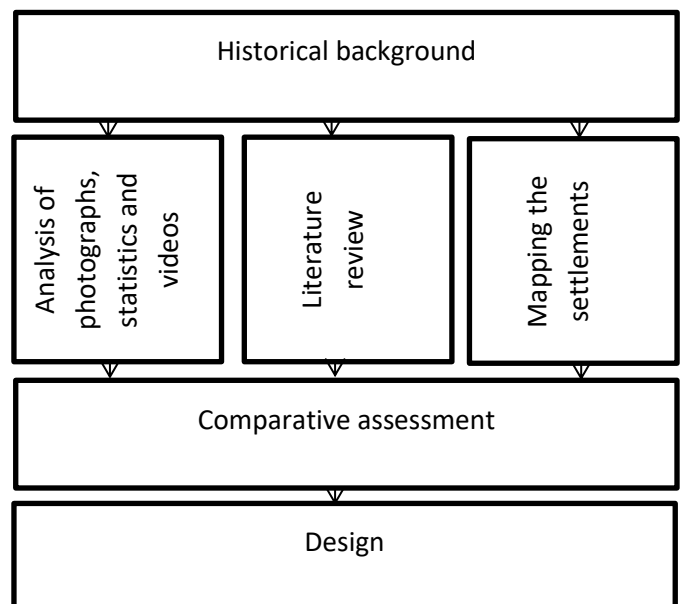


## Research Methodology

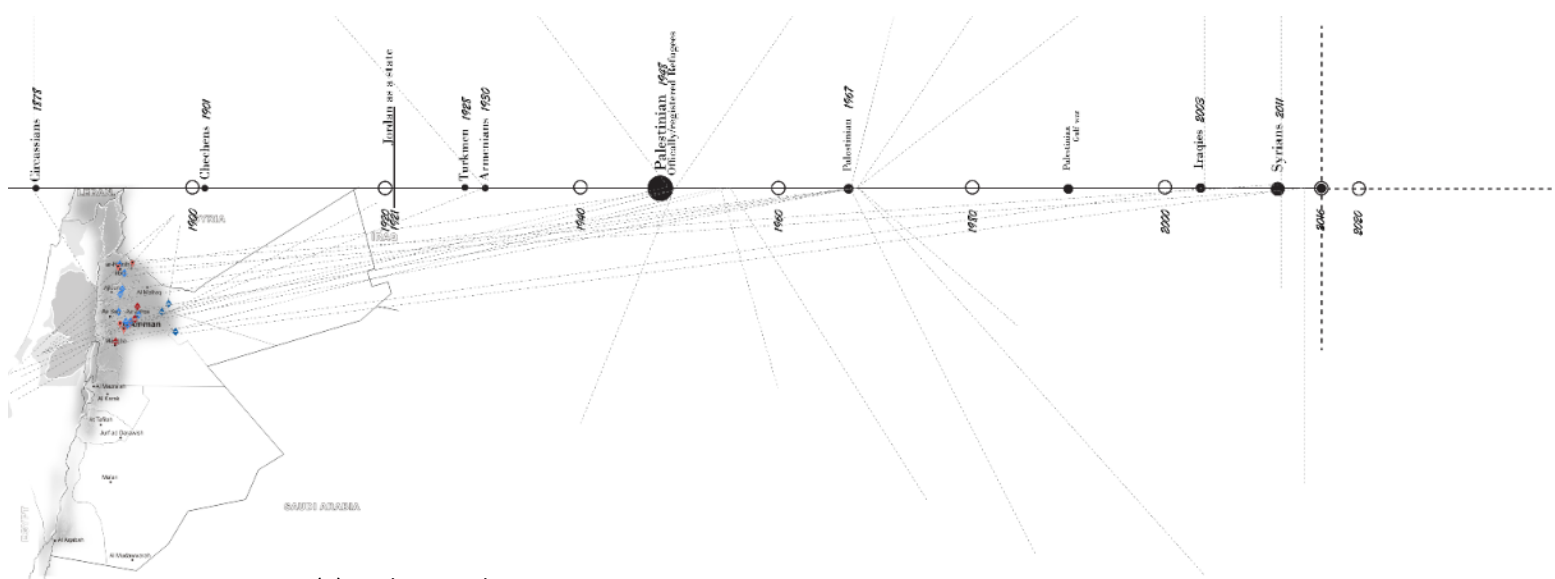
The research methodology is exploring the multilayers of the conditions in Jordan refugees' settlements; it tries to understand the refugees systems within the built environment. The objective of the methods is to understand the underlying of the cities practice, analysis the settlements' operations, analysis the disciplines that affected transformation or creation of the cities, reach the hidden resilient components and inclusive urbanism that the host country the international organization can obtain a general plan for the refugees settlements. The phases of the method process are:

- Historical, quantitative and cultural background research.
- Mapping of the settlements.
- Literature review.
- Analysis photographic, statistics, and recorded videos.
- Design alternatives.

