

# Impact of Urban Areas on Historical and Archaeological Buildings

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**Abstract:** The present paper is talking about the recent situation of the archeological buildings which exist through modern urban environments. Urban expansion has a large effect on the archeological buildings continuity since such type of development impresses several serious challenges which conservation plans as well as preservation polices must deal with. A number of that main challenges are mega-constructions (tunnels, dams, roads, etc.), pollution, socio-cultural impacts and traffic. Within Um Qias, the archeological buildings face similar challenges consistent with the urban environment where it is presented and that challenges are reviewed in the local community behavior.

**Key words:** Archaeological buildings, urban context, Umm Qais.

## 1. Introduction

Historical sites are the cultural, economical as well as social drivers intended for a sustainable and dynamic environment. They comprise an integral element of nations' identity, history in addition to regional diversity. Medium and small-sized historical sites among their outstandingly-built cultural heritage powerfully form the urban landscapes and also shape the backbone of a polycentric and balanced settlement structure [1].

Through the archaeology development since an academic regulation in the 19th century, the human occupations' temporal span became a general interest topic, raising alertness of the role which the past remains have for organization understanding and today's society values [2]. The 20th century faces an increasing of investigations number into the development of and origin human societies. The 20th century as well would see worldwide, explosive population expansion, whose effects resulted within the emergence of restitution of many urban settlements

attracting great numbers of proletarian and rural settlers [3]. At the begin of the 3rd millennium, the numerous archaeological sites' destruction through urban increase is a situation observed in each country, becoming ordinary because of the current leaning to megacities formation, even within developing countries [4]. In current decades, the archeological sites' destruction has been taken by scales not at all seen before, during looting destructive cultivation, in addition to urban expansion, among development actions causing the loss of every kind of the archeological sites, as hunter-gatherer sites in addition to archaic agriculturalists villages to premature urban settlements. Within this context, the normal superposition of areas and ancient sites destined to the development has produced a major confront for specialists in heritage and archaeology conservation [5].

## 2. Archeological Sites within Urban Context

Archaeology is significant to enrich the variety of the towns. Lately, archaeological researches move to areas, moreover the towns are the subject of research. It does not just give historical chronology, but moreover

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the town physical development. Archaeology is able to be dealt in three kinds of relations among the towns: archaeology sites within the towns, urban archaeological sites and archaeology sites close to the towns. Archaeological sites close to the towns were usually abounded for a number of reasons. Archaeological sites within the towns are the sites wherever the settling preserved. Urban archaeological sites are the sites having continuity, moreover the urban sites situated above the archaeological sites. Archaeological sites are being a place of human past which are the scientific investigations' subjects. The non-renewable substances need preservation zones out of or in the urban areas [6].

The archaeological areas are under danger of development. Quick urbanization, huge construction projects for instance dams and roads, threaten the possessions. This needs the vital preventions to the archaeology conservation. Archaeological assets as cultural heritage components are the topic of city planning. As it is measured city planning, it is well thought-out that city planning is leaning to the future, where archaeology is turning to the past, these couple fields look to disagree. Though, a healthy development and planning can be realized whether it transforms the city from the past in the direction of the future [7].

These couple disciplines usually work individually. On one side, city planning and archaeology develops itself and takes its topics as given efforts. Its introverted circumstance is a fence to be aware of its conservation. Otherwise, planning approach which is far of the awareness of the heritage value can pressure the archaeological resources [8]. Policy relevancy of the planning ought to be considered given that there is a consensus between planning and preservation. In urban situation, there is a association of developers, planners and archaeologists. In Britain, qualified archaeological contractors who are necessary to obvious building sites of every archaeological remains as division of the planning procedure perform rescue archaeology [9].

## *2.1 Problems Facing Archaeological Buildings in Modern Cities*

All over the globe, big numbers of monumental as well as non-monumental archaeological sites situated close to growing cities might be destroyed totally in the following few decades during the landscape transformation by novel urban communities. In a lot of cases, the basis of these collections dishonesty in immigration from rural regions is prompted via poverty, political violence and natural disasters. Developing quickly and with little structural links toward state institutions devoted to heritage protection, these novel populations and other stakeholders through greater political and economic means have turned out to be one of the main risk factors to the material evidences of the past situated on the edge of or in urbanized areas [10].

