ASPECTS OF THE ARCHITECTURAL AND URBAN HERITAGE:
FROM REGISTERS TO CONSERVATION FOR ADAPTIVE AND
MODERN USE AT THE HISTORIC CORES OF SALT AND IRBID,
JORDAN

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Keywords
urban heritage; documentation; integrated conservation approach; tourism planning and conservation; adaptive reuse; collective memory; modern use

Abstract
This paper attempts to present and discuss the outcome of the results of the key different studies and projects carried out at Salt and at Irbid historic cores. It focuses on the executed urban heritage projects undertaken mainly by the Ministry of Tourism and Antiquities (MoTA) of Jordan in the last two decades. It discusses their different aspects through initial assessment of the loss and degradation of the cultural heritage assets of the two cities; the fragmentation and lack of connectivity between the modern and historic cores; issues of sustainability of architectural and urban heritage projects i.e. tourism planning and conservation; and reuse projects at the historic cores in relation to cultural, physical factors and development needs. It also addresses the behaviour and characteristics of the urban regeneration process in those two historic cities, starting from their documentation to examination of the different aspects of the currently adopted urban practices and policies, and their impact on the existing urban heritage, depending on the specific identity of the respective historic cores. Finally, it aims to define the main constraints and challenges for the reuse of the existing heritage fabric including the local community quality of life, while building on sustainable heritage activities accommodating tourism opportunities. This will give, at least, some indications from which we can identify a use or combination of uses, and practical steps needed for successful heritage conservation actions in Jordan, in order to retain the cultural significance of the place.

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INTRODUCTION

In many cities of Jordan and the Arab developing countries, as almost everywhere, the existence of an older city core represents a unique historic link with the past. However, due to their rapid growth and fast transformation, where land uses were rapidly misshaped and declined, their social structures and economics present a genuine threat to their natural and cultural resources.

Historic urban cores of the mid to late nineteenth century, with the traditional houses and open networks as seen in many Jordanian cities such as Irbid, Salt, Madaba and Kerak, can be considered one of the most important evidence of historic lifestyles. In fact, they, as in many historic cores, can be seen as "the physical manifestation of the social and cultural traditions which have developed to give the modern city and society its meaning and character" (Steinberg, 1996, p. 465). Traditions that have evolved through the collective memory and their related traditional forms can and must be widely used and re-used in contemporary architectural and urban design projects, with proper community involvement. Hence, re-functioning or conversion of traditional buildings to contemporary uses is a tool for carrying the traditional environments into the future, both physically and socially.

As in many cities of Jordan, these historic cores have an abandoned stock of built up heritage assets, which lies at their geographical centres, where the majority of these significant heritage buildings are still under the ownership of members of local families, and remain untouched by restoration efforts. Rapid urban growth has resulted in serious harmful effects on those urban heritage fabrics. In addition, the majority of the residents of those old buildings have left and migrated to Amman, the Capital, following the trend of notable Jordanian families all over the country during the 1950s and 1960s. Many of the buildings stand vacant while the families and communities living in the area are often too poor or ignorant to maintain the old stone houses.

Meanwhile the strategy of conservation of historic buildings for adaptive re-use appears to be the most effective approach for a self-financing and sustainable form of conservation, where protecting heritage buildings by having them obtain new or compatible functions, including accommodation, with authentic characteristics assists to save them and benefits the local economy, where conservation of urban heritage contributes to the quality of life of people. Cherchi (2015, p.269) argues that the reuse of abandoned buildings and comparatively open spaces "constitutes a significant opportunity for achieving more liveable and healthier cities through the regeneration of inner city areas". But in fact there are many challenges, obstacles and constraints to achieve this aim, including; private ownership constraint; people’s perception; private and public coordination and partnership concerns; bridging the discourse of conservation versus local benefits; and planning and building legislative concerns including protection tools and financial incentives. According to (Giani et al, 2015, p.45), however, the real challenge is "to be able to imagine uses which offer intellectually stimulating options, in the belief that the production and consumption of cultural goods, of art, could constitute business, could ensure adequate economic returns, changing and evolving the common commercial standards".

The issue for the historic cores is not so much about the criteria of significance, but the much more politically charged process of who decides what is important. Cherchi (2015, p.257) states that "the potentialities of the reutilisation of forgotten urban spaces are remarkable: covered spaces offer new opportunities for regenerating a city, engaging in new relationships, building new squares, and activating new unexpected connections between the different parts of a city".
The success of conservation, however, still depends on political will backed up by available funds. Heritage conservation should also allow for economic viability while maintaining the cultural values. Meanwhile, integrated heritage conservation should be a core effective factor in policies and strategies of revitalising old and historic areas, where efficient conservation policy takes into account public involvement, public and private initiatives, the planning process, cultural and economic needs and the maintenance of public openness during the decision-making process. According to Deslagen (2009) “The image of the cities that has grown historically over the centuries cannot be put on ice during conservation”.

In fact, socio-cultural sustainable regeneration of historic urban environments must make places for local people, rather than preserve certain traditional forms as cultural symbols. Still, traditional forms that evolved from the collective memory can be widely re-used in architectural and urban regeneration, if coupled with community involvement.

The two cities of Salt and Irbid were chosen not for the sake of conducting a comparison of similarities or differences at the level of the urban fabric. Salt was the first city in Jordan to conduct studies, in 1990, for the protection of its architectural and urban heritage, dated to the end of the nineteenth and early twentieth century. Although with limited implementation of related projects, currently the folder for its inscription on the World Heritage List has been submitted to the World Heritage Centre. As for Irbid, the historic core and its extended modern fabric to the North of Jordan serves more than 300 surrounding villages where Irbid also played a major role in the modern history of Jordan. Yet the protection initiative, the earliest in 2005, has been much delayed hence the protection of the core surrounding the mount of Irbid may present the last opportunity to preserve the identity of the city.

The methodological approach for this paper adopts a series of steps geared towards assessing protection actions on the ground as follows:

1. Review and assessment of the main findings for the proposed registers for urban heritage at the historic cores of the two cities;
2. General assessment of the negative effects of the current urbanisation practices and policies on Salt and Irbid cultural heritage significance;
3. Comparison between the main urban issues that affect both cores of Salt and Irbid, in order to understand the similarities and differences in terms of the obstacles and concerns facing the two cities;
4. Examination of the projects of conservation conducted to date and mainly those by the Ministry of Tourism and Antiquities at both cities.

