ABSTRACT: Buffer Zone is a concept introduced in the literature of heritage conservation as an important tool for conservation of artifacts or sites inscribed on the World Heritage List. It is based on the argument that the context surrounding the artifact is an essential component of its conservation strategy. The changes made and the interventions pursued on the environment may have a direct impact on the quality of World Heritage Site itself. Buffer Zones which may not be in themselves of exceptional world value are intended to protect those sites from the negative influences of their contexts. Based on these arguments, the definition of a Buffer Zone for Erbil Citadel and the introduction of specific regulations for this area were the conditions to add Erbil Citadel to the World Heritage List in July 2014. Adaptive Re-Use was recognized and adopted as a principal strategy in the revitalization of Erbil Citadel and its Buffer Zone.

The current research intends to focus on Erbil Citadel Buffer Zone. It aims at defining and evaluating a particular way of approaching this area within the framework of the general theory of buffer zones surrounding World Heritage Sites. This is to be made in relation to the strategy of Adaptive Re-Use adopted for revitalization processes.

The method consists of the following stages:

1. Introducing the general theory of Buffer Zones surrounding World Heritage Sites by reviewing theoretical statements about the concept of buffer zones and its applications within various professional practices in different world contexts.

2. Analyzing and evaluating Erbil Citadel Buffer Zone with a focus on the potentials of adaptive re-use as a protection strategy.

3. Defining the uniqueness of Erbil Citadel Buffer Zone and the implications of this for the adaptive re-use of this zone.
1 INTRODUCTION:

In July 2014 Erbil Citadel was officially inscribed in the World Heritage List which placed it on the world map of important historic places. It implies that specified procedures related to the specific regulation of planning and designing in Erbil Citadel and its surrounding Buffer Zone must be followed to maintain the protection and sustainable management of the Citadel. The World Heritage Committee urges that the required standards used in adding Erbil Citadel to the list of the World Heritage are met. The Buffer Zone provides an important level of additional protection to the Citadel from external threats that could affect its exceptional heritage value. The relationship between the Citadel and the buffer zone is an important topic in most of the studies and literature that deal with the rise of the city of Erbil and its evolution over time. For instance, the study of Doxiades (Harrington, 2014), made in the context of the preparation of Erbil City Master Plan in 1958, mentions the fact that Erbil Citadel has gone, over time, through three spatial phases:

- That the Citadel was the entire city of Erbil.
- That the Citadel used to represent the bulk of the city of Erbil
- That the Citadel is a small part of the city of Erbil and later became one of its residential neighbourhoods.

1.1 The Concept of Outstanding Universal Value

The World Heritage Committee has determined ten criteria (Centre, 2008, p.20-21). Meeting one or more of them is a condition for being inscribed in the World Heritage List. Besides, for the site to be considered as of “outstanding universal value”, it should meet the integrity and/or authenticity conditions. It should also have enough protection and management systems that guarantee its conservation. (ICOMOS, 2009)

1.2 The Erbil Citadel: An Object of Outstanding Universal Value

1.2.1 Erbil Citadel: Criteria for the status of World Heritage site

Erbil Citadel complies with three of the specified criteria by the World Heritage Committee. These are the third, fourth and fifth criteria (Centre, 2008, p.20). For the third criterion, Erbil Citadel shows exceptional evidence of cultural traditions and civilizations that vanished. It includes layers of thousands of years of various human settlements and civilizations. At the same time it is a rare witness of settlements that organically grew in cumulative layers, as they were always re-formed on previous communities. For the fourth criterion, Erbil Citadel is considered an exceptional model of a multi-layered archaeological hill that emerges from the surrounding landscape. The physical structure of the Citadel city is characterized by an urban structure on the top of the hill that has grown through the ages. It’s identified border shape led to some extent to the changes that happened in the urban texture, as at the same time it allowed the space to adapt to the changing needs through thousands of years. For the fifth criterion, Erbil Citadel is considered an exceptional model of a traditional human settlement whose equivalents were lost in other places of the world because of changes caused by modernity, which cannot be eliminated, (Centre, 2008, p.20). The main feature is the urban shape on the top of an artificial hill surrounded by a circle of houses whose fronts face the city below and is featured with a network of narrow alleyways that branch radially from the heavily built main gate (Abbas, 2014).
1.2.2 Erbil Citadel: The Criterion of Authenticity
Erbil Citadel also complies with the criterion of authenticity. The Nara Charter states that “Approaches should also build on and facilitate international cooperation among all those with an interest in conservation of cultural heritage, in order to improve global respect and understanding for the diverse expressions and values of each culture” (ICOMOS, 1994, p.47). Authenticity is defined as a standard of a cultural site or practice or anything that transfers a cultural value and can be distinguished as a meaningful expression of a developed traditional culture and/or excites an echo of the social life and the sense of a group identity (Plevoets & Van Cleempoel, 2011). Authenticity also means that the importance of the world heritage site is self-evident and clear. Erbil Citadel meets to a great extent the authenticity criterion from different aspects. From an archaeological point of view the site is valuable because it didn't undergo excavations and conserves all its archaeological layers. (ICOMOS, 1994)

