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THE ROLE OF URBAN PRESERVATION TO ACHIEVE SUSTAINABLE URBAN DEVELOPMENT – PRESERVING ERBIL CITADEL AS CASE STUDY

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ABSTRACT

Cities in the world transformed from traditional aspects to sustainable aspects, this transformation need to consider preserving urban heritage as one of the goals of sustainable development agenda 2030. From this view, the research problem appears from the lack of clarity of preserving urban heritage as part of culture and urban sustainability. So, the research aim tries to reach the role of urban preservation to achieve goals of sustainable urban development, and chose Erbil citadel as the first implemented preservation project in Iraq, which adopted 2014 in the world heritage list by UNESCO, which need to integrate preserving urban heritage with sustainable development goals. That will lead to prevent loss of heritage stock, and integrate all goals that contribute to revive the historical buildings in the life of city and society. The research concludes the continuation of this cultural heritage and its effectiveness in completing principles of sustainable development, especially, resettlement of the original inhabitants who removed from it, to be as integrated global model for the traditional human natural and cultural life, and integrated with surrounding urban fabric, instead of their decision to converted citadel as a museum.

Keywords: urban preservation, sustainability, development agenda, urban heritage

INTRODUCTION

Sustainable development is a multi-dimensional policy, integrate six fields of knowledge: political, economic, social, environmental, aesthetic and cultural (Szarek-Iwaniuk, 2021). According to sustainable development agenda, sustainability will be achieved in the world through 17 goals by 2030, sustainable city appears in the goal No. 11 (UNITED NATIONS, 2015; UNDP, 2015), which focus on how to make cities and human settlements inclusive, safe, resilient and sustainable. Urban sustainability depends on three main pillars (social, environment, economic), and they added 'culture' as fourth pillar in Habitat III. So, human heritage considered as part of components of the city and reflect culture of the society, preserving for this urban heritage means sustain the resources of the city, as well as reduce the consumption of built up area.

The United Nation (UN) convention on housing and sustainable urban development 'Habitat III' that take place in capital of Ecuador, submit the New Urban Agenda (NUA), which offer proposals of sustainable development for the next twenty years



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(Cities Alliance, 2015). It is focus on several fields, one of its, cultural diversity as sources of improvement for humans, and supply a vital contribution to sustain cities (UN Habitat III, 2017). The agenda provide an action plan for individuals, groups, organizations and governments, it conjointly seeks to the seventeen sustainable development goals and 169 targets. So, these goals and targets can be achieving over fifteen years in areas of the world (UNITED NATIONS, 2015). The action plan of this agenda depend on: comprehensive development plans, urban management, environmental planning and socioeconomic issues (HABITAT III, 2016-1). The main core of this paper appear from recognition of social actors focus on reflecting identity, cultural diversity, and protect heritage, where the research problem appears from the lack of clarity of preserving urban heritage as part of culture and urban sustainability. And the research aim tries to reach the role of urban preservation to achieve goals of sustainable urban development, through the first implemented project in Iraq of historical Erbil citadel preservation.

SUSTAINABLE URBAN HERITAGE

The relationships between culture and heritage empowering the concept of sustainability, along with all other components that make cities more flexible and dynamics. These relationships appear through social and cultural diversity and it's involve the city with more variety and distinction in genus, identity, race, worship, heritage, human products, and collective memory of social group. It needs produce prospects of integration and strong relations, in order to regenerate the spirit of city life (HABITAT III, 2016-1).

Cultural heritage is outlined in strategies of urban development as a result to preserve historical buildings and traditional urban fabric (HABITAT III, 2016-2). It is strengthening identity of societies, and variety of different cultures. As well as emphasis their creative urban products along time, to qualify human needs within contemporary city, which appear through numerous global agreements to documented heritage around the world. There are many challenges faced cultural heritage, such as: the erosion of heritage and cultural identities, shortage of recognition on the function of urban space in reinforcing people's arts, restricted access to cultural facilities and neglecting societal cultural and initiatives of community. So, many approaches acknowledge build on native cultural heritages, which merit professional practice to protect cultural heritage according creative strategies to support experience and appropriate (Duxbury et al., 2016). Therefore, urban cultural strategies and implementations that acknowledge variety within the urban fabric, to reduce critical pressure, safeguard heritage and build safe public places as well as inclusive community neighbourhoods according goals of sustainable development (HABITAT III, 2016-1).