Evenly, the modern living fabric frequently has indirect, serious effects on the cultural heritage conservation. The next examples are focusing on emphasizing the inter-relationships among cultural heritage in addition to their context [11]:

- Soils and agriculture have major insinuations for the long-term cultural heritage preservation. Cultural heritage study needs to think about the direct property of soils strategies on the biology and chemistry of buried soils in addition to on the buried archaeological deposits physical structure [12].
- Water construct has a long-term and considerable effect on the ground water board, with influences on architectural and archaeological heritage. Aquifer stages are usually monitored through construction industry watchdogs within diverse urban centers. Though, this generally concerns predicting possible damage of modern constructions for instance tunnels and building foundations. And so far the rising groundwater implications are just like serious for superficial deposits—as well as the historic buildings and archaeological sites within them. Even though short-term effect is frequently considered, long-term consequence on the (hidden) archaeological heritage

and built heritage is hardly ever considered. Monitoring of heritage buildings structural behavior, their infrastructure in addition to the effect on the underground heritage is not methodically carried out. In the same way, the possible groundwater inferences of single development on nearby sites are rarely considered. Water abstraction licenses are decided to be consistent with environmental requirement but with no reference to the harmful effect on groundwater change cultural heritage [13].

- In general, modern construction resultant from urban regeneration in addition to further sustainable development proposals are able to be at odds through our stated want to conserve and protect the cultural heritage [11].

- Construction effects on top of ground cultural heritage or standing “monuments” are regularly easier to form than the extremely complex biological, physical and chemical variables in every buried archaeological place. This does not detract from the significance of guarding alongside unsympathetic development within the district of an historic building, however, it does emphasize a more fundamental require [14].

- Lastly, neglect is maybe the mainly insidious threat, whether through planned intent, lack of concern or awareness, or lack of the essential resources. Forget is not just the breakdown to undertake essential work on cultural objects and buildings; it can as well consist of breakdown to develop suitable legislation, the breakdown to watch incompatibilities between dissimilar statutory policies or measures, or the breakdown to undertake essential research into remedial and preventive measures [12].

The damage because of air pollution on resources is actually a serious concern while the buildings’ service life is remarkably condensed. It is factual that the manmade pollutants’ intensity on the building degradation is further than the natural pollutants impact. The most significant is that the effects of corrosion,

degradation, soiling, and erosion caused via  $\text{SO}_2$  are greatly serious. The air pollution effect on materials can be seen in order for material loss, discoloration, structural soiling and failing. Both structural and discoloration failures because of air pollution on buildings perhaps are insignificant and may not engage huge coasts. But the result of corrosion because of acidic deposition expenses a lot. Particularly the consequence of nitrogen dioxide and sulphur dioxide emissions is extremely much important. The calcium sulphate effect has been extremely significant and can be continued to the fairly extended time. As calcium carbonate dissolves inside sulphuric acid, it guides to the calcium sulphate formation. The calcium sulphate as it falls on top of stone, breaks the building blocks surface [15].

Automotive emissions create corrosive gases and atmospheric particles like  $\text{NO}_x$  (nitrogen oxides) and  $\text{SO}_2$  (sulphur dioxide) which, in making contact with environmental humidity create acid precipitation and dissolve calcareous resources, or make black crust formation [16].

## 2.2 Opportunities in Archeological Buildings within Cities

The coming years’ challenge is for reversing this situation, integrating state officials, schools, people and researchers within the heritage management politics. In the developing countries’ context, it is further necessary than forever for involving rural and urban communities within the processes of preservation and appreciation of the past materiality. Generally, the urban peripheries inhabitants have been small ranking but steady characters within the discussion on the archaeological monuments as well as landscape conservation, lastly prevailing during their permanency within or around the olden places. During the long run as well as through their daily actions, they will tip the stability against or in favor of the archaeological sites preservation where they live [5].