The site is a settlement that grew without planning and is influenced by the artificial topography of the hill. The old urban shape of the Citadel on the hill is completely original, as its building texture from the Late Ottoman period c. 1880 – 1918 still exists on a large scale. (Al Yaqoobi, 2012). Demolition and abandonment were not accompanied by changes of the materials or modern and conflicting shapes. The site has kept the original urban planning that did not change substantially as a result of 20th century's interventions. It kept all features of a settlement that had grown organically within identified borders created by a man-made terrain. Moreover, the temporary housing that the new-comers, who lived on the site for some decades, added, could be considered as part of the history of the Citadel and another element of its originality of use and function.

The site also completely conserves its original spirit and inspires an emotion for the place. It is not just a physical landmark and a symbolic evidence in the urban character of Erbil city, but it is also a traditional place where in the past people gathered for Friday prayers (HCECR, 2012).
1.2.3 Erbil Citadel: The Criterion of Coherence
Erbil Citadel also complied with the “perfection standard condition”.
The related literature defined “integrity” as the measure of completeness, where the natural and/or cultural heritage and its features have not changed. Checking the integrity conditions requires estimation of the range of the cultural site including all the necessary elements. This discloses, firstly, its outstanding universal value and, secondly, it shows so much has been measured that one can be sure that this is complete representation of the features and operations that show the importance of the site and does not suffer from the negative influences of development and/or negligence.
The perfection can be established from the mutual relationship between the factors, features and overall formation which is part of it and includes all the visual/aesthetic integral, the historical/constructional integral and social/functional integral (ICOMOS, 2009).
Based on the relevant documents, Erbil Citadel is considered as having achieved perfection from the point of view of being an undamaged archaeological human settlement, still representing a basic monument in the urban scene of Erbil.
It includes more than 30 metres of archaeological accumulative layers with their beginnings belonging to very early stages of urbanization in the Mesopotamia country. The comprehensive urban shape of the Citadel city on its top is an integral part of it. This is due to the continuation of the mutual relationship between accumulation of the manmade hill, the initial plan of the city and the successive development. The texture of the urban settlement on the Citadel is pretty much intact and can be recognized clearly in the division of the buildings and street corridors. The demolition operation executed by the former regime had opened some spaces and many of the buildings suffered from natural evanescence in the past 50 years. But they will be filled carefully in accordance with the recommendation of the Erbil Citadel Management plan, to bring back the citadel to its role as a central centre for Erbil and its people. Though its integrity is influenced to some extent as a result of its abandonment and the intended demolition operations that happened in the last 30 years due to the modern constructions and infringement on the surrounding street (Al-Jameel, 2015). But this did not influence the urban shape and the clarity of the urban texture.
The plan was processed with an inclusive program of conservation and rehabilitation by the High Commission for Erbil Citadel Revitalization with the assistance from UNESCO. (HCECR, 2012).