Cultural heritage

Cultural heritage divided to tangible and intangible heritage, it means memorial buildings and sculptures, complexes or historical sites, valuable elements, antiquarian founds, scientific documentations and anthropological references. Heritage can be bridging the gap between multi generations. Therefore, it is resource of social engagement and belonging passion (Chohan & Wai, 2005). The inventive implementation to preserve tangible and intangible heritage, should be combine human activates in the beginning of the comprehensive development plan according sustainable dimensions. The multi range of cultural heritage will facilitate communities which activate citizens, achieve the luxury of decent living for the human being and build safe environment. So that, it is an important field in the comprehensive development plan, land use plan, code of practice, and regional planning policies, in order to take into account their roles determine identity. As well as put action plan in strategies of urban renewal of historical city centres, to secure identity and achieve social cohesion and high level norms for citizens. To reach flexible plans contribute in achieving social identity and human habits, in order to save human cultural heritage (HABITAT III, 2016-2).

Sustainable heritage preservation

Sustainability will run city resources and turning into reality, to ensure economical use of resources. One of these resources is the protection of heritage and recognize as central to the sustainability. Several urban standards will promote awareness in the protection of cultural heritage through sustainable dimensions (Guzman et al., 2018).

The destruction of urban heritages, especially in historical city centres, will led to immigrate citizens out these centres and cause socio-economic problems (Biegańska et al., 2019), these problems appear in Berlin city centre after post-war reconstruction (Mathey, 2018). So, heritage preservation indicates to save heritage from dangerous urban problems, but when it destroyed, it is difficult to rebuild it. Therefore, preserving sustainable heritage means preserve the preferable values of the important buildings and make balancing with cost, according era spirit and human demand (Chohan & Wai, 2005; (Labadi et al., 2021). This combination between rebuild heritage and human demand appear in the reconstruction of Nuremberg old city after II world war, and especially preservation of old castle as 'the beating heart of the city' (Macdonald, 2009). In order to sustain the resources of the city, as well as reduce the buildings consumption.

METHODOLOGY

In the same direction with "2030 agenda for sustainable development, specifically goal eleven on sustainable cities and target 11.4, the important factor is combining with policy targets to utilize the ability of the objective frameworks for inclusive, safe, resilient and sustainable cities" (HABITAT III, 2016-2; Labadi et al., 2021). The new urban agenda is a good chance to compose cities again, which face many problems and challenges. Cities need to be as dynamic system submit the chance for community to contribute in this composition, to confirm tangible and intangible heritage as part of city layers, as well as, part of sustainable development, in order to provide a chance to change direction from the old vision, to new vision, focusing on people-centred the comprehensive development. Furthermore, conservation of sustainable heritage has the capacity to bridge knowledge gap and solve city problems, according associated with strategies of urban renewal, through rehabilitation, regeneration, redevelopment and improvement of the historical cities (Guzman et al., 2018).

To solve research problem with the lack of clarity of preserving urban heritage of the city as part of culture and urban sustainability, the paper will take benefits from the approach of integrating urban preservation of heritage with sustainable development, to reach the aim of the role of urban preservation and its contribution to achieve goals of sustainable urban development, through the first implemented project of historical Erbil citadel preservation, which adopted 2014 in the World Heritage List (WHL) by UNESCO.

