

Transformation of Erbil Old Town Fabric

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Abstract— The historical cities in a time change with different factors. Like population growth, economical condition, social unconscious as can be listed many reasons. Erbil the capital located in the north of Iraq, a historic city. The most important factor in the planning and urban development of the city, and it was the focus point in the radial development of the city and iconic element is old town Erbil was entered on the World Heritage Sites (UNESCO) in 2014. In order to preserve and rehabilitation of the old historical city and conservation this heritage places and transfer for future generation and to prevent the loss of the identity of the city. This research focusing on the heritage places in the city and historical buildings, identifying the city, also the cultural and architectural characteristic.

Cities are a consequence of the interaction of cultural, social, economic and physical forces. Countries have to adapt to these social, economic, physical and cultural changes, urban problems in order to meet the new needs and urban policies. Urban transformations, economic activity, social urban spaces that have lost their functions and physical qualities.

This thesis study reveals the spatial and socio-economic effects of urban transformation. Historical Erbil city, which is the urban conservation project, was selected as the study area and the current situation, spatial and socio-economic effects of the urban transformation project being implemented in this region were evaluated.

Index Terms— Historical cities, Erbil city, Urban transformation, Spatial and Socio- economic impacts

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1 INTRODUCTION

It is inevitable that the city as a continuously changing organism is in transformation and change. The needs arising from the new actions caused by the social and economic changes in everyday life necessitate the new functions of the city and accordingly the transformation of old town. Cultural heritage sites are by their basic physical and by preserving as a proof of the human condition, are important areas that need to be conveyed to future generations. Cultural heritage sites restrictions introduced for protection, these areas are different from other urban places and specific conditions and need to be defined in the context of the planning process. Cities are not just structures created for the modern world. Cities always sat on the previous foundation. Instead of destroying a previous one, and a reconstruction was carried out on it. So, cities have a history. When historic sites and buildings are destroyed and create irreversible results. Cultural heritage site not only the preservation also providing for the enactment of all stakeholders in the process participant be able to respond to social needs management is required.

Historic urban areas and buildings are important in terms of establishing the identity of cities. For this reason preservation and sustainability historic areas and buildings contribute to the preservation and development of that city's identity. Thus, it is of great importance to conserve the cultural and social heritage of Erbil, which has grown from a small settlement at the founding into Iraq's fourth most populated since it was designated. Settlements and remnants from the past civilizations constitute historical texture in cities. Today, traditional values are rapidly being destroyed, zoning changes, population growth, industrialization and other factors cause the destruction of the city's historical environment and losing identity. These deteriorations observed in the cities are beginning an irreversible process in the historical environment. As a result,

the historical and cultural values of cities are disappearing. In order to contribute to the protection of Erbil urban identity is of great importance. The work carried out for the protection of the cultural heritage in Erbil old town and the results obtained are to protect Erbil's urban identity. Because as a city's historical sites cultural heritage is the most precious part of community prosperity. For this reason, "by adopting the principle of preservation of inheritance, a city can not only provide a healthy life opportunity; At the same time, helping to recognize the cultural identity of that city [1].

In the re-emergence of urban identities, old to conservation studies of urban fabric are applied for many years in the world. Changes in the world have been influential in the preservation of historic areas. With the establishment such as adopted in 1964 the Venice regulations, the United Nations Educational, Scientific and Cultural Organization (UNESCO) (1972), the International Council on Monuments and Sites (ICOMOS) and International Council of Museums (ICOM), Citadel of Erbil in this process has been included.

For the conservation and sustainability of cultural heritage sites, it is understood that world heritage concepts were accepted in international conservation legislation in the 1970s. In the 1990s, the concept of management has been explained clearly and information about its content has begun to be given and heritage was planned process within the scope of protection have been emphasized on international platforms. In Erbil, when the conservation date is examined politics, economics, urbanization history can be said that a delayed development of conservation is observed.