1.2.4 Erbil Citadel: Protection and Management Tools
Finally, and for the purpose of preserving Erbil Citadel its exceptional world value underwent a variety of procedures to ensure effective protection and management for the cultural site. The citadel is under national protection since 1937 according to the condition of Archaeologist and Culture regulation no.59 for the year 1936 and its subsequent amendments. In 2012 the official accreditation was done (HCECR, 2012). That provides inclusive protection and rehabilitation of the site. In fact this plan followed two important charters which are the Conservation and Rehabilitation Master Plan 2011, which provides an inclusive framework to all the cultural buildings of the citadel and the Urban Design Management study (Progetti, 2013). This latter study provides framework for the context at which the Citadel is located. Actually all these studies provide the necessary politics and strategies to a sustainable preservation and rehabilitation of Erbil Citadel (HCECR, 2012).

2 RESEARCH PROBLEM, GOAL AND METHOD
The current research deals with the surrounding buffer zones of Erbil Citadel. It aims at identifying and evaluating the significance of dealing with the buffer zone of Erbil Citadel within the general frame of the theory of buffer zones surrounding world’s heritage sites, it shows the role of the adjusted reuse strategy that has been followed in the revitalization process of the citadel and its buffer zone. To achieve the aim of the research the method employs the following stages:
1. Identifying the main aspects of the general theory of the buffer zones surrounding world’s heritage sites.
2. Analysing the buffer zone of Erbil Citadel.
3. Conclusion: the uniqueness of the buffer zone of Erbil Citadel.
3 BUFFER ZONE

3.1 Definition of the buffer zone concept

The buffer zone is defined as the area surrounding a world cultural site where legal and/or customary determinants are imposed on utilizing and developing it to give additional protection layer to the site (Centre, 2005). This domain is identified in relation to the world cultural site and next to it, it is meant to be a tool to facilitate the protection, management, perfection, originality and to sustain the exceptional world value of the world cultural site.

On the other hand, the buffer zone is considered as a management tool to deal with the transition from the historical aspects of the surrounding areas through additional protection. This serves to protect specific aspects of the site from external threats (ICCROM, 2009). “A buffer zone is a well-defined zone outside the protected area whose role is to shield the cultural values of the protected zone from the impact of activities in its surroundings. This impact can be physical, visual or social” (ICOMOS, 2011, p.4). It is a concept that was proposed as a tool to face external threats to which the site may be exposed. It can help to preserve aesthetic, historical or cultural values and to guarantee that the tourist activities develop while preserving the natural, cultural and historical integrity of each place. (Carreno, 2006)

3.2 The Emergence and Evolution of the Buffer Zone concept over time

The definition of the buffer zone went through continuous evolutions starting with what been set in the Operational Guidelines version 1977 considering it “the natural or constructional area surrounding the historical site and affecting its physical condition or in the way it is perceived sensibly”. This definition remained present in the Operational Guidelines till the version of 1987, where the definition of the buffer zone in 1988 version considers it “An area surrounding the location with restrictions imposes its use to give an additional layer of protection”. In the version of 2005-2008 of the Instructional principles the buffer zone is “An area surrounding the registered location in the Heritage list of legal determinants imposed on its use and development to give an additional layer of protection to it, which include the direct location of the site, important views and other areas or important functional characteristics to support the site and protect it”. (ICCROM) pointed out that the definition of the buffer zone is close to the idea that the buffer zone is a management tool to deal with transmission from the named location to its surroundings through additional protection maintain specific aspects of the site (ICCROM, 2009).

The concept of the buffer zone first appeared as a management method to conserve and manage protected natural areas. Afterwards, the concept expanded and became important for heritage as well, to preserve and manage the area. The buffer zone concept was used and applied in the beginning for the natural heritage sites then expanded to include the cultural heritage sites.

Herb has pointed that the Operational Guidelines version of 1977-1978 for the first time has clearly stated that the concept of the buffer zone applies to all the natural and cultural heritage sites equally (ICOMOS, 2009).

The buffer zones is one of the requirements of UNESCO for adding the historical site to the world Heritage list and is described as "the active protection for the historical site could be provided by assigning zone from the land surrounding the historical site of limited completion on its use" (UNESCO). The instructional guidelines of UNESCO pointed out in article 104 of it that “this buffer zone should include the direct location of the historical site and views and other important specifications which are considered from the functional aspect important to support the site and protect it” (Centre, 2012).