### 2.3 The Role of Public Authorities and Planners

Public planners and authorities should make sure [17]:

(1) That the archaeological heritage is able to add to the town identity also to its future evolution.

(2) The urban archaeological heritage value to society as an entire. It is significant equally to the visitors and the residents of the community.

(3) That the archaeological heritage ought to be taken to take in upstanding buildings and structures, and the town historical topography can form a significant part of the town character and can merit protection.

(4) That during urban planning, there ought to be a favorite for the conservation in important archaeological situ remains wherever probable, also development plans ought to be modified for minimizing adverse impact.

(5) That before making decisions impacting of the archaeological heritage, planners ought to obtain sufficient archaeological advice and information, applying nondestructive investigation methods wherever possible.

(6) That the planners' decisions can have an effect on the archaeological heritage forever. Just the once archaeological remnants have been damaged, they can not at all be replaced.

(7) That planners ought to make steps for explaining to the developers and public why the urban archaeological heritage is significant as well as why money ought to be spent on investigating or preserving it. Public education throughout displays, publications, museums and further means are amongst the way that this is able to be achieved.

(8) That planners ought to take account of archaeology within their work. This is including when making plans of development for towns, choosing budgets for the projects of urban development, giving agreement for novel developments carried out via private investors.

(9) That suitable measures ought to be taken for

reconciling the respective requirements of archaeology in addition to development plans.

## 3. Case Study: Amman, Umm Qais

### 3.1 Location and Surroundings of Umm Qais

Umm Qais is located 110 km to the north of Amman. It has a strategic location which was a significant factor during its settlement. Umm Qais is covering the east part of a triangular plateau. Umm Qais is located 378 m over sea level, moreover the surrounding region is forested with oak trees moreover shaded with olive trees. The Yarmouk River is able to be seen to the north; and Ajloun forested hills observe to the south, from the east the Irbid plateau and to the west Jordan valley. Nestled within the hillside, Umm Qais is offering a panoramic, breathtaking view to the Golan Heights and Lake Tiberias. These rich environments made it a great location, giving the inhabitants a calm view to the fertile northern Jordan Valley [18].

### 3.2 The Current Situation of Umm Qais

Umm Qais historic location today represents a multifaceted collage of the landscape elements of many historic ages: Roman, Byzantine as well as Islamic. In alike dynamic organism, there is a long-lasting element of development, growth and modification. While every historic site obtains its primary worth from an exacting historic period, additions or alterations may have obtained an importance of their own. The truth that the components of the landscape in Umm Qais area have changed after a while tends only for increasing its significance like a historical setting. On the other hand, the present human interventions as well as archaeological excavations in addition to restoration conducted in the site within the previous decades have bothered the cultural landscape also caused the damage of a number of buildings as an effect of the incorrect policies [19].

### 3.3 The National Development Plans

The government experienced some development

tactics on a national plane where some places were affected badly; a number of them deteriorated moreover were neglected during the long run particularly due to the holdup of the implementation to the plans which had been devised. Five Year Plan for Economic and Social Development 1981-1985 via the National Planning Council of Jordan (1981) was one of these strategies, whose main purpose was to care for cultural heritage and increase the attentiveness of the cultural value amongst the people, through promoting heritage locations as a holdup to the country's economy during making heritage places tourist destinations. Though, the results and implementation were far of the set aims. This national strategy had other effects on the Umm Qais city in conditions of local community, tourism in addition to the site management as described during the next points [18].

### *3.4 The Local Community*

Umm Qais local community had been generally families of cattle ranchers and farmers mainly settled within the ancient Ottoman village. This is distinctive among its heritage houses constructed on a familiar architectural model rooted in a courtyard among rooms and extra parts that lie around the courtyard. The courtyard was an extremely important architectural component which contributed to the community everyday life and their communal life as they lived within this area. The courtyard house is representing a model to the collective economic, social and political peasant community functions during the 19th century within northern Jordan. The different social systems through the area of the study were focused on kinship that were manifested during the order and form of the different spaces inside the courtyard house. The landscape nature was a determinant issue in the courtyard houses location, which was triggered through the area climate [20].