The examination shall address the following questions, in order to have an informed basis:

- Can central government driven projects or local municipalities’ projects play the main catalyst in driving the protection of the Cultural Heritage Project at urban city cores?
- Are participatory approaches or individual actions the main driver for the current protection endeavours?
- Were the problems facing the protection of the historic cores addressed within a holistic or integrated manner?
5. Finally the paper attempts to present suggestions and recommendations towards sustainable conservation actions for the two historic cores, enhancing the everyday quality of life while accommodating development based on:

- Reinstating the cultural identity of the core as a trigger for change;
- Enhancing a safe pedestrian network to enhance the quality of life at the core and as a catalyst for change using pedestrian linkages;
- Improve social interaction by creating a series of urban open spaces and interventions to promote common activities that could serve also tourists.

SALT CITY HISTORIC CORE AND ITS CULTURAL HERITAGE: ASSESSMENT OF THE URBAN HERITAGE FABRIC

Salt is located 30 km to the west of the capital Amman and is the 4th largest city in Jordan, with a population of around 140,000. The old city lies on three hills - Jadaa, Qala’ and Salalem - with the central city Plaza (Saha) at the meeting points of the valleys (Figure 1, a). Most of the urban heritage residents and mansions date back to the period between 1890 and the late 1920’s. These were mainly built in soft yellow marl-lime stone by local and migrating master builders using local technologies, and later introducing newly imported materials of metal I-sections and red tiles for roofing.

The main heritage buildings in Salt include the urban merchants’ and residents’ houses from the turn of the twentieth century, commercial linear markets, and religious buildings, in addition to the oldest modern high school of Jordan of 1925. More than 600 heritage houses such as the Abu-Jaber mansion from 1890, which has been turned into the Salt historic museum (Figure 1, b), and the Al-Mo’asher and Al-Saket complexes are spread in the core, with a network of stairs that run all the way down from the hills to overcome the rigid topography of the city.

Salt and the Development of the Architectural Register of the City

The interest in protecting the architectural heritage of Salt goes back to the mid-1980s, and was triggered by the initiatives of Salt Development Corporation (SDC), when a masterplan
was developed in 1984 by Dar al Hadassah engineering firm who identified the importance of the traditional buildings of the city (Fakhoury, 1987). Table 1 presents a brief history of the main conservation and planning studies undertaken in the city within the last three decades.

Table 1. Main urban and conservation studies in Salt city (Source: Authors).

<table>
<thead>
<tr>
<th>Year</th>
<th>Study Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>JICA: Basic Survey of the cultural Resources in Salt</td>
</tr>
<tr>
<td>2014</td>
<td>Ministry of Municipalities and Rural Affairs: Salt City Core Special Regulations</td>
</tr>
<tr>
<td>2010</td>
<td>Euronet and Dar Al-Omran Consulting: Development of city core special regulations for Jerash, Karak, Madaba and Salt</td>
</tr>
</tbody>
</table>

Major Conservation and Planning Studies at Salt Historic Core

The four major studies undertaken in Salt city core are summarised as follows:

1-Royal Scientific Study (RSS): Salt- A Plan for Action

The study, conducted by the Royal Scientific Study, started in 1989 and ended in 1990. It was commissioned by Salt Development Corporation (SDC) and financed by USAID. It explicitly set the groundwork for developing a full register of the traditional buildings of the city at that time. The study indicated the buildings prior to 1950 as being of heritage value and 657 buildings were listed. The study was conducted as a joint venture with an international company. Three volumes were produced in English with a summary in Arabic. One of the deterrents to its implementation was the absence of a national umbrella and appropriate legislation to protect architectural heritage after AD1700, in reference to the previous Antiquities Law of 1988, in which the age specified as Antiquity is pre-1750. The building of the capacity of the municipality through the technical arm of Salt Development Corporation was recommended. At that time, no GIS data was available for the city. The Action Plan was supported by three main plans: Implementation, Management and Financial. The implementation plan recommended the development of a revised masterplan which included a protection zone for the urban fabric, a green buffer zone in addition to the conservation area (Figure 2).

2. Basic Survey of the cultural Resources in Salt by JICA (2010)

This survey was conducted by Japan International Corporation Agency (JICA) volunteers. A catalogue publication of 1019 resources was set for the surveyed resources, using GIS for registering the different built up heritage components of the city with three levels of integrity 1, 2 and 3, (Figure 3).

3. Salt Special Regulation (SSR) Project/ Third World Bank Tourism Development Project (WB3)
The Salt Special Regulation (SSR) project was developed by the joint venture of Dar al-Omran and Euronet Consulting, and was financed by WB3. Evaluation forms were developed to establish the cultural significance of 120 traditional buildings with 20 selected buildings being fully surveyed and documented. Special Conservation Areas and Special Development Corridors were then proposed as part of a proposed masterplan; to include the heritage core, protected view-sheds, in addition to heritage corridors (Figure 4).

Figure 2. GIS for RSS study and the different protection Zones. (Source: Fakhoury and Haddad, 2014, fig17, 15).

Figure 3. JICA integrity levels for the documented heritage buildings where blue indicates integrity1, Green for level 2 and yellow for level 3 (Source: Fakhoury and Haddad, 2014, fig 18, p16).

Figure 4. Salt City Core Special Regulations as proposed by Dar al-Omran consulting, where the olive green and dark purple buildings are proposed to be protected within a restricted ‘area B’ defined in a yellow dashed line (Source: after Fakhoury and Haddad, 2014, fig. 40, p. 56).
The results of this project were adopted, after an assessment by Cultural Technologies (CulTech) in 2014 and the Salt City Core Special Regulations (CCSR) were endorsed by Salt Greater Municipality, and eventually by the Ministry of Municipalities and Rural Affairs and the Higher City Planning Council of Jordan by 2014.

By July 2015 the final SSR for the historic core was published and the SSR was requested to be affiliated with the Prime Ministry. By January 2016 the nomination file for inscription on the UNESCO World Heritage List for “Salt Eclectic Architecture (1865-1925); Origins and Evolution of an architectural language in the Levant” was prepared and submitted (Figure 5). The dossier included more than 22 buildings, of which seven are completely or partially abandoned or vacant. In addition, a buffer zone for the nominated properties was suggested.

It is important to note that there is currently no official register of the traditional buildings of Salt, which have been estimated to number over 600 buildings by RSS study, while the 1019 resources documented by JICA included structures and wall remains. CulTech in 2014 revealed a GIS of the RSS register for the first time which provides the opportunity to compare the documentation results of all relevant studies. Unfortunately, the municipality and Salt City Development Projects Unit did not build further on this GIS comparison achievement.

It is clear that with the nominated dossier, detailed regulations for buffer zones will need to be implemented. This is a challenge for the local municipality and an opportunity to set the pace for integrated conservation actions where the protection of the heritage resources could lead to positive development and institutionalise a building register. In addition, it will set a plan for the reuse of many of the abandoned nominated edifices.