The most prominent advantage of the buffer zone is that it can set limits and protect views, locations, land utilities and other aspects. It also positively encourages the useful development of both the heritage site and the society around it.

Another problem is that even when the border of the buffer zone is clear and legally effective, it is not accompanied by the necessary regulators and politics to make its designation as a buffer zone really functional.
3.3 Evaluation/ Effectiveness of the Buffer Zone

ICOMOS pointed out that it is essential in evaluating the proposed approach and accompanied tools to be able to use that approach to control the threats of the exceptional value of the site. This means the prominent standard in evaluating the effectiveness of the buffer zone’s judgments is its influence in the outstanding universal value (ICOMOS, 2009). For the buffer zone to be effective as a management tool there should be a formulated statement about the outstanding universal value. This is how the authenticity and integrity criteria for the site should be understood. (Berkowitz, C. & Hoffmann, J.2009).

4 BUFFER ZONE OF ERBIL

4.1 The size/ area of the buffer zone

The area of Erbil Citadel is 10.85 hectares, representing the surface area of the hill within the surrounding wall. The surface area for the sloping surface outside the surrounding wall is 4.75 hectares. And the buffer zone covers an area around the Citadel of 268 hectares. It means the area of the buffer zone in larger than the Citadel area by a factor 25 and this gives an idea of the large extension of the buffer zone.

![Figure 3: Planning areas of the buffer zone of Erbil Citadel](from: Urban Design Guidelines for the Buffer Zone of Erbil Citadel 2011; drawing 2.2)

4.2 Criteria of Identifying Buffer Zone Boundaries

Sometimes the boundaries of the buffer zones were drawn by the Governmental agencies concerned in a tightly defined manner. This resulted in the inclusion of the features that are considered carrying or supporting the exceptional whole value for the historical site (Jokilehto, 2008). In some other cases, the boundaries were drawn more loosely as a result of the desire for accentuating the latent cultural values of the place with its former historical borders. In some other cases, the borders were drawn in a way very much compatible with jurisdiction authority areas for the responsible authorities (ICOMOS, 2009).
In some cases the boundaries are too tight to provide complete protection for the outstanding universal value for the surrounding area. This was the case with the evaluation of the Rideau Canal in Canada in 2007. Here the members of ICOMOS discovered that the buffer zone of 30 metres is not wide enough to protect the views surrounding the Canal. About the buffer zone itself whose boundaries were identified in the state legislations as a mandatory reflux zone for the flood zone for the neighbouring areas, the ICIMOS considered the borders of the specified location as sufficient for the protection of the structure of the Canal.

But it is also noticed that considering the visual space for the Canal one needs a clearer definition and suitable protection to ensure visual values for the place along with the environment values (ICOMOS, 2009).

The W.H.C. Centre study of 2008 pointed out the problem of the inability to identify the boundary of the buffer zone sufficiently to ensure the protection of the historical site against all the threats and external threats to its values.

An example in the case of high buildings located directly outside the border of the buffer zones l creating visual effect on the site and then threatening the exceptional whole value of the site (Centre, 2009).

Concerning the decision of how to apply the concept of the buffer zone, the specified related decision standards underwent many developments over time.

For example, “appropriateness” was the first standard that the Instructional Principle used for 1977. Then another standard, “feasibility” was added.

Herb pointed out that the standard of the definitions of the buffer zone in relation to the social, cultural and economic factors in addition to the physical parameters, could guarantee that the specified conditions will reflect all the cultural resource values of the place (ICOMOS, 2009).

Generally, concerning the buffer zone of Erbil Citadel, the standards adapted to identify the boundaries of the buffer zone are:

- Constructing an area of controlled development round and close to the Citadel.
- Maintaining and reinforcing the cultural and historical areas that developed as a gradual expansion of the historical city.
- Maintaining the urban, historical and cultural buildings in addition to the urban historical texture and the traditional features.
- Reinforcing the modern areas that maintain the traditional texture and building style where these areas represent transitional areas between historic and modern Erbil.
- Maintaining and reinforcing the views and sense experience for the Citadel from the main radial streets (Progetti, 2011).