It is indirect suggestion of relationship between Research and Design the potential alternatives of urbanism within the complexity of the urban condition of refugees settlements. The methodology seeks to make connection of the components in the analytical process. The sequences of the process led to objectives which are make an arguments of the issue and the importance by a collective set of the settlements within Jordan. The comparative process of the cases which is making set of criteria such as context, social network, time, and population. The assessment process is that gives the ranking for the selection of the most cases by it is spatial, formal, social, historical, and statistics background that have variation and similarly beside its potentials and gaps of the human system and the built-environment system. The previous process gives the results of the correlational assessment by make deep analysis by for each selected case by scales which is started with Regional, City, District, Building, and materials. In the design products can be embedded within the last process by making interventions in each scale for the different cases.



Fig(1) Research Methodology Diagram



Fig(2) Jordan Timeline

**Historical, quantitative and cultural background research.** The timeline indicates the origins of the refugees and the time of its establishments. In the map of Jordan the location and its identification as camps or urban settlements.

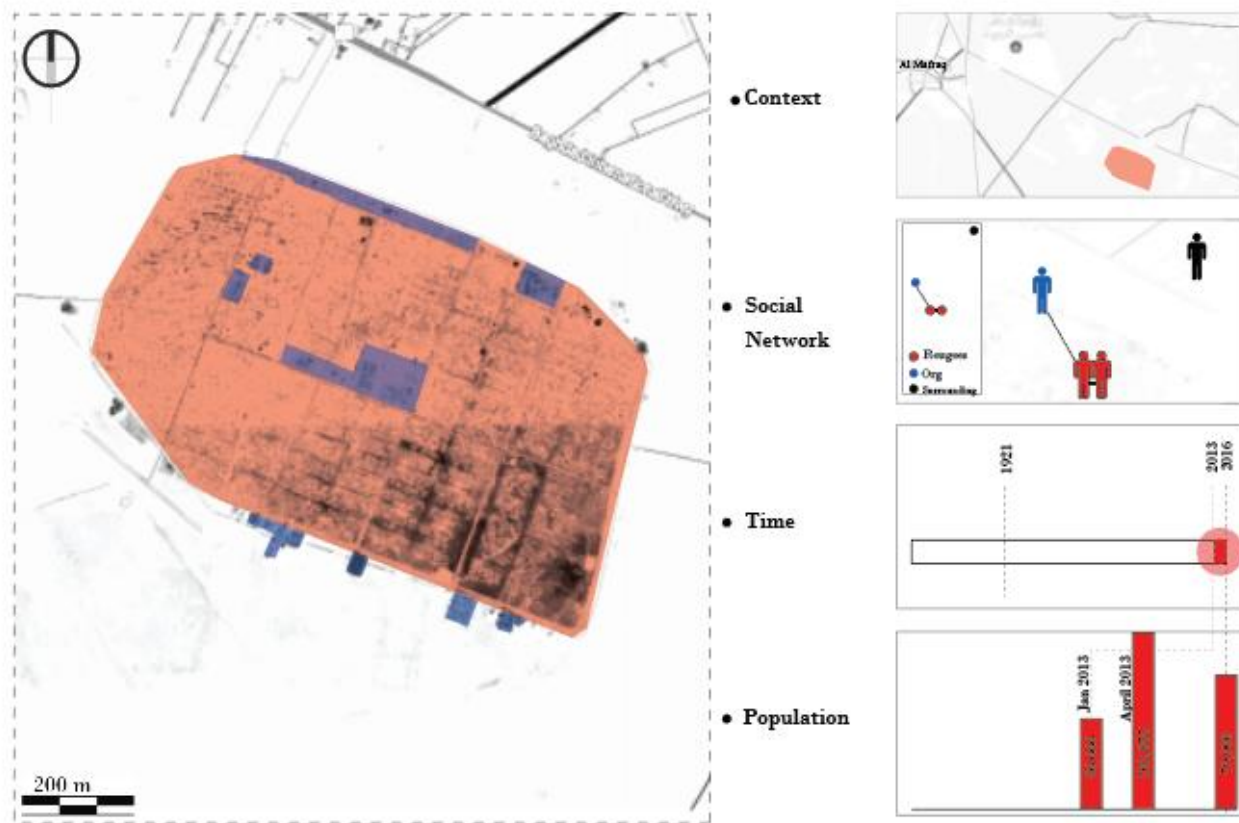
Settlements	Location	Time	Population
Wadi-Sir	Amman	1878	60,000
Ashrafeeh	Amman	1930	6,000
Azarqa Camp	Azarqa	1949	20,000
Irbid Camp	Irbid	1950	28,000
Amman new Camp	Amman	1951	57,000
Jabal Hussein Camp	Amman	1955	32,000
Baqaa Camp	Balqa	1968	119,000
Souf Camp	Jarash	1968	19,000
Jarash Camp	Jarash	1968	25,000
Amir Hassan Camp	Azarqa	1968	10,000
Madaba Camp	Madaba	1955	5,500
Asukhneh Camp	Azarqa	1968	6,000
Alhusun Camp	Irbid	1968	25,000
Talbeih Camp	Amman	1967	8,000
Marka Camp	Amman	1968	53,000
Dir ghbar	Amman	2003	48,000
Zaatari Camp	Mafrq	2013	79,900
Azraq Camp	Azarqa	2014	54,000
Emarites Camp	Azarqa	2014	7,730
Irbid Settlement	Irbid	2011	5,700
Ramtha	Irbid	2011	7,700