The theoretical approach offers an empirical foundation for monitoring practice (historical Erbil citadel preservation) that enhance the sustainable control of city heritage, within the line of the new development agenda and bridging the gap between theory and practice. Therefore, urban development of Erbil city and preserving citadel will take analytical methodology, which seeks to:

- 1. Determine the related principles in goals of sustainable development agenda, and study the urban development integration between Erbil city centre and its core of citadel, through multi levels of urban preservation. As well as integrate all goals that contribute to revive the historical buildings in the life of city and society;
- Prevent loss of heritage stock, and specify the mechanisms of urban preservation of cultural heritage that achieve principles of sustainable development agenda, to enhance cultural identity;
- 3. Searching for the human activities that increase interaction between peoples, with limited accessibility to these activates which reflect cultural diversity as dominant characteristics at level of tangible and intangible heritage of Erbil citadel;
- Locating public urban spaces which works as join between citadel and historical city centre, and

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fostering potential energy of culture in the role of public space that enhance social interaction and activate economic resources to support the sense of living place and belongings.

Erbil citadel

Erbil citadel is a reinforced settlement located in Iraq – Kurdistan province – Erbil governorate, on top of an imposed hill created by many civilizations built on it. A continuous wall of high facades from the 19th century reflect the visual effect of castle that dominates Erbil's cityscape. The citadel has a distinctive design from the late Ottoman period. Published historical records document the settlement antiquity corresponds to ancient Arbela, a major political and religious centre in Assyrian civilization, which is belonging to 6000 years BC (https://whc. unesco.org) (Fig. 1). "Erbil citadel located in the city centre. It has semi-circular form with height 30 m. Many civilizations and peoples lived on it, there are 506 houses spread in three districts: Sarai, Takya & Top khana. Its buildings are built according to a distinctive architectural style. Additionally, there is the great mosque and bathtub built in 1775 AD" (Raouf, 2010) (Fig. 1 and 3).



Fig. 1. Preserving heritage inside urban fabric Erbil citadel *Source:* own photos, 2013.

Cultural heritage attraction in Erbil city centre is represented by the citadel and surrounded old parts, which had distinct architectural heritage, with the special value of the citadel as a monument and as one of the ancient cities in the world. The main land use of Erbil citadel was residential buildings, with heights between one and two floors, and only the minaret of mosque appears from the cityscape (Fig. 1). The citadel surrounded by commercial activities, as well as the ancient Bazar as a traditional market. The planning of historical city centre contain citadel with organic urban system, reflect characteristics of traditional cities (Fig. 2). The citadel and surrounded market covers most of the necessary needs of city life and inhabitant's requirements.

Most of Erbil city centre had poor building conditions, caused by the progress of time and

lack of maintenance. The city centre suffers from major problems like: neglecting for maintenance especially for the old buildings, bad condition for finishes and paving, severe lack of services and infrastructures, lacks of vitality at night-time, the isolation of the citadel from the traditional fabric by the first ring road, which isolate it and give it the character of a monument more than part of the whole urban fabric of the centre, all that lead for need of new intervention to renewal this urban heritage (Raouf, 2010). In the 2004, Erbil citadel choose as one of the properties inscribed on the world heritage. It is a famous archaeological location that witness dramatic transformation within the past 50 years ago. Because of the lack of interest in this location in ancient time, "Erbil municipality decided to take part in an important project to revitalize the citadel

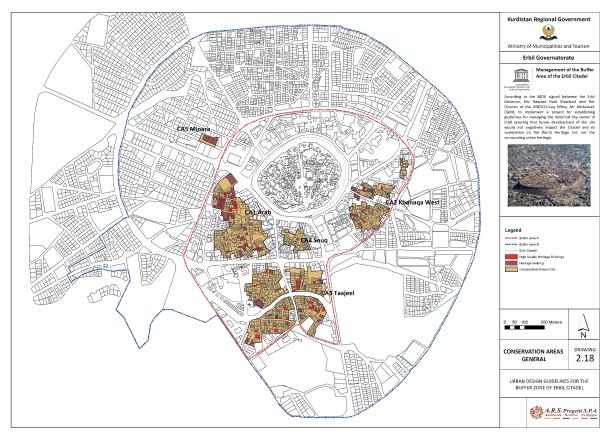


Fig. 2. Erbil city center – Conservation area general *Source:* UNESCO (2012).