From a more detailed aspect, we see that the boundaries of the first sub zone were set in a way to ensure inclusion of the historical city. This zone includes the historical buildings distributed in the Arab Quarter, Taajeel, Quarter and Khanqa Quarter surrounding the Bazar. These historical areas share with the Citadel some urban and architectural features from the nature of their urban texture and streets lay out, together with the existence of many buildings with spaces with one or two floors of brick. This zone also shows a very close physical relationship with the Citadel. Through it one can get to the Citadel. Therefore this sub-zone will be subject to high level determinants. In contrast with this a second sub-zone has been defined which features significant commercial and residential buildings. Its relation with the Citadel is a visual one through the radial streets that cross the area toward the inner rings and the Citadel itself.

Most of this zone contains modern constructions and it should be subjected to stricter determinants designed to protect the visual corridors towards the Citadel.
4.3 The Number of Buffer Zone Levels of Erbil Citadel

The study of (HCECR, 2012) pointed out that the analysis of the urban texture in relation with the Citadel led to the identification of two levels of protection depending on the criteria explained in the guidelines about the Buffer Zone. The first level relates to the surrounding area of the Citadel. The second level is about the broader context. Therefore the buffer zone has been divided into two rings which are ring A and ring B, depending on the nature of the recommended intervention, including:

-Ring A from the buffer zone: It includes the area directly surrounding the Citadel (between the Citadel and the first circular road) in addition to the historical area, in the Taajeel Quarter. This area is characterized by a high cultural value and is therefore subject to a high level of protection procedures.

-Ring B from the buffer zone: It includes the area between the first circular road, the Mudhafaryah Road, and the second circular road in addition to the area surrounding Manara garden. This zone is subject to a lower level of protection procedures. Because In the lower city Al-Mudhafaryah (known as Choli Minaret) survives as the only above-ground monument dating back to the 12-13th centuries AD (ICOMOS, 2014, p.80).
4.4 Composition of the Buffer Zone of Erbil Citadel

The buffer zone of Erbil Citadel is located on a level area surrounding the Citadel. It consists of a homogenous residential texture surrounding the Bazar area in the centre of Erbil city. This texture represents the initial expansion of the Citadel to the surrounding plain. The residential texture consists of three historical residential quarters which developed around the commercial area. These quarters are the Arab, Taajeel and Khanqa quarters (Abbas, 2017). The urban structure and land function for these quarters is similar to the building texture of the Citadel. It is characterized by a narrow and irregular street style. The style of the prevailing buildings is the historical way of building with a space of one or two floors made of bricks (Al Yaqoobi, 2016). This texture includes a large number of culturally valuable buildings.

To the north and east of the Citadel there are four historical areas featured and dominated by buildings with space, but they are irregular on a regular grid. A large part of the buffer zone located on the second and third ring road is dominated by big and medium buildings separated and semi-separated by the planning of a city garden. It is featured with medium sized pieces of land where the general building rules of Erbil and other places apply. The active commercial areas which are included in the buffer zone consist of the commercial area of Khanqah East, located on both sides of Shekhallah’s street and the commercial area of Khanqah West, located along the street of Ibrahim Efendi and a group of carpenters which is located east of Aras Street (AL-Haidari, 1984). These areas are characterized by a poor urban environment with strong eco-social networks. They are characterized by the dominance of commercial shopping accompanies with their related functions like stores. The network of streets consists of three rings of concentric streets surrounding the Citadel connected to a series of radial streets. These roads show an integrate combination of utility services, the bigger, commercial shops and small and medium retail shops, professional services, restaurants and hotels (HCECR, 2012).

Figure 6: Boundaries of buffer zones A and B (from: Erbil Citadel Management Plan, 2012, Map 1).
Herb pointed out that minimizing negative influences on the outstanding world value of the site is connected with the control of a range of features for the proposed development within the buffer zone.

Such features are e.g. Heights, mass, function, shape, picture and styles.

Concerning Erbil Citadel the study includes it with especial regulations related to the following aspects (HCECR, 2012):

1. Classification of the urban parts of the buffer zone.
2. The parameters related to the uses of the land, land sorting, buildings shape and building designing.
3. The regulations related to the interventions on the urban parts level and the buildings including the buffer zone.
4. Regulations related with reuse function.