Fig(3) Table of 22 Cases of refugees settlement in Jordan

**Mapping of the settlements** The mapping of the following settlements and within the timeline of the Jordan history and this comes in scale in order to have the sense of the area and to have the assessments for the settlements in the criteria of location, social network, time and population.

This is an example of one of the camps. Heading title of the name and the analysis is divided to five parts the maps is giving the area of the territory of camp and it highlights the institutional location. The four categories of the analysis are context, Social network, time and population within the timeline of the camp.

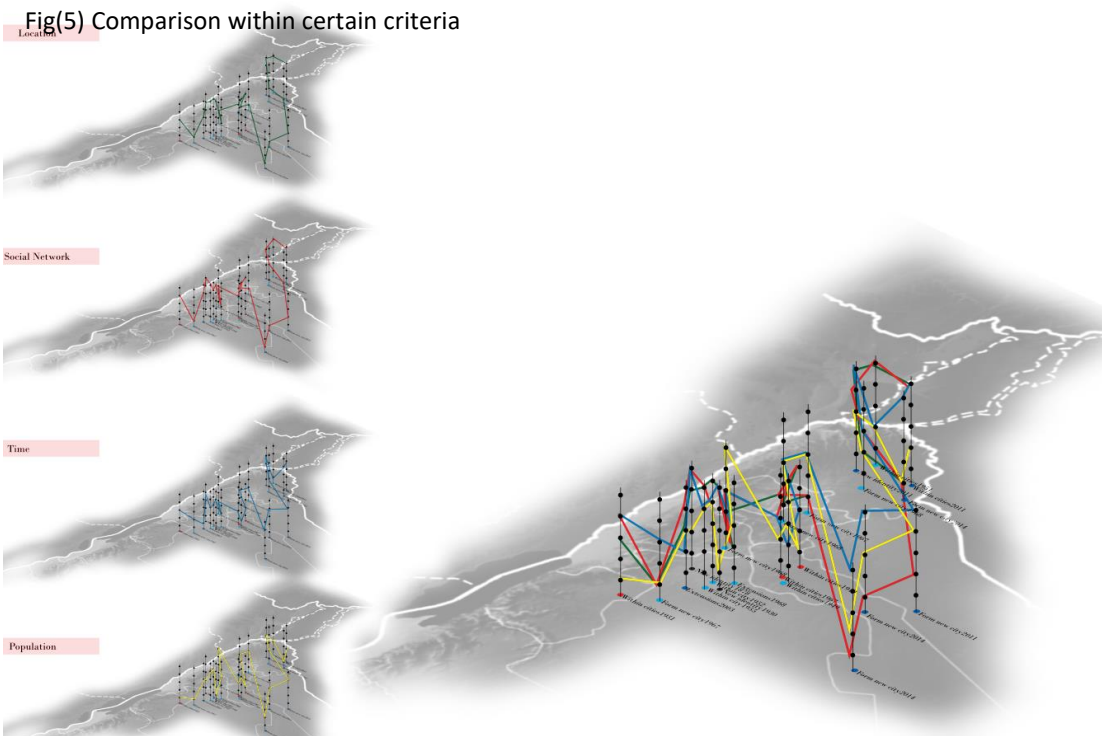
## Al Zaatari Camp



Fig(4) Example of the camps analysis

The table is the camps assessments for the selection of five cases to go through analytical process for the conditions.