The historical city of Erbil, now the urban transformation, the work of the castle and its surroundings is proceeding under the leadership of UNESCO with the "Historic Erbil Castle and its Sur-

rounding Conservation and Urban Renewal Project". The Erbil Citadel and surrounded area constitutes the essential elements of the unplanned construction of the modern buildings and the transformation of the structures of the historical value left without maintenance. If these projects are developed in accordance with the principles of urban transformation, it should be expected to contribute to social development and economic development as well as to increase the quality of space and life in the city.

2 SCOPE OF THE STUDY

Main aim of the study is to establish historical evolution of Erbil old town. The historical citadel of the city of Erbil, which hosts the city's first settlement area, was chosen as a research theme. Spatial and socio-economic effects of urban transformation planning and development have been determined. The study of citadel and surrounded area is both theoretically and in terms of field practice have been discussed. In the study area and the historical citadel of Erbil, the spatial transformation that will be realized through the analysis of the present situation of the region and the urban transformation project implemented in the region, socio-cultural and economic consequences.

3 CONCEPTS OF URBAN TRANSFORMATION

Many definitions have been made in the literature with the concept of urban. But it does not have a fixed definition. Because cities have been shown different characteristics according to the measured values. These can be listed as country, region to region, population, administrative measures, functions and cultural values.

Both modal and function in the city the concentration of the population, as well as the accumulation of city and the processes of industrialization and consumption can be specified as the space of increased expertise and hierarchy [2].

The process of urbanization takes place in many countries in different ways and urbanization process has been taken up in different forms in regions. Tekeli described the urbanization in two ways: Firstly, urbanization is defined as the concentration of a population and the size of a population and the heterogeneity of the population in non-agricultural activities; secondly, the adoption of values, behaviors and attitudes that can be called "urban culture" is seen as urbanization. [3].

Urban areas need change due to physical, social, environmental, economic factors. These changes and transformations sometimes increase the quality of life and space, sometimes they cause economic, social, environmental and physical deterioration of the place. The concept of urban transformation emerged to prevent these distortions in cities. Moving from these definitions, urban transformation can be defined as the introduction of a style other than the arrival of urban areas, or another situation. By changing the existing features, urban transformation would be thought of as another style form. However, urban planners describe urban transformation as a change in the internal structure of existing parts of the city and in relation to other settlement units [4].

According to Turok, urban transformation have three important characteristics [5];

"Aims to change the nature of a place and include people in the process. It includes a wide range of objectives and activities that

intersect the basic functional responsibilities of the state, depending on the specific problems of the region and potential. The private institutional structure of the partnership includes a partnership structure that varies among different stakeholders."

Clerici and Mironowicz (2009) have described urban transformation as a "modern" feature of a city. They argue that cities change; thus, their urban forms adapt to these changes in order to reflect the cities' social structures [6].

Urban transformation applications urban growth, urban function balances constantly changing positive socio-economic structure of the city takes care of creating new environments that will affect. These areas can be created, social, economic and physical purposes [7].

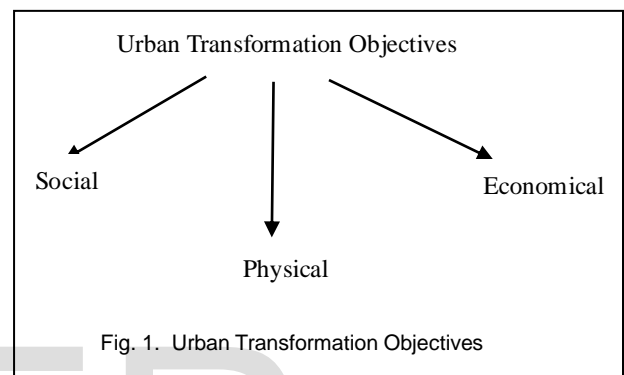


Fig. 1. Urban Transformation Objectives

Social objectives of urban transformation; In order to achieve the standards that make living spaces healthier and safer, to prevent urban areas from becoming depressed and to ensure participation of different segments in planning.

A person who socializes by living in an environment that carries past signs will easily become conscious of cultural continuity and will have a history of consciousness. The continuity envisioned here is to carry the symbols of the past in new life, not the same as the past [8].