First
The urban parts of the buffer zone are categorized according to their nature:
Depending on the nature of the urban texture, the buffer zone of Erbil Citadel is divided into seven categories.

- The Preservation Zone: These zones are featured with the dominant traditional historical style from one side and the facilities of inner space and the intervention will focus on preserving the style of these streets and facilities.
- The Transition zone: These zones are featured with the urban texture and archaeological facilities of mixed style characteristics. The intervention will focus on the preservation of the area to allow a flexible transition between the preservation texture and the modern texture.
- The Remodelling Zone: It is characterized by a large percentage of modern buildings that contrast with the preservation area. The interventions will focus on harmonizing these buildings with the surrounding texture.
- The Urban Corridors: It includes the circle and main radial roads with connecting roads between them with residential areas surrounding it where is less traffic.
- Areas of reinforcement mixed function: These areas are characterized by the prevalence of the low mass residential function. The intervention will aim at these areas and reinforce the mixed use by intervening new triple functions like the facilities and vocational services.
- Developing new residential zones with inner space: These zones are characterized by the prevalence of residential units with inner space arranged on a vertical designing network. The intervention will aim at maintaining the nature of the area through reinterpretation of the style of the traditional inner space by adjusting it to the standards of modernity and means of comfort.
- Regeneration zone: It includes areas of low quality environment and abandoned pieces of lands. The intervention will aim at redeveloping large parts of the area by adding new activities and may require demolishing and re-dividing of the existing land.

Second
The parameters related to the function of the land are needed for the function of a property or the group of activities in a certain property, whether it was a piece of land or building. The use of the land has been divided according to its hierarchical nature into: Main functions, which are the prevailing functions in a certain area, and complementary functions, which are functions allowed within an area as complementary to the main function. The function of the land has been divided into residential functions, residential tourist functions and commercial functions of local range, commercial functions, medium range services and managerial, general, culture, entertainment and light and heavy industrial functions.
Third
The regulations related to the interventions on the building level:
These are the procedures that are used for buildings and include the procedures related to the protection. They are legal and physical procedures providing the necessary conditions for building a property. There are also the preservation, maintenance and recovery procedures and those for the conservation, rehabilitation and reconstruction, in addition to the procedures for the new building in the historical area.

Fourth/ The regulations related to use and reuse:
The use of the existing buildings within the buffer zone of Erbil Citadel was among the criteria subject to management and control. For this there were special studies and reports including specific detailed regulations for adding the Citadel to the World Heritage List (HCECR, 2012)

- The instructional rules necessitated specification of the buildings of World Cultural Value that show a high level of originality and integration regardless of its physical constructional status. These buildings that are subject to the intervention of the preservation/renovation type to re-establish the former functions or create new functions, if these functions are compatible with the preservation of its traditional location criteria and archaeological features. They must also adapt them to new functional requirements by changing the inner distribution or equipment. But only if these changes require fewer changes in the space connection and for the artistic formation of the frontage.
- Concerning the buildings of mixed level of cultural and local importance, they must still preserve their traditional typology and constructional and decorative factors. These buildings will be available for the same functions they used to have or for new ones if these new functions are compatible with the preservation of their traditional space criteria and its archaeological features. And also if they can be adapted to the requirements of the new function in terms of inner distribution and equipment and so on, without making main changes in the separation of spaces and the formation of frontage. In this way the cultural and local buildings of the contiguous pieces of land can be adjusted for new functions through a unified design and with the development of limited corridors through of the pieces. This can be allowed if it does not require main changes of the traditional typology and the physical consistency.
- The reuse is also applied to the rehabilitation of modern buildings as long as this does not clash with the context in the buffer zone. These buildings could be available for the former use or for a new function in the framework of intervention in the area. This also applies in the case of buildings which incompatible with the context, but in a good physical condition, although a building is not of cultural value and may not exactly fit the existing urban texture and not destroy the general pattern.