**Rehabilitation of Salt Historic Landmarks: Buildings and Spaces**

The enhancement of the facades of Al-Hammam Street was funded by USAID and was an early attempt in the early 1990s, followed by the conversion of the Toukan house into the
archaeological museum of Salt by Tahan and Bushnaq Firm and implemented by Amer Al-Khatib.

The traditional small mosque of Al-Hammam Street was another project for renewal, supported by SDC, where an extension for a women prayer hall was added to the upper floor and a new façade was built in front of the original façade. It is worth mentioning that the original facade still exists behind the later modern addition.

JICA, as part of the Tourism Sector Development Project, also conducted a project for the reuse of “Madafat Abu Jaber” into the Historic Old Salt Museum, in addition to the establishment of the panoramic outlets and refurbishment of Sahat Al-Ein (section closer to the congressional mosque), which followed in the year 2000 (Table 2). The JICA project in Salt identified 4 panoramic outlooks (1200m²), paths and stairs (7km), in addition to open spaces (4 public Sahas/plazas, including Al-Ein Plaza) of 3850 m² to enhance the built-up environment. The total cost for implementation was JD 4,500,000 not including studies and management. The following table assesses the contribution of the project undertaken by JICA to Heritage tourism infrastructure and community benefits.

<table>
<thead>
<tr>
<th>Project</th>
<th>Contribution to Heritage Tourism</th>
<th>Major stakeholder</th>
<th>Year /Studies undertaken</th>
<th>Current users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt</td>
<td>- Refurbishment of Panoramic look-outs/open spaces as physical network developed for tourism.</td>
<td>MoTA</td>
<td>Studies1999-2001</td>
<td>Assets used by the community and tourists</td>
</tr>
<tr>
<td></td>
<td>- The Historic Old Salt Museum (HOSM), also currently the Core Museum for the Salt Ec-</td>
<td>MoTA</td>
<td>Studies1999-2001</td>
<td>Assets are mainly used by visitors and tourists and can be used by the</td>
</tr>
<tr>
<td></td>
<td>omuseum (SEM)</td>
<td></td>
<td>Implementation and the opening of Abu Jaber Historic museum were only by</td>
<td>community.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2010</td>
<td></td>
</tr>
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</table>

Assessment of the new design for Al Ein plaza and the facelift for the surrounding heritage complex and Congressional Mosque (WB3) project, 2007-2010: strengths and weaknesses

It is clear that the earlier projects attempted to address and conserve the grand or traditional landmark buildings of Salt by turning them into museums while the earlier attempts by the USAID Funded project of Al-Hammam Street tackled the enhancement of the commercial facades of the vibrant artery of Al-Hammam Street, with a rather coy interactive approach.

On the other hand, the later WB3 project built on a partnership between the Ministry of Tourism and Antiquities (MoTA) and the local municipalities to develop the historic centres of five Jordanian cities including Salt, and demark them on the Jordanian Tourist Map.

The project for the core of Salt consisted of the removal of three modern administrative buildings that were erected in the 1960s, the documentation and clean-up of 3 traditional
building complexes' facades that defined the upper edge close to Sahat al-Ein, in addition to the facelift of the modern Congressional Mosque of Salt to extend and enhance it (Figure 6).

The JICA project, led by MoTA, targeted the visitors trail and the main city square while the World Bank Project WB3 (2007-2010), administered by a local unit, expanded the investment in redefining the main open space of the city core and surrounding heritage buildings' facades.

The WB3 projects aimed to ‘beautify’ and ‘sanitise’ the downtown core of Salt by the demolition of the modern administrative buildings of the late 1960s and 1970s (directorate of education, the governorate and police station, and the old post office) that replaced the Ottoman Saraya of the nineteenth century in the late 1960s; its great mosque and As-Sukkar commercial bureau (Wakaleh) were also demolished to widen the streets. MoTA set the terms of reference and proposed strengthening a link between the Saha and the three Heritage houses. However, the project had a limited understanding of the collective memory of the city centre.

The Documentation for the surrounding buildings was detailed and included written, graphic and photographic documentation; also a detailed description of the existing conditions for the detected deterioration was also noted. New techniques for cleaning the soft nature of the stone were applied in cleaning. However, the restriction of intervention on the complexes’ external facades fell short from bringing further adaptive use for the complexes which still stand vacant.
The open public space was expanded to acquire a potential role as the ‘reinstated hub for the Salt centre urban life’; however the adopted approach of ‘sanitising’ the downtown core of Salt mainly remained as a beautification scheme. The urban space was designed based on a purely aesthetic priority divorced from the socio–economic needs of its inhabitants and had a limited understanding of the collective memory of the city core and its past. The oval design/baroque approach of the proposed Saha also did not take into consideration the traditional urban texture of Salt City and it appears more alien than complimentary to the centre of the city (Figure 7a). Furthermore, the archaeological findings under the present site were not taken into consideration as a trace to enhance the historic memory of the city core (Figure 7b).

Some of the downtown workers (from the local community) held a strike on 2010 to stop the acquisition and demolition of the commercial buildings where their shops were located. In fact, the only strength was in the reduction of traffic. But the weaknesses are many; the link between the Saha and the heritage Buildings could have been done without the need for completely demolishing all of the governmental buildings. As to the Mosque Enhancement scheme, the new facelift for the Mosque with added floors exaggerated the scale of the building. Its scale is not in harmony with the traditional buildings and fabric of Salt city (Figure 7c).

**IRBID CITY HISTORIC CORE AND ITS CULTURAL HERITAGE: ASSESSMENT OF THE URBAN HERITAGE FABRIC**

Irbid is located in the northern part of Jordan and is the capital of the Irbid Governorate which has an area of 1,572 km², with a total of about 1.137 million inhabitants. In the past few decades, Irbid city has witnessed excessive urban growth rates associated with the large increase in its population (Figure 8). Due to its unique geographic location, Irbid has become
an important commercial and administrative centre in the North of Jordan; the city centre/core attracts all kinds of commercial activities serving the population of the larger city and nearby towns, and more than 300 villages around it.

The core provides also an urban space in which a multiplicity of social, economic and cultural practices operated at different levels. The historic core of Irbid including the mount (Tal), shown in Figure 9, houses institutional buildings such as the Saraya (1886) (formerly an Ottoman prison and seat of governorate), which was turned into an Archaeological Museum (Figure 9b), and other public buildings established in the early to middle twentieth century including religious buildings, educational facilities, and unused open spaces (Figure 9 a, b).