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(still in progress), organized by the High Commission for Erbil Citadel Revitalization (HCECR) and supervised by UNESCO" (UNESCO, 2012).

In order to make new development plan, "Erbil citadel management plan follows the compilation of two other important documents: The Conservation and Rehabilitation Master Plan (CRMP), and buffer zone guidelines. So, UNESCO and Erbil governorate / HCECR working together on this project" (UNESCO, 2012). These documents have set the basis for the development of the present management plan, which provides strategies for sustainable conservation, rehabilitation and development of the citadel of Erbil.

The properties inside citadel belong to private and public entities, and within the nineteen seventies, public establishments (Erbil municipality, department of antiquities, awkaf) began to get buildings inside citadel in order to preserve its, but, only few interventions happened till 2004. The Erbil municipality declared to empty the location in 2006, and according to decreeing the institution of a (HCECR), to be accountable of making certain that the architectural values and valuable citadel heritage are preserved, reinforced, and revived. This new establishment and development plans, lead to necessary step by the launch of the UNESCO/ HCECR Erbil citadel revitalization project (UNESCO, 2012). In late 2007, the citadel was unoccupied and ready for conservation purposes, as well as implementing Erbil citadel revitalization project adapted by Erbil city master plan 2007.

In order to analysis urban development strategy, the effect of the citadel on the urban growth of the Erbil city must first be clarified, as well as the effect the

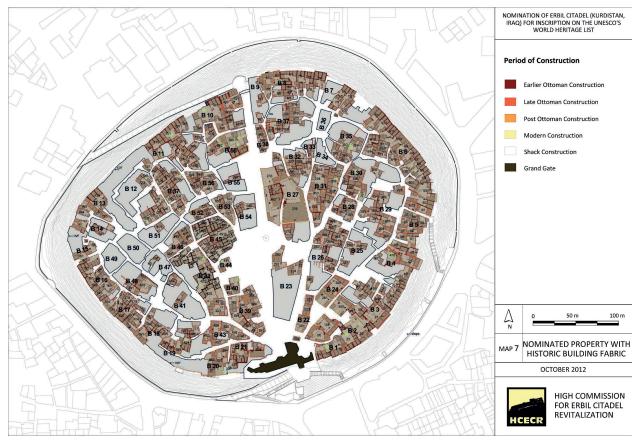


Fig. 3. Erbil citadel – historic building fabric *Source*: UNESCO (2012).

growth of the surrounding urban fabric. The citadel has a great influence on the distribution of uses in the surrounding city centre, as well as the distribution of the first ring road around citadel will lead all growth plan of Erbil city.

Development plan submit many proposals including: conserving significant heritage and important buildings, creating pedestrian routes network, providing a green network of open spaces, restructuring dilapidated areas, maintaining residential uses, maintaining an administrative centre in the city centre of Erbil, developing an aspect of tourism in the city centre, reinforcing and increasing commercial activity, and encouraging new business and financial development. Heritage elements were maintained the citadel, bazaar and traditional urban fabric, and different levels of heritage buildings were identified (Fig. 2). This option conserves the maximum amount of existing urban fabric, including existing landmarks and entrance corridors, thus ensuring the city centre's role as a tourist and cultural destination (Ministry of Municipalities Kurdistan, 2007). The citadel revitalization plan submits the subsequent aspects: protective and rehabilitating thirty percentage of heritage buildings, supply tourist spaces such as (restaurants, cafes and entertainments area), rehabilitation of heritage buildings like traditional bathroom as museum, and rehabilitation of the mosque, organize the traffic system to improve accessibility for all tourist facilities (Fig. 3) (Al-Hinkawi & Alkubaissy, 2016).