Physical objectives of urban transformation; To remove the problems of corruption in the fields of life, addressing social infrastructure problems in the region, balancing density. Getting transportation problems, to prevent urban sprawl and to respond to the need for change in the city is to give.

Economic objectives of urban transformation; Revitalize business life by reducing economic imbalance in the city, to bring the ruined city parts back to the city, put forth economic models that increase the quality of life.

4 URBAN TRANSFORMATION METHOD

Different urban transformation applications have been made in the world. Institutions or organizations that carry out urban transformation projects address issue for different purposes and the application also have different characteristics and cultural values. Historical, cultural and social values must be considered when making the transformation. However, in this way a successful result is achieved.

Urban transformation is applied in different forms and therefore shows differences in concepts. These;

TABLE 1
URBAN TRANSFORMATION METHODS

URBAN TRANSFORMATION METHOD	Redevelopment	Redevelopment, seriously deteriorated and unsustainable structures is an accepted approach in areas where.
	Rehabilitation	Rehabilitation refers to the compilation and restoration of a place into healthy living conditions. Rehabilitation is a worn over time Increasing in density and unable to function is a way of making the regions Worthwhile.
	Gentrification	Gentrification defined as the placement of middle and upper income groups in residential areas by the lower income group which is renewed through physical intervention [9].
	Integration	In this way, while the urban identity is being protected, new buildings a rich environment is created with the participation, the main inhabitants of the region, conversion has contributed. It is the method of building new buildings without touching existing structure and preserving integrity [10].
	Urban Transformation	Urban transformation is defined as the re-planning and implementation of existing cities and centers to remedy and adapt to the needs of the day.
	Urban Conservation	Conservation, Social, economic conditions and culture integrates contemporary societies with contemporary societies and prevents them from changing their physical structure reflecting their values.

5 URBAN TRANSFORMATION IN HISTORICAL TOWN CENTERS

Historical urban textures are spaces arranged on a human scale reflecting the social, cultural and economic structure of past civilizations, life philosophy and aesthetic concerns. The realization processes of the urban transformation projects and their relation to the social-spatial structure conflict with different urban transformation models. Gentrification, revitalization and transformation methods are generally used in the depression areas of the city centers.

Urban centers are generally encountered as historical centers, which have become mostly depressed areas, and urban transformation method is applied today in order not to lose the architectural social and historical features. The foreground architectural cultural and historical features and these physical features provide integrity in social economic life, Areas where the sustainability of urban texture is formed is called the urban protected site. The urban protected site is harmonious order of old cities, architectural integrity able to protect streets, neighborhoods or areas.

The causes of destruction of historic city centers can be listed as follows:

1. Changes in social and economic life conditions
2. Unconscious intervention
3. Wrong restorations

The lack of awareness of the historical environment, the inadequacy of conservation education

1. Lack of protection plan and unconscious implementation
2. Reluctance and indifference of local governments, inadequacy of resources
3. Rapid technological developments break ties to the past

The preservation of historical city center has been seen to be harmonious with the environment as well as dynamic in social economic and cultural relations. The purpose of conservation and renovation of the historic site, these ones;

1. Sustainability of historical background
2. Improving historical centers and ensuring harmony with the environment
3. Revitalization of depressed historic centers
4. To prevent the loss of identity
5. Revival of the economy

The historical city is the center of existence. It is necessary to prevent the loss of the values in the historic city centers which are the first place of the city. To ensure sustainable development, is of utmost importance in urban protection and renewal. For this reason, it is necessary to make decisions that will provide continuity in approaches such as functionalization and continuous maintenance and repair.

6 CASE OF STUDY ERBIL OLD TOWN

Erbil is one of the cities of Iraq; it's located on the north part of country and the fourth largest city in the country after Baghdad, Basra, and Mosul. Erbil is the capital of the autonomous Region of Kurdistan within the Federal Republic of Iraq. About 350 Km from the capital Baghdad and the area about 13,165 km². International borders: Turkey, Iran. Population in Erbil 2 million. The citadel town of Erbil lies in the middle of the Greater City of Erbil. Although it is now completely engulfed by the huge expanse of the modern city it

still lies at the heart of the busy central commercial district. The overall form of the citadel town is elliptical. The citadel of Erbil is a tell or occupied mound, it rises some 30 meters above the ground level of the lower city. Its long diameter is about 430 meters and its short diameter is about 340 meters. Its overall area is 102,000 m² [11].

