house / single-unit housing



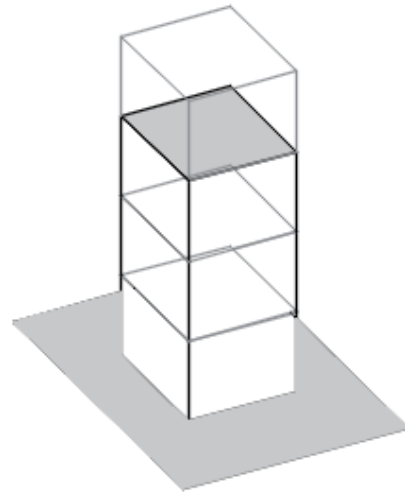
Semi-detached House



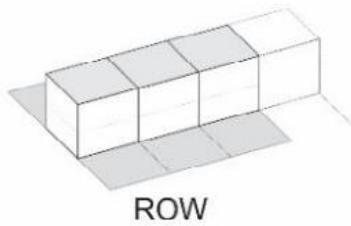
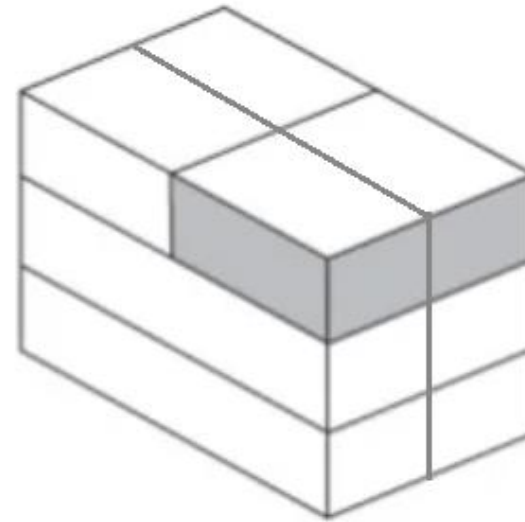
# Housing typology



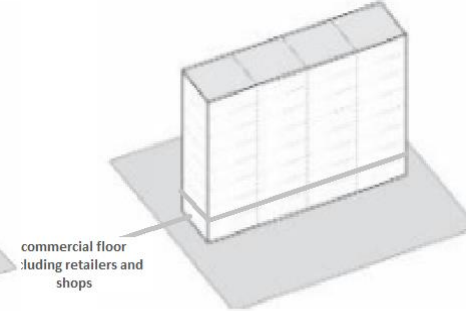
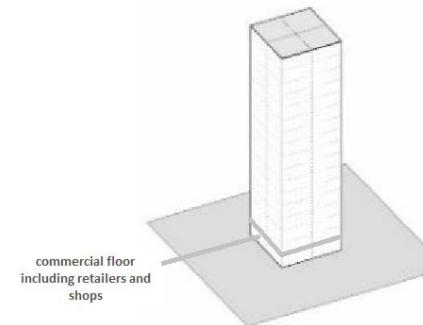
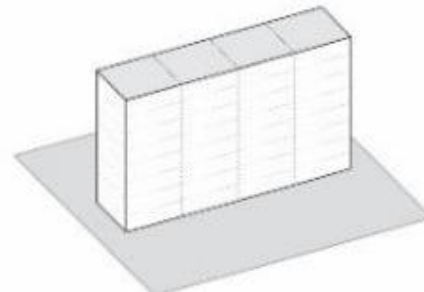
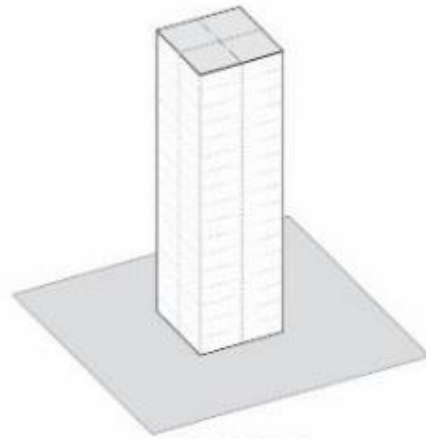
Terraced (Row) houses



Multi-family houses



ROW



Mixed use Apartments

# Guidelines

- ▶ In the city of Erbil, sometimes **the type of housing determines the quality of the building and the average price, but it does not determine the quality of the environment**, there are some other conditions that have to be taken into consideration when designing the type of housing for the future sustainable house type such as size, organization, quality and arrangement of spaces.
- ▶ **The quality of life is related to housing type** and is affected by spatial arrangements such as housing type, housing plan, layout of house and garden.
- ▶ **Creative use of housing typologies opens new possibilities to increase density to fill housing in urban areas**, to meet social, economic and environmental needs for the community.
- ▶ **Planning** of Erbil city from the ancient period to the current days has an impact on house design because planning of any city dealt with the provision of specific city residential zone including house land and infrastructure, such as road or a bulk water supply system. Thus the house land area is limited according to the city planning. Erbil city's ancient and new planning are quite different because of the new city planning notion of new technology material, different economic, modern planning design and so on.
- ▶ When making decisions about the **choice of different housing typologies**, consideration must be given to the availability and cost of land, the **socio-economic** problem, the urban context, and natural systems.
- ▶ **Family class separation** is by-product of apartheid spatial planning and design. It is therefore imperative that housing design types and planning is critical to socio-spatial equality in Erbil city.
- ▶ For different income groups and household configurations the use of combination housing typology in the same area is crucial, promoting choice and diversity for residential environments specially to sustain local economic development. This can be done through the use of mixed-use housing that incorporates social facilities and economic activities that can support residents' livelihood activities and create lively residential environments
- ▶ for the most of housing types especially courtyards, terraced houses and flats off-street parking is required