RESULT & DISCUSSION

In order to reach research aim, and determine the role of urban preservation and its contribution to achieve goals of sustainable urban development, especially goal 11 on sustainable cities and saving culture heritage, which appear in target 11.4, the applying research methodology and indicators will take Erbil citadel as case study (Table 1), in order to determine these roles through:

1. The related principles in goals of sustainable development agenda, and integration between Erbil city centre and its core of citadel achieve by:

- a. The master plan of Erbil 2007 suggested new activities were proposed in the district, such as museums, multi-purpose halls, etc. This could be a positive sustainable urban factors to develop urban tourism in the district, but it neglected the potentiality of the cultural heritage as main attractions that could be used to develop city centre activities for 24 hours per day, and the possibility of using the traditional buildings as attractions and tourist facilities;
- b. The proposed urban development strategy is based on the idea of highlighting the citadel as a part within a system of open spaces. But locating many huge open spaces around citadel, will make it as monument and isolating it from the city urban fabric and emptying the space inside the citadel from daily life.

Integrating between sustainable development and cultural heritage of Erbil could be invested as a national and international tourist destination, but it need to provide the good infrastructure of tourist facilities. As well as integrate these goals that contribute to revive the historical buildings in the life of city and society.

- 2. Prevent loss of heritage stock, and specify the mechanisms of urban preservation to enhance cultural identity, will appear from:
 - a. Preserving of Erbil citadel can be benefit from economical resource of cultural heritage attractions by adapting urban strategies like regeneration, rehabilitation and revitalization;
 - b. Conservation and restoration of traditional urban fabric, buildings, streets, and open spaces, that could be use with original functions, or adaptive reuse with suitable functions that didn't harm the traditional buildings.

The strategies of urban renewal depend on the level of the preservation, rehabilitation of the surrounding urban fabric in order to integrating with the citadel and highlighting its role in its formation, in order to activate Erbil cultural heritage and achieve principles of sustainable development agenda.

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Research	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
methodology	Erbil citadel case study	Erbil citadel case study	Erbil citadel case study	Erbil citadel case study	Erbil citadel case study
Sustainable development agenda	Comprehensive development plans	Urban management	Environmental planning	Socio-economic issues	Collective memory of social group
	Erbil Master Plan (CRMP) Development, Conservation Rehabilitation, and buffer zone guidelines	Collaboration between UNESCO & HCECR, as well as Erbil Municipality, Department of Antiquities & Awkaf	implementing Erbil Citadel Revitalization	Economical resource of cultural heritage and adapting urban strategies like regeneration, rehabilitation & revitalization	Some traditional functions & events considered
Challenges faced cultural heritage	The erosion of heritage and cultural identities	Shortage of recogni- tion on the func- tion of urban open spaces in reinforcing people's arts	Restricted access to cultural facilities	Neglecting societal cultural and initiatives of community	Cultural diversity
	Erosion happened when Erbil Municipality declared to empty the location in 2006. In late 2007, the citadel was unoccupied	Providing a green network of open spaces, restructuring dilapidated areas	Weak condition for finishes and paving, services and infrastructures	Neglecting community initiatives for maintenance especially for the old buildings, and lack of vitality at night- time	Isolate the citadel from community & the traditional fabric by the first ring road, and give it the character of a monument more than as part of urban fabric
Comprehansive development of cultural heritage	Facilitate communities	Activate citizens	Achieve the luxury of decent living for the human being	Build safe environment	Support the sense of living place and belongings
	Conserving significant heritage and important buildings	Need to activate Kurdistan citizens & activate residential uses	Create livable places & pedestrian routes network, and develop an aspect of tourism in the city centre	Influence citadel on distribution of uses in the surrounding city centre, and the first ring road lead urban growth	Reinforce and increase traditional residential & commercial activity, and encouraging intangible heritage
Strategies of urban renewal of historical city centres	Secure identity	Achieve social cohesion	High level norms for citizens	Human habits	Flexible plans
	The identity is very clear in citadel, bazaar and traditional urban fabric, and different levels of heritage buildings were identified	This is one of the important point that not considered in the renewal strategies	Ensuring the city centre's role as a tourist and cultural destination, but neglect the citadel as ancient inhabited area	Supply tourist spaces like cafes, restaurants, etc, and adaptive reuse heritage buildings like traditional bathroom as museum & mosque	Conserves most of existing urban fabric, including existing landmarks, entrance corridors and organize the traffic system to improve accessibility for all tourist facilities