The Citadel Town of Erbil, or Qala't Erbil, is an impressive elevated settlement that has been inhabited continuously for millennia. Although its exact origins cannot be traced with certainty, there are strong archaeological indications and finds, however, to indicate that it goes back to some 6000 years. According to the data from International Council on Monuments and Sites (ICOMOS), 7000 years of inhabitation existed in this unique urban settlement, making it the longest inhabited place on earth. According to well-known records and archaeological reports, layers of Assyrian, Akkadian, Babylonian, Persian, Greek and pre-Arabic settlements have been found and identified in the citadel [12].

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The aim of the preservation and improvement of the citadel and its surroundings is to help revitalize and modernize Erbil while reflecting the culture and history of its people. With the conservation works done, the castle is to make the traditional residential centers cultural center of modern Arbil, where culture, rest and tourism will function in a way to cover. It is known that there are 1.307 archaeological sites in the region apart from Erbil Castle and it offers an excellent opportunity to attract tourists to the region [13]. The citadel is the inner circle and the rest represents the radial growth of the city. The urban form development of Erbil City was finally concentric radial layout [14].



Fig. 2. Bird eye view of Erbil Citadel [15].

Three historic district Arab, Tasjeel and Khanaqa, and commercial area of the southern area Qaysari bazaar to below the developing castle. The types of houses in these old areas were characterized by their courtyards, while the street patterns have narrow irregular shapes; these attributes of the traditional urban fabric are similar to

the citadel's pattern [16].

Although Erbil has faced different stages of change and growth at different times, has been protecting the texture. In 2007 UNESCO and the High Commission for Erbil Citadel Revitalization HCECR, have been work on preserve the old citadel and traditional district.

The Erbil Citadel District is a settlement area with certain values in every period of history. These values;

1. Having hosted many historical civilizations,
2. Protecting the integrity of the city with the perimeter walls of the citadel
3. Having a special place in terms of being a regional center,
4. Living legacy of urban heritage shows,

The fact that the cultures in the Mesopotamian regions are influential in urban development and therefore have a mixed urban morphology.

The distinctive structure of the urban community and space is evident, citadel always renews yourself because it has a significant population potential in every period of history.



Fig. 3. Erbil Citadel Satellite View [17].

6.1 General Assessments of the Erbil Old Town

Erbil Citadel and surrounded area is examined and the following conclusions are reached;

Destruction of traditional structures

1. Corruption and improper maintenance of attachments to original attributes
2. Due to the low-income people living in the region, the continuous change of the socio-economic cycle is effective in the destruction of the urban texture
3. The practices in the name of modernization has led to the destruction of urban fabric

Local governments cannot control the new construction in the region

1. The rapidly increasing population and changing socio-cultural environment due to the fact that the castle and its surroundings are at the center

Political reasons prevented the development of the area

1. The inadequacy of the local government's planning techniques and limited legislation.

6.2 Urban Transformation Erbil Citadel and Surrounded Area

In this part of the study, information about the spatial and socio-economic impacts of Urban Transformation Project will be given in the historical data of Erbil historical castle and its surroundings obtained from the related questionnaire.

6.3 Current Situation of Planing Area

In the studies made in the planning area, some of the information for about the population and structure status has been reached.

TABLE 2
POPULATION AND NUMBER OF BUILDINGS IN THE
CONSERVATION AREA OF OLD TOWN ERBIL

Name of District	Population	Number of Family	Number of Residence	Nuber of Workplaces	Public Area
Citadel	40	8	575	176	
Arab District	2658	570	551	745	10
Tajeel District	3800	791	816	930	8
Khanaqa District	5417	1078	5741	4107	21

83% of the existing buildings in the city are for residential purposes and 12% for commercial purposes seems to be used. It is understood that 95% of the buildings in the city are in residential and commercial use if the use of non-residential buildings, which are defined as the mixture of residential and non-residential buildings, is generally considered to be trade use. In the Arab, Taajeel and Khanaqa, there are mostly small-scale business and commercial facilities as a residential area. Among the neighborhoods that constitute the historical city of Erbil, the neighborhoods with the highest number of residences, the Arabs, the Tajeel with the least residence are the Khanaqa neighborhoods. Sultan Muzaffer, Bata and Shex Choli streets are the places where the most important commercial activities are realized with different quality of establishments, shops and businesses.