	Location	Social network	Time	Population	Density
Wadi-Sir	*****	*****	*****	***	*
Ashrafeeh	*****	*****	*****	**	**
Azarqa Camp	*****	****	****	***	***
Irbid Camp	*****	****	****	***	***
Amman new Camp	*****	****	****	****	****
Jabal Hussein Camp	*****	****	****	***	***
Baqaa Camp	***	**	***	*****	*****
Souf Camp	*	*	***	**	**
Jarash Camp	*	**	***	**	**
Amir Hassan Camp	*	**	***	*	**
Madaba Camp	****	***	****	*	**
Asukhneh Camp	*****	***	***	*	*
Alhusun Camp	**	*	***	**	***
Talbeih Camp	*	*	***	*	*
Marka Camp	**	*	***	***	***
Dir ghbar	*****	*****	**	**	*
Zaatari Camp	**	*	*	****	***
Azraq Camp	*	*	*	**	**
Emarites Camp	*	*	*	*	*
Irbid Settlement	*****	*****	*	*	**
Ramtha	*****	****	*	*	*

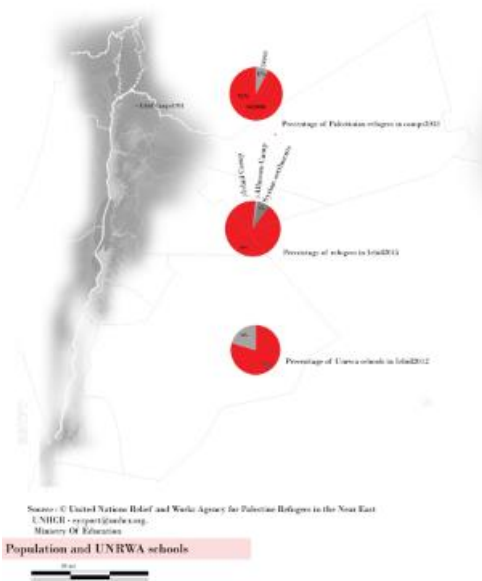


Fig(5) Ranking

**Analysis photographic, statistics, and recorded videos.**

The scale will start from the regional point of view of the areas of camps and settlements in Jordanian cities, the cities are the major cities in Jordan where it is located in the north and the middle of Jordan. I created new classifications refers to the social aspect of refugees' locations and the formation of the wave's existence:

- The extension of cities: is creating new neighborhoods that needs new infrastructure with the cities services.
- Revive neighborhoods: is changing the city identity by condense existence of the new arrivals.
- Form new cities: The genuine cities are produced by the existence of the social fabric to habitat certain location and have new social infrastructure.
- Integration within cities: unexpected increscent of social fabric within the urban fabric formed in certain way to meet the new social needs of these waves.
- 