Irbid city urban fabric was formed at the end of the nineteenth century and the beginning of the twentieth century around one nucleus- the Tal. Interestingly, besides the existing archaeological site at the Tal, Irbid core is preserving 1920’s and 1930’s building styles of the region, especially those of the wealthy migrants from Damascus. Figure 10 illustrates the present distribution of heritage buildings in the study area with a total number of 85 buildings. The city has constantly developed after 1930. Presently, the city centre attracts new poor migrating families and working foreign labour force. The middle-class families moved to the southern part of the city. Thus, the old neighbourhoods became a transitional node for its new inhabitants and the influx of Palestinian and later 300,000 Syrian refugees over the last five years. Several traditional buildings were also deserted or torn down.

The main heritage study was conducted as part of the project launched by the Ministry of Tourism and Antiquities of Jordan (2005-2006) and in conjunction with the Municipality of Greater Irbid. It proposes regenerating Irbid city centre and revitalising selected heritage
buildings within the urban core of the city that is heavily urbanised. The proposed project aimed to provide special attention to significant locations within the study area. The project team for the study was formulated by Consolidated Consultants (CC), and the authors of this paper as the historians and urban heritage experts. It also aimed at developing key heritage buildings and related open spaces (Consolidated Consultants Reports 2005, 2006, Abujaber, 2009).

The area under study consisted of the Tal of Irbid and the adjacent urban area, of 500 dunums, forming the historic core (Figure 10). The built-up area occupies 44% of the total surface area with major arterial roads and streets forming its edges. Al-Hashimi Street is the only arterial road penetrating the mid-section of the study area. The field study included data collection, on-site evaluation of physical and structural components, and a detailed photo survey of the relevant components in the urban environment. A social profile for the area under study was developed together with surveys to identify the needs of the local community.

The main culturally significant elements of the urban fabric of Irbid historic core are identified as the Tal as the city’s main landmark dominating the skyline of the city, in addition to two market areas (suqs); Suq Irbid al Qadim (old) and Suq al-Khamis (Thursday), and the residential quarters (Figure 9c) with four significant religious buildings and a meandering pedestrian network.

The Old neighbourhoods (al-Harat) were formed from three main neighbourhoods (Figure 10b). The neighbourhood reflected the social fabric of the city. Al-Nabulsi house, a well preserved example of the Damascene courtyard house typology (turned into a cultural centre) (Figure 11a, b), Al-Sharairi house, a traditional courtyard house category (turned into a political museum) (Figure 11 c, d) and many large town houses and buildings, such as the prominent example of Joumah family house, a mixed-use (commercial-residential) townhouse (Figure 11e) were constructed to accommodate the main families of Irbid, leading the economic power of the city.
In the south area of the Tal, three buildings of heritage significance were expropriated by Irbid Municipality for the purposes of restoration and reuse, and financed by MoTA. Two of those buildings were former residences. The Nabulsi house (Figure 11a, b) represents the dominant residential building typology during the 1920s at the historic core. The house was turned into a museum of residential heritage on the lower level. The museum features the traditional urban lifestyle of the Irbidi society. The upper level of Nabulsi house houses a community development project which was planned to offer the local women the opportunity to produce traditional embroidery for sale to tourists.

Meanwhile, Al-Sharairi house (Figure 11 b, c) dates back to the 1900 – 1920s and was home to a famous local military commander, and later a famous politician. The house was turned into a museum of local political history. The third building, the Jum’a building of three floors,
dates back to the 1930s and is located on Al-Hashimi Street. It is a mixed-use (commercial/residential) townhouse structure, where the Juma’a family lived and the street level shops were used for trading in spices and aromatic herbs. In addition, the upper two residential levels were used as an inn for a period of time (Figure 11d), and were proposed as an inn.

Following the above study, in 2010 a masterplan was developed for Greater Irbid by the Amman Institute and Planning Alliance but has not yet been approved. Protecting heritage areas including natural and cultural heritage, for current and future generations, was one of the planning and development principles identified as a result of the public forums and informed by the vision and community aspirations (Irbid Growth Strategy, 2009).

GENERAL ASSESSMENT OF THE NEGATIVE EFFECTS OF CURRENT URBANISATION PRACTICES AND POLICIES ON SALT AND IRBID CULTURAL HERITAGE SIGNIFICANCE

The following presents a brief discussion of the current conditions of the urban environment, based on a rapid assessment of the different studies undertaken in the two cities and scholarly observations by the authors of this paper, who were involved in different activities or studies concerning both cities during the last two decades. Like other cities in Jordan, Salt and Irbid historic cores have a stock of built-up heritage assets that lie at its physical centre (Figure 10a, 3), where the majority of these key heritage buildings are still under the ownership of local families and remain untouched by restoration efforts. However, the majority of the owners of these old buildings do not continue to live in them. The remaining families and communities living in the area are often too poor or ignorant to maintain these heritage stone houses.

The adopted urban practices and policies, including their impact on the existing urban heritage, were reviewed to understand the urban process in those two cities. Indeed, the land use changes at the core enable us to examine the rapidly developing centre and its connection with the conservation process.

In Irbid, 41% of buildings in the core site has commercial uses, 17% are residential, and 19% are of mixed use (residential and commercial) (Consolidated Consultants Reports 2005, 2006, Abu Jaber, 2009). The concentration of the different types of uses divides the site into three districts): commercial, residential, and cultural.

In Salt, the majority of the approved land use is residential and a commercial linear land use indicated in light blue occupies no more than 15% of the core, while the mixed commercial use and public use occupies very small percentages (Figure12 a, b).

Another concern was to evaluate if the recovery of abandoned buildings could represent good practice for the role that public landmarks can play in social revitalisation and urban regeneration. In Irbid, from the eighty-five heritage buildings and houses that were evaluated according to their exterior and interior architectural characteristics (shown in Figure 10), only a handful of key heritage buildings were reused and by mainly formal initiatives, including the museum at the Saraya.

In Salt, the other landmark investment was in the adaptive reuse of two key heritage buildings into two museums during the last three decades, and the preservation of religious buildings of the English hospital of the CMS (Christian Missionary Society) and Catholic Church in addition to the small mosque. Very few private family initiatives, as part of the
adaptive reuse of landmark residential buildings for Madafas (family house used for guests), have been undertaken by the current or previous owners of such key buildings as in the reuse of Mouasher house.

Figure 12. Landuse plan a) for Salt – b) for Irbid (Source: Authors).

The condition assessment of the historic core monuments can be determined mostly along with their present function and use. It was observed that heritage building conditions range from well-maintained to derelict. In Irbid, 75% are considered in moderate condition and above while 25% fall within the derelict or abandoned classification.

In Salt, it is hard to specify the general condition of more than 650 buildings but in the most recent study of CulTech-2014 out of the 49 buildings surveyed 18.5% were in good condition, 66.7% in medium condition while 14.8 % were in bad or derelict condition (Figure 13). In Salt, the good condition of buildings in the CulTech study area is related also to the resident being the owner.