6.4 Spatial and Social Status of Transformation Area

In this section, the structure and characteristics of the population in the transformation area Erbil old town is studied. Social data sources related to the transformation area were obtained from inland observations, in-depth interviews with residents, residential and user surveys made in the area.

When examining the age pyramid that lives within urban boundaries;

Appears that the area is crowded with middle and old population

(0-19) the age group 35% of the total population

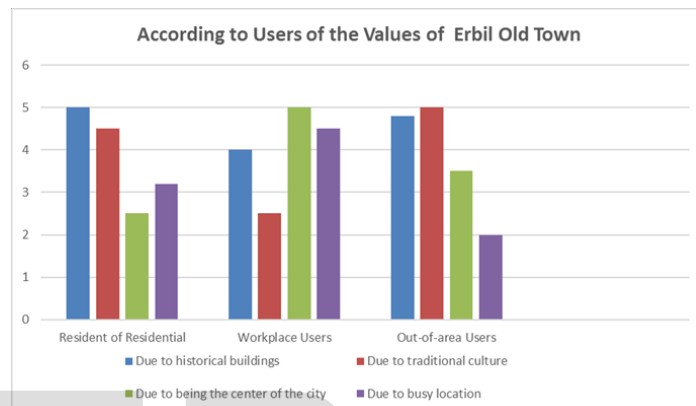
(30-55) age group seems to constitute 48% of the total population.

6.5 Immigration status of old town Erbil and reasons why living people prefer Citadel

Migration from the beginning began in 1940 and the old city was occupied by poor families as well as another impact on population growth in the city. Due to the size of population to meet the urban needs and the inadequacy of the development areas of quality in the face of the population increase rate, the density increased and the areas of the facilities and the urban service were inadequate. As a result, it creates

high density and low-quality areas. local people have chosen this area because they are in the center because the reasons for living here are in places where they are born and raised and because living households are close to their workplaces. But due to conservation work carried out in the urban protected site, the houses were evacuated and the land was given as compensation to the household. The people live in difficulty with not adapting to their new life, at the beginning of which is the distance from the center, the lack of alignment with the new circle can be listed.

TABLE 3
FROM WHICH ANGLES THE SPACE USERS FIND THE ERBIL OLD
TOWN VALUABLE



6.6 What was needed most in Erbil old town

What the Planning Area users need most is the protect area is important in terms of continuity. In the fieldwork studies the list of needs expressed according to the three groups is as follows:

1. For residents: The most needed items in the conservation area are well-kept streets, health facilities, infrastructure, parks and green areas, educational facilities, children's playgrounds.
2. Workplace representatives: The most needed items are well-maintained streets, parking lots, regular pavements, cultural facilities, historic restoration, parks and children's playground.

Out-of-area users: The most well-maintained streets, regular pavements, cultural facilities, educational facilities, historical restoration, parks, parking lots, children's playgrounds and restaurant-café.

6.7 Urban Transformation Potential for Urban Historic Town in Erbil

In the Erbil old town, the maintenance of the central business field functions, the ongoing urban transformation project creates significant potentials and opportunities for transformation into the area. In this context, transformation interventions in the old town Erbil will help develop the area. These are;

1. Possibility to take part in a holistic planning framework
2. Conservation, vitalization, functioning and reuse approach
3. Transformation is a process and team work, based on participant and cooperation of realization

The old town of Erbil, preservation, revitalization, functioning, culture, center, maintenance of tourism functions and their focus on these uses.