This entire idea for the courtyard house is able to be reenacted for showing tourists the method of local community life and for learning about the culture and

history of the region. The main villagers activities were located in the nearby agricultural areas, other than the governmental involvement in the area and the feeble plans implemented to the region development included the Ottoman village expropriation and presenting the villagers novel real estate within compensation and promising them which they would be concerned in the new projects management within the region as well as the old city of Gadara [20].

The original city plan was to reinstate the integrity among the archaeological section through the traditional Ottoman village, which would look after the site of vandalism, to establish a solitary incorporated cultural entity, thus ongoing the Ottoman village rehabilitation as a group for shops and artisans for handicrafts since an excellent source of proceeds to the locals on a single hand and like a fraction of their cultural characteristics on the further. The Roman division experienced extreme excavations parallel to some humble reinstatement works which focused on the standard monuments for instance the western theater. The majority of the preservation efforts were reconstruction as well as far from good conservation principles [18].

## **4. Discussion**

The most important problem facing the place is the planning processes and existing management adopted during the last couple decades ever since the first involvement, or superior expressed, the primary disturbance, because of misunderstanding the entirety of the decisions and the context which had been in use earlier to exhaustively exploit the obtainable cultural properties.

Cultural heritage legislation has not been completely activated inside Jordan and thus enforcement to the heritage preservation is absent. For Umm Qais, a most important problem is the understanding and interpretation of the entire site regional context and the effect of that circumstance on protecting the very old city of Umm Qais. This is able to be understood

starting the first involvement of the place as the Ministry of Tourism and Antiquities got a decision in the year 1972 to conquest ownership of the whole Ottoman village situated in the archaeological place, a decision which was implemented throughout the 1980s through trading out its people as well as taking them toward a novel housing project inside Umm Qais modern village.

This was complete to increase the archaeological location and provide the Department of Antiquities the influence to uncover and excavate additional Roman structures which lay below the Ottoman village, also to start preparation for the management and conservation of the place. This village expropriation created an argument between the citizens with the Ministry of Tourism which remains an obstruction for every development plan. Also there is no complete action plan to the archaeological site which controls the balance among the site protection and the cultural assets like a conservation topic and the economic and cultural effect of the place on the awareness of the local people and visitors as an improvement issue.

This is leading to the requirement to investigate the planning and management process for the interpretation, identification, promotion and conservation of the archaeological place of Gadara via which a suitable comprehensive action plan to the protection and management of the place could be expanded. The lasting policies which were adopted within Umm Qais like a conservation tool were paying attention to isolating the existing above-ground remains beginning of the surrounding environment and the local people. The olden city of Gadara was delighted as a creature isolated of the surrounding environment, assumption that the above-ground leftovers are the just remains since the past and which it was essential to isolate them so far as possible.

That achievement stands as a most important unhelpful decision parallel of the Ottoman village expropriation as the cultural remnants are just one part of the ancient environment, which includes the cultural

circumstance of the very old city of Umm Qais, the natural landscapes and the agricultural landscapes, which all jointly form the whole ancient city of Gadara regional context.

Thus, understanding the olden sites is a requirement for making choices about planning and conservation. The requirement of a scientific planning and approach in measuring the requirements of the archaeological sites plus weak management is greatly more destructive to the sites than normal threats.

The appropriate approach which is needed is most excellently described through the approaches to heritage conservation and management formulated via the UNESCO (United Nations Educational, Scientific and Cultural Organization) World Heritage Centre and approved upon internationally via the IUCN (International Union for Conservation of Nature), the ICOMOS (International Council on Monuments and Sites) and the ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property).

## 5. Conclusion

This study intended at exploring the challenges opposite the archaeological sites in urban contexts. The case study that was taken is Umm Qais in Jordan for an archaeological site which exists within an urban context, wherever the impact of local community in addition to urban advance has been considered. The results illustrated that the effect can be both negative and positive where appropriate conservation plan is able to include the problems.

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