However, the buildings which have no further utilisation tended to decay rapidly, while the buildings which are still in use have a better chance of being maintained. Clearly, the buildings which have a new function through “adaptive re-use” are also better maintained.

From the conducted survey and reviewing the current organisational plans for the two cores, several main constraints and challenges for the existing heritage fabric, for the local community quality of life and or a tourism destination, were defined as follows:

1- The severe and rapid urban change of the two historic cores (1950-2000) is very noticeable in Irbid and As-Salt.

By 2000, the core in Irbid was greatly occupied by modern out of scale structures dispersed or replacing the heritage buildings (Figure 14). The improper and rapid urban development process encouraged the construction of many new large commercial and residential buildings at the historic Irbid core which caused traffic problems. Hence, the Tal of Irbid lost its place identity that once promoted the visual image of the city. The negative results of the inner city slum pockets also spread throughout the core of Irbid due to the permission for multi-storey buildings along the periphery of street blocks. The newer commercial sprawl extended along the main commercial arteries creating urban pockets of threatened derelict urban vernacular buildings and remains behind the new development.
Figure 13. Condition assessment of 49 buildings within the CulTech study area (Source: Fakhoury and Haddad, 2014, fig.1, p.20).

Figure 14. Two aerial photos illustrate the rapid urban growth in a comparison between 1953 and 2000 for the shaded area of Irbid historic core. (Source: After Haddad and Fakhoury, 2016, fig. 2).

The newer higher buildings caused fragmentation to adjacent heritage structures due to scale variations; partial or complete blocking of street view and public open spaces; obstructed physical and visual connectivity; and disrupted walkability and pedestrian accessibility. Thus it has contributed to the isolation of such heritage pockets behind modern multi-storey façades. Some of those new multi-storey buildings are even constructed in place of heritage buildings after being removed. An example from Irbid historic core is the old market area, where the remaining abandoned buildings of this market are located within an urban pocket between the Al-Hashimi Street and the Farmers’ market (Figure 15). Usually,
these places are inaccessible, separated from the city core by high walls. Poverty in slum pockets reflected in the lack of maintenance of traditional buildings and public services also require urgent concern.

Figure 15. Examples of the spread of derelict and abandoned heritage buildings in inner-block locations of Irbid core. (After Haddad and Fakhoury, 2016, fig. 11 b, d).

However, in the heart of Salt, modern white blocks mushroomed along the main Ein Plaza and replaced the Ottoman Saraya and old congressional mosque with new governmental buildings and a new mosque during the late 1960s and early 1970s to ease car traffic (Figure 16).

Figure 16. a. Modern buildings dominated the city centre of Salt replacing the landmarks of the Ein Plaza of the beginning of the twentieth century up to a few years ago. b, the Ein Plaza of the beginning of the twentieth century. c. Ein Plaza of 1984, mostly demolished but for the heritage building of Abu Jaber (Source: Authors).
This replacement extended through the commercial arteries along the valleys. Still, the new multi-storey commercial strips could not suffocate the traditional fabric because the grand mansions of the early twentieth century rose up to three and four floors. In addition, the mountainous topography could still showcase the abandoned traditional ensembles of the different mountain slopes towering above the new commercial buildings of the valley. In spite of this, the new commercial strips at the foot of the hills greatly affected the main Ein Plaza and commercial arteries of the flat areas at Al-Maydan and Deir Street. These created a heavily urbanised mix of mainly commercial with minor residential uses, in addition to abandoned heritage locations, which are currently challenging to sustain (Figure 17).

Many heritage residential buildings are neglected or abandoned in both cores, as evident in the different field surveys. In addition, façades on streets and pathways in the commercial districts of Irbid are heavily covered by shop signs and advertisements of different size and colour varieties that make perceiving the form and aesthetics of those buildings difficult (Figure 19). New restrictions on façade shop signs and advertisements alleviated some of those problems in certain commercial arteries in Salt, but the problem is still evident in other parts of the city core.
One of most intractable problems in the historic cores concerns the connection between the traditional and modern physical forms and treatments. Modern developments disregarded the heritage value and contributed to fragment heritage assets in the core. In Irbid structures of enormous height and mass introduced in recent decades are grossly out of scale amidst one and two-storey historic buildings with narrow streets. The introduction of multi-storey buildings in most cases destroys the human scale. Another critical problem is the large majority of these traditional buildings are poorly maintained and invariably with illegal, top-floor extensions, as reflected in Salt and Irbid city (Figure 17, 18).

2- Lack of urban heritage protection plans and related urban policies; in the two cities approved Master (land use) plans did not consider the heritage cores; this resulted in the destruction of the identity and authenticity of main parts of the historic area.

During recent decades, many heritage buildings were removed in Irbid (Figure 15) meanwhile, many of the isolated heritage buildings are still threatened while they became fully encircled by modern urban structures. This also decreases their significance as they become very hard to view and reach, thus they become abandoned. Figure 15 illustrates examples of the isolation concern, where the heritage building becomes buried within the urban area of mixed-use at Irbid.

On the other hand, the implemented urban laws and policies do not take into consideration the traditional uses and the particularity of these heritage buildings. Lack of effective protection measures can still encourage people to remove some of the existing heritage buildings or parts of them and to replace them with modern multi-storey buildings. This issue represents a real challenge for the traditional buildings at Irbid city historic core.

While the protection of heritage buildings in Salt is hoped to be achieved by the recent declaration of the core of Salt as an area with Special Regulations, that is still to be implemented.

3- Lack of public awareness activities to rebuild the sense of belonging and lead the conservation and reuse of Irbid & Salt traditional buildings.

In terms of public awareness, no clear action was undertaken until the present CC Irbid project and study of 2005 was tendered, when several consultations were undertaken. No awareness activity or city consultation was conducted earlier to encourage the public to restore and reuse their existing urban heritage with compatible activities such as for a (Madafa) except for a singular case of Madafet Arrar in Irbid, where the family of a national
poet undertook this project. The lack of understanding and appreciation of the historic value of the collective core’s memory is a critical issue. It explains why the owners overlook the need of carrying out proper and regular maintenance works for their properties (Figure 15). Though, the question remains, ‘How can these traditional buildings affect the Irbidi and Salt contemporary society and people who inhabit those dwellings?

As for Salt, the number of heritage and planning studies is large with strong support and back up from Salt Development Corporation (SDC) and leaders of the society, which in reality only means more of an elitist awareness, divorced from the popular masses. This limited public awareness about the cultural significance of this heritage and greater demand on land for commercial investment, supported by increased land prices, had resulted in either destroying many of the existing heritage buildings in Salt or isolating them from the existing urban tissue and identifying them as ruins (kharabeh) (Figure 16,17).