Table 1. Appling research methodology and indicators on the experiment of preserving Erbil citadel

Source: own elaboration.

- 3. Searching for the human activities that increase interaction between peoples, and maximize accessibility to the main activates, will appear from:
 - a. The improve of the existing buildings (inside citadel and outside) to be used as traditional facilities, as well as improve that specific traditional city life of the cultural heritage;
 - b. The loss of the urban fabric by demolish the north historical part and built a large commercial complex, in a historic area with modern features, lead to a change the characteristics of the urban fabric surrounding the citadel, as well as isolate urban fabric in which citadel stands out from it.
 Restore the demolished traditional market in the edge of citadel, as well as connect all the pedestrian routs of urban fabric with citadel, will reflect cultural diversity as dominant characteristics at level of tangible and intangible heritage of Erbil citadel.
- 4. Locating public urban spaces which works as join between citadel and historical city centre, and support the identity, sense of living place and belongings, could be achieve through:
 - a. The citadel is a main node of Erbil city centre, its morphology appears from citadel as dominant within a compact, small cells, low rise urban fabric, as well as the main feature in the city scape. This is should be a main factor in the integrated urban development;
 - b. The growth plan of Erbil city, shown new dominants nodes and buildings, which cause losing citadel centrality, this will affect the growth and shape of the city centre, and will reduce the importance of the main node of citadel.

Urban development plan of Erbil submit many aspects emphasized preservation of historical value and identity of the city, but the analysis shown changing the architectural style of the parts surrounding the citadel from traditional to modern, and converting the open areas into outside instead of inside the citadel. These need to adapting and fostering potential energy of culture in the role of public space that enhance social interaction and generate economic resources.

CONCLUSIONS

The preservation of the Erbil citadel as part of the final list of UNESCO, was carried out under the supervision of international organizations and local governments, the development plan and mechanisms for action, apply global standards, and systematic implementation steps. But in some phases is not in line with the criteria of sustainable urban development, when the residents were removed from citadel, and converted citadel into a museum, instead of being an integrated global model for the traditional human natural and cultural life, which lead to isolate it from the rest of the city. So, paper recommended:

Prevent loss of heritage stock, and integrate all goals that contribute to revive the historical buildings in the life of city and society.

Encourage the variety of culture, and specify the dominant characteristics at level of tangible and intangible heritage.

Resettlement of the original inhabitants inside Erbil citadel as sustainable neighbourhood, to bring back traditional life, and use the mechanism of adaptive reuse of some historical buildings to be tourist dwelling or hotels.

The preservation methods need to be on multi levels, not only preserving on tangible heritage of Erbil citadel, but need to preserve of historical urban fabric and urban spaces, as well as intangible heritage and human city life.

Confirm the integration of the citadel with the adjacent urban fabric through the integration of the movement system and pedestrian routes.

The necessity of the continuation of the citadel life by finding activities related to people's daily life in addition to tourist activities and entertainment.

Take into account the architectural values of the urban context of the citadel in the surrounding urban fabric to support the visual harmony and make coherent structure.

Maintenance and rehabilitation of heritage buildings and adaptive reuse in a way that generates benefit to the city and enhances the historical and heritage value.

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Preserving of the buildings and heritage houses inside the citadel and rehabilitating them to suit the tourist activities

Restore of old buildings and cover open spaces in the buffer zone around the citadel, in order to integrate the Erbil citadel and connect it with traditional urban fabric.

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