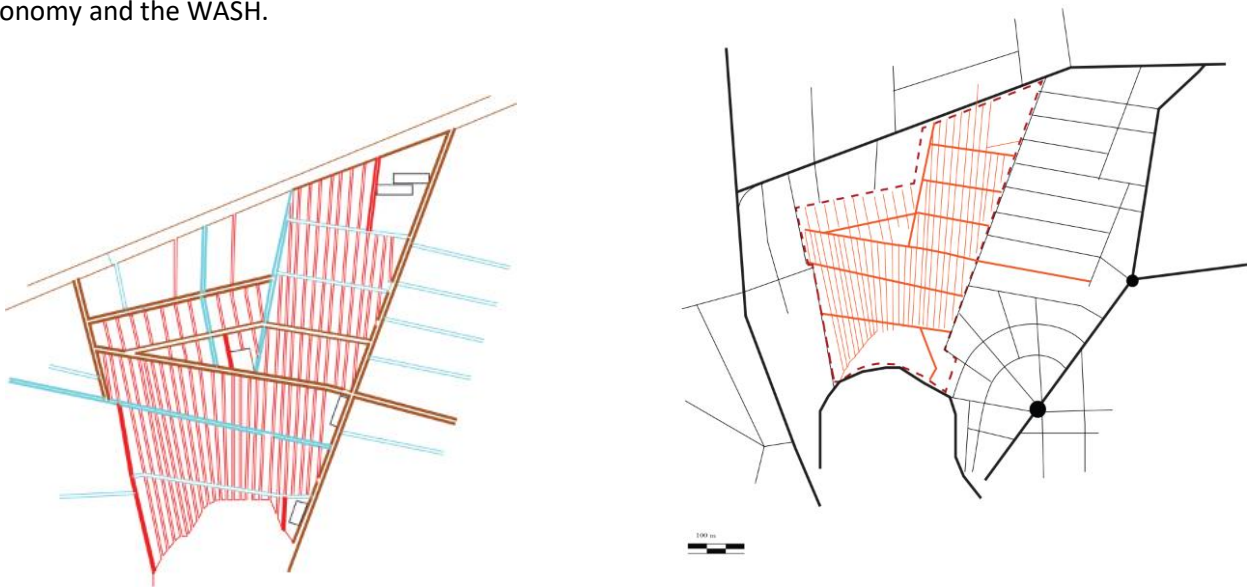
Fig(6) Regional scale analysis

The three biggest cities in Jordan capital Amman, Azarqa and Irbid beside Jarash and Baqaa . The second scale is the city itself where it is searching in sectors the educational system and the statistics of the city and the refugees of it and the location of the educational and health and transportation existences.



Fig(7) City scale

The third scale is the neighborhood scale where it is generating several maps for the neighborhood by analysis the main routes, Street types, social routes, analysis the edges the precedents of education and health and the number of the refugees with their statistics of gender and age. The looking for amount of money that entering to the refugees' settlement. Statistics of the people housing refers to the number. The topography of this scale. The employments and the area of working. The economy and the WASH.



Fig(8) District scale

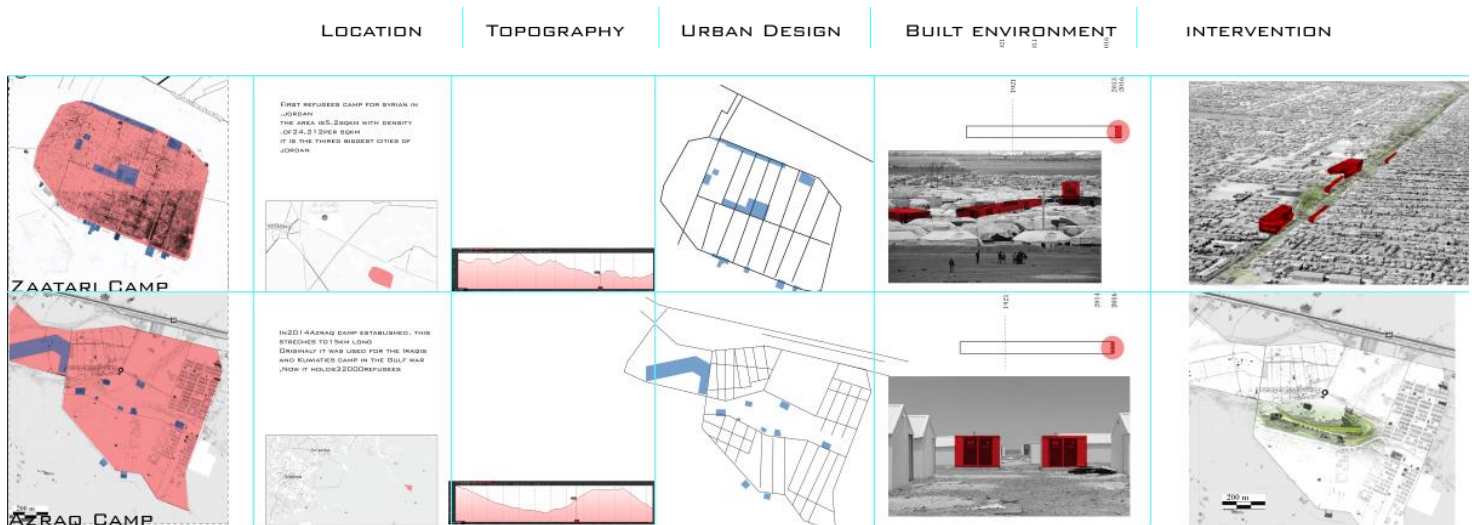




Fig(9) Analysis

The scale is become more architecture and physical features. the building scale, this is dealing with the prototype of the block where it is varied from the place to place with it is physical features. The types of the buildings refer to its functions.

The last scale is the details scale where is the type of materials, elements, façade, streetscape, visual interaction and social acts within the building “Sections”



Fig(10) Design