Recently MoTA undertook several initiatives with JICA in Salt to raise local community awareness and training as part of the ‘Salt Eco-Museum’ for the Abu-Jaber residence and Salt Trails: “The Japanese grant is currently used to train tour guides and residents on how to receive tourists and promote their city’s sites and local products. With this programme, many women living here can host groups during their tour around the city and make them lunch,” (Goussous, 2016). The momentum of this training is still not evident in the city since the number of tourists to Salt does not exceed 3300 visitors a year, based on the number of tourists that visited the Historic Old Salt Museum (MoTA, 2012).

Conclusively, this participation could not empower the inhabitants of the two cities to stop the deterioration of some of the main landmarks of both cities where the authenticity of parts of the historic areas was and can still be clearly affected.

4- The insufficient services and systems managing the pedestrian movement in the historic core cause a risky traffic-pedestrian interaction.

In Irbid, this is noticeable at the Al-Hashimi Street, the major arterial road, (Figure 20b) connecting the different commercial activities with its surroundings.

The centre of Salt also suffers from congestion and dense traffic during the day. Congestion nodes spread along al Maydan Street connecting with Al-Deir and Hammam Street, where an additional lack of parking and triple car parking practices leads to serious traffic congestion (Fakhoury and Haddad, p. 36) (Figure 20a).

In addition, lack of traffic management is another issue clearly unaddressed, by the traffic police and local municipalities at both city centres. Several traffic rapid assessments, researches and public meetings have indicated that double and triple parking, for example at al-Maydan Street in Salt, is not ticketed by the local police. A questionnaire in Irbid reflected that the lack of public services such as car parking spaces impacts the attractiveness of the downtown during the day (Tarrad, 2014, p.4279).
Figure 20. a. Congestion nodes and high-density traffic at main arteries of the historic core of Salt b. Congestion and unsafe interactions with traffic in Irbid (Source: Authors).

Table 3. Urban phenomena and constraints at the core of Salt and Irbid cities (Source: Authors).

<table>
<thead>
<tr>
<th>Urban phenomenon at the core</th>
<th>Salt</th>
<th>Irbid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership and tenants impact</td>
<td>Multiple building owners who mainly migrated to Amman. Several waves of resettlement took place and lately the foreign labour force working in Amman is attracted to live in part of the traditional old neighbourhoods. Minimal investment by private sector in the heritage assets.</td>
<td>Multiple building owners where some migrated to Amman, or outside the old quarters, where several waves of resettlement took place and lately Syrian migrants are attracted to live in the old neighbourhoods. No investment by private sector in the heritage assets.</td>
</tr>
<tr>
<td>Urban sprawl due population increase</td>
<td>The population increase was not severe after the establishment of Jordan. A good percentage of the residential buildings at the core are vacant while the traditional commercial streets continue to be used at the core.</td>
<td>Continuous population growth, currently the third largest city in population in Jordan. This had a great impact on the heritage fabric although some heritage buildings still stand vacant while the commercial uses thrive.</td>
</tr>
<tr>
<td>Traditional fabric and new urban policies; - Mixed land use strip development -Vacant buildings</td>
<td>-The traditional urban fabric of the city was clearly more developed, before the establishment of modern Jordan. -More than 650 heritage resources are documented. -The topography showcases the remaining traditional ensembles on the different mountain slopes, hence the new commercial strips and buildings did not suffocate the traditional fabric visually completely but greatly affected the main Saha and commercial arteries of the valleys. -Vacant key buildings are a main phenomenon of the traditional core.</td>
<td>-The villages’ ensemble around Irbid later formed together with Irbid’s urban fabric of suqs &amp; main neighbourhoods the traditional fabric of the present city. -More than 85 heritage resource is documented. -Presently the traditional structures are mainly surrounded by strips of mixed use or modern commercial buildings, creating derelict unattended pockets of traditional fabric in the heart of the city. -Vacant traditional buildings are a main phenomenon of the traditional core.</td>
</tr>
<tr>
<td>Lack of political will at the municipal or central government</td>
<td>-Several studies for planning, protection and development were sponsored by SDC and MoTA during the last 25 years and lately by the Greater Municipality of Salt -financed mainly by foreign donors or loans-, where currently the Mayor and Prime Minister adopted the nomination of Salt on the World Heritage List. -The number of studies was enormous with implementation mainly to the facades upgrade and open space development for tourists’ trails and mainly by MoTA. -Reuse projects of two museums were undertaken in key buildings by MoTA &amp; SDC.</td>
<td>-MoTA sponsored a study for the development of the traditional core in the city in cooperation with the municipality. -Mainly the project for the reuse of 2 heritage buildings and plazas were implemented by MoTA.</td>
</tr>
</tbody>
</table>
Limited tourism opportunities

Salt since the late nineties sought to incorporate tourism as an economic pillar for its development. Still tourism opportunities are not a main economic opportunity.
- Investment in Tourism infrastructure; tourists’ trails and reuse of 2 key buildings into two museums, mainly by MoTA.
- Minimal investment by a private sector investment or community-based initiative.

The surrounding archaeological attractions encouraged Irbid to incorporate tourism opportunities to its economic development in the last decade.
- Investment in Tourism infrastructure; the reuse of two key buildings as museums and plazas implemented by MoTA.
- No investment by the private sector or community-based initiative.

Congestion & traffic

Very high congestion through the day and not enough parking at the city core.

Very high congestion through the day and not enough parking at the city core.

Pedestrian network within the core

Pedestrian mobility is affected through the core affecting the quality of life.

Pedestrian mobility is affected through the core.

The key question is whether, through preservation and adaptive reuse of the two historic cores, we can create a civic landmark, capable of strengthening the dynamic relationships in the lives of the two cities’ citizens. In fact, living in the two cores is presently not favourably and what is needed is a direct intervention to reinstate the two cores for ‘people instead’.

A more progressive approach to developing a sustainable heritage conservation action plan for the two historic cores needs to rethink the role and intentions of conservation and restoration, and the importance of housing in the conservation action plan process. Meanwhile, incorporating public participation into integrated conservation and planning policy should be beneficial to all parties (Yung and Chan, 2011).

In general, there is also an incredible shortage of funds for the upkeep and maintenance of the heritage buildings, according to the municipality. Hence, much of the conservation work in the historic cores is anticipated to be undertaken by the private sector in partnership with the public sector.

The urban heritage strategy needs to deal with the gentrification process and the population’s attitude to its cultural heritage assets and address the demands of the local community about the economic value of the historic assets in addition to discussing openly benefits for the local community. Several initiatives in engaging the public in Salt have been undertaken but the challenge of protecting up to 600 resources - eight times the number of resources at Irbid - and a large number of studies, necessitate institutionalising the effort and planning campaigns of awareness, as part of any ongoing conservation initiative.