Due to incompatibility with the historical environment in the historical Erbil old town Urban Protected Site, primarily is necessary to provide arrangements. Most of the historical buildings have been destroyed to a great extent and the construction of these structures must be made in a manner compatible with the original style. Functioning and restoration process together to speed up the protection of the situation will contribute to Erbil's unique healthful construction. In addition, new structures in 3-5 floors built in uncontrollably modern buildings in old town cause damage to the city texture. At the same time the city is influencing the skyline.

7 CONCLUSION

Today, with the development of technology and the rise of culture level the importance of protection is increasing day by day. With the incorporation of historical texture into the world heritage, the effects of the country and world economy and cultural development are also better understood over time. Cities are living organisms as social living spaces and change over time. Erbil has a history of 6000 years old history dating back to the past.

The interest in tourism, especially cultural tourism, is at the forefront has increased the interest and protection of the areas. People come to these areas to see, learn and feel what belongs to the old historical places. In this study, the results of the renovation work applied in the protection of the historical city of Erbil have been revealed. The transformation work initiated by UNESCO in 2007 is an important step for the repair and maintenance of the historic city of Erbil.

Especially in the developed world, the concept of urban transformation, which can be applied in various forms and techniques in developed western countries, has become a necessity for healthy and sustainable cities. The main aim of urban transformation can be described as restoring the unhealthy city parts that have economic, social and physical problems and getting them to the city.

There is an important conservation understanding in the world and the history of Erbil city is included in this process and included in the world heritage list in 2014. The general aim of this study is to discuss the urban transformation plan of the city of Erbil, how it affects the social, cultural and economic of Erbil city. Historical urban centers in the cities, despite their historical heritage, have become unable to meet their urban needs over time and have become more inclined to leave. This has led to the desire to revitalize old city centers and gain them to the city. With urban transformation projects, it is ensured that the problem areas are restored to the city as well as the protection and rehabilitation of the cities. The Revitalization Project of Erbil Citadel which is one of the important historical areas in terms of urban transformation project, is the subject of the study.

The realization processes of urban transformations and the relation with the socio-spatial structure are put into practice with different models. The transformations we can call renovation, revitalization, gentrification and restoration are mainly depressed areas in the city center. The great change called globalization also affects city form.

It is seen that integrated with the historical city with its renovation project and housed and maintained in a holistic perspective and

comprehensive strategies. It is important to contribute to the analysis and planning of the area in terms of spatial, social and economic dimensions and the preservation of historical centers.

One of the most important problems encountered in the urban transformation project of the old town Erbil city is the difficulty of completely changing social structure with spatial change. In the urban renewal project of the old town Erbil, first of all it should be the basic principle of the project success that the survivors living there do not suffer. The resident owners are entitled to be persuaded and assigned to the new land the living conditions must be at a high level.

7.1 Spatial Results Obtained in Case Study

With the urban transformation project is seen that the change in the areas progressed positively. It is important in terms of preserving historic texture that the multi-storey buildings around the historical castle will be two floors after the project. Also prevents the urban skyline from deteriorating. In addition, the destroyed historic buildings in the historical city of Erbil has been built with its own unique architecture. At the same time, it was re-evaluated as a non-historical area in the region, a public recreation area and a city park. Include in the project, residents living in the houses were removed from their homes and the land which is far from the center as compensation is allocated. But the infrastructure of economic and socio-cultural relations is not planned, how people will live in a new region. The project may adversely affect the social relationships in the area.

7.2 Economic Results Obtained in Case Study

Together with the beginning of the urban transformation project, the value of the area and the rental rates have increased. The local government and UNESCO are economically stakeholders of the destruction and restoration work to be carried out in the field together with the urban renewal project of the Erbil old town. The renewal project of the historical area will provide both the strength of the economy and the protection of the continual vitality of the environment.

7.3 Social Results Obtained in Case Study

Socio-cultural change after the renovation project can lead to a change in the social structure in the area and the poor people have the possibility to move to new settlement areas in other regions of the city. In other words, urban poverty cannot be abolished by this transformation process, but is shifted only to areas other than certain regions of the city. This problem should be searched for at the outset of planning decisions, rather than searching the contents of the renovation projects of the main cause.

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