5.1 Managing Development in the buffer zone
Control regulations are enforced inside the buffer zone on the developments in the zone in order to achieve the development goals. There might be such a strict control without any chance for change, and in this regard, this may led to the separation of the historical site from the social, cultural and economic current context. This could lead to a conversion of the place into a lifeless museum.
Sometimes and in spite of the existence of limits for the borders of the buffer zone, the conditions within the buffer zone are not identified accurately or unclear and not supported by local legislation of any kind which act against the original goals of re-development. Therefore, it is necessary to have limited practical standards to provide protection (ICOMOS, 2009).
The Operational Guidelines showed that one of the main challenges that face the establishment of a planning system operation is the non-existence of legislation on the national and regional level. This could make the basis of a planning system like the standards that organize the humanitarian activities and main principle and planning tools.
Therefore the Operational Guidelines for the buffer zone of Erbil Citadel include a set of recommendations and tools to facilitate implementation of the proposed Instructional Guidelines. On this basis a set of general instructional rules have been devised for the planning areas and its parts.
For Erbil Citadel the study of guidelines indicate that the planning zone may include sub-zones where the anticipated development is done with two types of control procedures. In this case there is a direct control zone which will be developed by the private or public sector under the control of the general management and through procedures for obtaining approval. And there is an indirect control zone in which there are areas that require stricter control rules for their development (HCECR, 2012).

For example, for the parts of individual pieces of land and with urban corridors and strengthening zones, the requirement is a development through the direct intervention of the public and private sectors. In this case the control on the shape of development and function is done by the General Management. Through control procedures of the building and license approval. The General Management can encourage the private sector by adapting certain patterns of intervention depending on administrative, legal and financial tools.

6 CONCLUSIONS: THE UNIQUENESS OF THE BUFFER ZONE OF ERBIL CITADEL

It is clear that the arguments to present Erbil Citadel the status of outstanding universal value and for the achievement of the conditions of authenticity and integrity, are very strong. Besides this there are the specially approved procedures and regulations to direct planning and designing in Erbil Citadel and the surrounding buffer zone. These provide necessary levels of protection and management to ensure sustainable maintenance for the Citadel. This was reason enough to convince the committee of the World Heritage to add Erbil Citadel to the World Heritage List of UNESCO.

The current research is an attempt to focus on the subject of the buffer zone of Erbil Citadel. The buffer zone is an important level of providing additional protection procedures to the Citadel from external threats which could negatively affect its outstanding universal value as a World Heritage Site.

The research aims at describing the uniqueness of this buffer zone within the framework of the general theory of buffer zones for world heritage sites.

From the study of analyzing the theoretical propositions and practices for the concept of the buffer zone some specific aspects for Erbil emerged. Concerning the number of the buffer zones, Erbil Citadel is connected to one buffer zone only. This may be due to the nature of the location of the Citadel. Because of three factors, such as the Citadel’s natural position of occupying the centre of Erbil City, the circle shape of the Citadel and the direction of the expansion the city witnessed, the buffer zone took the shape of concentric circular rings that gradually grew outwards.

From the aspect of size of the buffer zone, it was established that the buffer zone covered an area twenty-five times the area of the Citadel. This was done in order to ensure that the historical area below the Citadel would be provided with protection procedures. In this way the quality of the newer area of transitional features between the Citadel and the modern city and the chances of maintaining the urban views toward the Citadel from the radial streets were considerably enhanced. Therefore, in accordance with the above mentioned purpose and considering the number of levels of the buffer zone, it has been divided into two sub-zones. The first sub-zone is concerned with the different aspects of the physical adjacent relation between the Citadel and its neighbouring zones. The second sub-zone is concerned with the visual relation between the concentric radial roads and the Citadel.

The planning and design features are subject to the control procedures within the zone and should serve to actively minimalize the negative effects on the outstanding World Value of Erbil Citadel. The regulations for the buffer zone of Erbil Citadel include different parameters with their allowed values. These are special parameters related to the use of the land, the kind of buildings and their shape and design. They also include special controls of the nature of intervention on the building level on the one hand and on the level of urban parts in which the buffer zone was divided on the other hand. For the development management in the buffer zone of Erbil Citadel we have shown the need for a diversity of approaches. There are different levels of control depending on the nature and type of the object of development. There are direct control procedures that are mostly developed either by the private or by the public sector. Or procedures are used for projects for which necessary approvals are required by the rules.
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