While it is clear that several private initiatives invested in the reuse of heritage buildings for tourism activities in other cities of Jordan, such as in Madaba and Fuheis traditional cores, this is not evident in Salt or Irbid. In the 1990s, a visitor and craft centre opened at Salt Zaman and closed by the mid-1990s and only recently a private kitchen opened in parts of a traditional building in Salt to accommodate visitors. Until today no proper full-time restaurant or entertainment place exist in the city core, but for al-Amad traditional authentic barbecue shop, representing the legacy of the last century. As for Irbid, the universities’ city, no private investment in tourism has been associated with the traditional buildings and the related open spaces. However, there is a core existing infrastructure of museums in both cities. This can support the potential visitor’s attraction.

Hence, enhancing the pedestrian network at Irbid core can benefit not only the local community quality of everyday life but also its potential visitors. This also means that the road infrastructure, pedestrian services, and safety, may need major rehabilitation.
Still, it is only by infusing the historic core with its full role as a place of living, of socio-economic and cultural creation, and shared enjoyment and memory, and by means of compatible activities that we can enhance the historic cores of both cities. Attracting the youth and university students to live back in the core and arouse their interests to contribute further to the local cultural identity could thus restore the cores’ collective memory and authenticity.

The main concerns, obstacles and challenges to the implementation of any conservation strategy are:

1- Private ownership of monuments constraint; most of the heritage buildings are privately owned monuments with multiple owners. Therefore, a dialogue with the local community in the city and residents outside the city about the benefits of conservation or investments should be given higher priorities.

2- People’s perception about conservation and local benefits. A majority of heritage buildings stand vacant and the main investments are driven by the government. There is also a need for pilot projects to encourage heritage building owners to invest in similar uses and attract the middle-class families, including the youth, to come back and live in or engage with the city core. Adopting and encouraging small to medium investment projects, and not only thinking of any "Urban mega phenomena of investment" as the cornerstone for success, is crucial. Concurrently, incentive programs need to be put in place, to increase the sense of belonging and encourage the building owners at the two cities to contribute to their city through investing in new public-private partnerships, upgrading their heritage properties, and initiating community development projects. There is a need to demonstrate a practical mechanism to increase local participation in heritage conservation, such as financial incentives (tax exemptions), or small loans to house owners and tenants for maintenance of their houses, with very little interest.

3- Physical planning and landscaping- environment challenge; conserving the urban/cultural & natural heritage landscape of the two cores require declaring entire sites as regulated heritage districts. Salt has declared the city centre an area with special regulations with planning restrictions on certain areas for visual protection of the setting, but not in relation to protecting the natural assets of the valley and its cultivated lands. Moreover, in the absence of a declared register for the traditional buildings, only marked on the land-use plans and with no proposed detailed building regulations for heights and densities per plot, no progress can be achieved. On the other hand, Irbid’s historic core has neither legal protection nor special regulatory status for its historic core and its related heritage assets of surrounding natural and agricultural lands.

A balance between the needs for urban renewal and protecting the landscape morphology of the old cities’ cores should be respected within its environmental and natural significance. The study of Shafa Balqa 2030 -published in 2012- recommended that the city of Salt be developed as a tourist destination by protecting not only the cultural heritage core but also the natural valley system as well as its surrounding cultivated lands, but no relevant plan has been approved to date.

Strategic planning for future urban growth necessitates using tools such as a GIS system to develop comprehensive land use plans and create applicable buffer zones (Al-kheder et al., 2009) in order to protect the heritage core of the city while linking it...
with its surrounding environment. Such plans should include not only all the heritage buildings, stairs, open spaces but the valleys, water springs, trees and natural assets.

4- **Accessibility/mobility enhancement challenge:** Regarding the traffic problems at the historic cores, there is an urgent need for enforcing measures to reroute the traffic to reduce the pressure on the historic cores of the two cities. Pedestrians are forced to use narrow congested sidewalks of heavily trafficked streets during the day to move between the pedestrian. It is obvious that discontinuity of the pedestrian flow would hamper any proposed visitor or touristic experience.

**TOWARDS CONSERVATION ACTION PLANS AND PROGRAMMES**

A conservation plan can enable people living and working in the historic area to preserve their traditional buildings and spaces while creating an urban environment that is in tune with today's requirements (Smith, 1988). There are two main aspects, often considered to be contradictory, that direct the framework of an action plan for the historic cores; those of economy and culture. Consequently, the conservation strategy should be formulated as an alternative to the much more common pattern of development versus heritage (Mohit and Kammeier, 1996). Ultimately it is only with this more democratic, participatory process that a more meaningful and sustainable conservation and restoration programme for the two historic cores can succeed and be developed.

The priority objectives of a sustainable rehabilitation for the core should aim towards *Improving residents’ quality of life; Valorisation of cultural & natural heritage; Improving social cohesion;* and *Promotion of economic vitality and environmental efficiency* (RehabiMed, 2008). In summary, the recommended action plan can generally be classified into quantified actions affecting the physical territory and sectorial policies to be carried out (social, environmental and economic actions) at the service of an objective, which is to achieve the desired scenario. The rehabilitation/conservation action plan based on RehabiMed framework includes:

*Actions for modification of the structure and fabric of the core area can include:* Different forms of protection; Specification of compatible functions and uses; Developments of infrastructures and services; Mobility and accessibility plans; and Linking with bordering areas.

Projects of intervention on architecture and open spaces can include: Rehabilitation projects of existing buildings; Guidelines for the insertion of new architecture; and Projects for the linkage of public open spaces.

The economic, social and environmental policies; i.e. tax-exempts for owners restoring their buildings; training policies, greening policies, etc.

However, the task for architects, planners and municipal administrators is not only to preserve prominent façades of traditional built environments and adapt them to conform to the more positive aspects of modern life, but also preserving the integrity, values and collective memory of the community itself, while upgrading the elements to comply with modern life standards and expectations.

Although several studies and projects assessed the heritage buildings in As-Salt, mapping of the collective memory was not a major concern for planners in the rehabilitation of the Ein Plaza. Even the remaining seeping water of the spring (Ein) from which the plaza took its
name has not been recovered and was pushed back by pouring concrete when the congressional Mosque underwent a facelift recently by 2010.

**Hence, actions for the modification of the structure of the present cores should include as a priority:**

**Reinstating the traditional and cultural identity of each traditional neighbourhood of the two cores by:**

Encourage the use of the abandoned buildings, even for compatible temporary activities instead of being nodes for waste collection.

Reinstate the traditional residential use of the different neighbourhoods (Al-Khader in Salt and Al-Mamluk at Irbid for example).

Provide new attractions such as refurbishment of neighbourhood plazas and provide public services and inject appropriate activities at night. For example, Irbid Fo'ara Square (Figure 11a, b) provides an introductory open space to the residential cluster and ensures easy pedestrian accessibility and flow. Small open spaces in neighbourhoods can also be turned into small gardens as proposed for Al-Khader at Salt (Figure 20).

More strict regulations on demolishing buildings, which must not be done unless as a last resort. Where replacement of buildings is necessary, it is essential that replacement or infill buildings are of appropriate scale; otherwise, the units will lose their identity even if the street lines remain unchanged (Whitehand et al, 2011).

**The introduction of a safe pedestrian network.** Altering the existing street network to enhance pedestrian connectivity and introduce new pedestrian paths, as proposed at the historic core of Irbid including the available open spaces (Figure 22) and in the new development plan for the Oukbat bin Nafee area at Salt (Figure 23), is crucial.

There are real obstacles and problems in accessing the heritage sites with the current road system which contributes significantly to the isolation problem they are suffering. The major issue affecting continuity is the heavy traffic along the main streets at the two cores. In addition, enhancing security measures is required such as in using surveillance cameras feeding into the closest police kiosks. Figure 22a proposes a safe pedestrian network between the Northern and Southern part of the core of Irbid with an underpass at al-Hashimi Street, a solution to heavy traffic while linking the Tal with the rest of the enhanced pedestrian network of the heritage city core. Activation of the role of the different traditional suqs while also enhancing the residential neighbourhood of the western Mamluk mosque can enhance the pedestrian network (Figure 22b).

The project of developing the Oukbat bin Nafee area at Salt also proposes allocating underground parking space and strengthening a safe pedestrian access to the core. Additionally it proposes maintaining a green lung in memory of the cultivated lands of Salt while activating the water recharge of the valley (Wadi As-Salt) within a comprehensive vision for reinstating the role of the Wadi of Salt as an integral element of the city development (Figure 23). Currently provision for parking and allocating an open space is being implemented in the city but without a comprehensive vision for reinstating the role of the valley, in relation to the cultural assets of the city and its collective memory.
Figure 22. Proposed areas for intervention at the historic core of Irbid. a. The introduction of a safe pedestrian network and open spaces between the Northern and Southern part of the core, and underpass at Al-Hashimi Street. b. Actions for the enhancement of the traditional Suqs and residential quarter of the Mamluk mosque (Source: Authors).

Figure 23. Reinstating Oukbat bin Nafee area as part of the vision for rehabilitating the valley of Salt, while allowing for city parking, easy pedestrian accessibility to the core, in addition to a vegetable market and green park. (Source: Fakhoury and Haddad, 2014, fig. 11, 12, pp. 40, 41).

While ‘Projects of intervention on architecture and open space’ could include:

Setting an outreach technical office to residents for the rehabilitation of the traditional buildings. Although technical information cards have been developed to direct the building owners to common conservation and maintenance for their buildings, as part of CulTech project, the municipality, and related authorities still did not, to date, distribute the information cards to the relevant owners or users to guide them on maintenance procedures.
Introducing simple natural landscaping elements at some neglected open spaces with good views can contribute to the open spaces to serve both the local community and visitors-tourists. Creating neighbourhood playgrounds, public parks, and open spaces or enclosures, such as proposed for Al Khader/Rummanat neighbourhood in Salt. (see Figure 24).

![Old Plan and New Intervention Plan](image)

Figure 24. Left over spaces to be developed as green spaces between the residential heritage buildings of Al-Khader neighbourhood of Salt. (Source: Fakhoury and Haddad, 2014, fig 25, p 48)

**SUMMARY AND CONCLUDING REMARKS**

The urban heritage should be considered as a basis for urban planning and development projects at the historic cores of Salt and Irbid, so as not to be ignored and neglected further, as has been done. Those two core areas have unique cultural features and there is an urgent need to avoid further fragmentation caused by modern structures. Therefore, exclusion of such urban heritage would lead to the loss of integrity and further urban degradation. Thus while conservation of the urban heritage must contribute to the quality of life of people, the recovery of the abandoned buildings in the two historic cores can trigger the beginning of new regenerative programs, contributing to the sense of belonging and identity for the communities at Salt and Irbid historic cores. It actually can play a genuine role in an emerging pattern of interactions between modern and urban heritage sites, with its rich traditional buildings and historic landscapes.
In Salt and Irbid, the key issue is related to the existing urban policies, and the absence of a comprehensive masterplan to organise the various land use activities, vis a vis their heritage properties. This is actually causing an excessively negative urbanisation process at different places, where some significant heritage buildings and units can still be replaced with modern inappropriate scaled structures, and thus, the units lose their identity, authenticity, and collective memory. Selected key houses appropriated by the municipalities were turned into museums interpreting the collective memories or local history. It is stressed that these need to be seen as part of conservation action areas, so that their sustainability and revival will be most feasible.

Lack of planning, research, and public awareness about the cultural significance also caused major drawbacks in Salt and Irbid historic cores. Meanwhile, engineering contractors responsible for the rehabilitation of heritage buildings must be certified according to the quality of their previous work and experience (training on restoration techniques).

Conserving the original zoning in the heritage blocks can help avoid residential gentrification, which in part keeps heritage buildings within a block inhabited and protected. The lack of active public participation and available applicable legal, financial and technical mechanisms suggest the urgent need for a conservation action plan with sufficient technical and training programmes. This should be coupled with tax incentives to encourage owners to restore their residences and encourage new partnerships with local non-governmental organisations, amongst others, to strengthen the local initiatives for the creative reuse of these assets and strengthen their sense of ownership.

The local community, thus, must be treated as a major stakeholder of the development project. However, more specific regulations must be carried out to protect heritage buildings from any intervention made by owners. Any conservation strategy should create certain tools to engage the public and attract the middle-class families to come back to the historic cores to solve the current urbanisation problems at the two study areas.

In spite of some differences between the urbanisation phenomenon at the two heritage cores of Salt and Irbid (mainly in relation to the number, spread and density of heritage buildings and scale of the historic core, the number of population, the role of the municipality and central government, etc.), still we can confirm that the challenges are similar. This supports the hypothesis that a sound strategy for the sustainable conservation of traditional cores in Jordanian cities is urgently needed for a sustainable conservation of the Jordanian historic city cores. In conclusion, the two historic cores provide an excellent opportunity to embark on a bold conservation strategy that can put these city cores on the map of innovative city planning in the 21st century. The collective memory will become an agent for linking generations through which it is possible to give further importance to the place where the events unfolded for the past, present and future inhabitants of those two historic cores.

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