

## Architectural Story of Jordan

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**Abstract:** Urban areas have always been rich scenes since they embody too much diversity and dynamics in both physical and social means for various disciplines. In the current era that we are living in, the criticality of urban areas has become more important with its rapidly increasing population and problems globally. This paper seeks to address an overview of the historical and architectural background of the evolution and improvement of Jordan architecture, by looking at its interaction with other civilizations that have passed on Jordan. In order to understand and comparison tendencies, it is necessary to see some projects in Jordan which compose the examples and evaluation part of the paper. The results for the selected projects confirmed two different types of relations which the Jordanian architects used to confirm the communication with heritage resources as imitation and Inspiration.

**Keywords:** Urban Design, Heritage, Jordan

### 1. INTRODUCTION

Jordan is an Arab country located at the crossroads of Asia, Africa, and Europe in Western Asia, on the east bank of the Jordan River. Before 1946 Jordan was part of various empires, kingdoms and lordships. Jordan is bordered by Saudi Arabia to the south and east, the Red Sea to the south, Iraq to the North-East, Syria to the north, and Palestine to the west Figure (1. Jordan is a constitutional monarchy with representative government, based on a Constitution established in 1952. Jordan has an area of 89,213 square kilometers and the lowest point in Jordan and in the earth is the Dead Sea (- 408) meters below the Sea Level and, in contrast, the highest point in Jordan is Jebel Umm El Dami, which lies (1854) meters above sea level.



Figure (1) Jordan map

Jordan is deep in history and home to some of mankind's earliest settlements and villages, and relics of many of the world's great civilizations. Archaeologists have found evidence on inhabitation dating as far back as the Paleolithic period. As well three kingdoms in Jordan emerged; Edom, Moab and Ammon. After these kingdoms the lands were part of several empires; most notably Roman Empire, Nabataea Kingdom, and all periods of Islamic then the Great Arab Revolution began in 1916 and ended the era of the empires. There is great heritage left from these empires including many important cities and architectural landmarks like temples, castles, Masjids, public squares and so. In 1922 the Council of the League of Nations officially recognized the Emirate of Transjordan. In 1946, Jordan became an independent sovereign state officially. Jordan has been divided into 12 governorates. After establishment of Jordan, Jordanian architecture passed through numerous stages especially under the influence of Ottoman and English architectural styles which had clear effects on especially public buildings and houses. The most famous "Ottoman style" buildings in that period were al-Husseiny Grand Masjid (1923), and Raghadan palace (1926) Figure (2). The English architectural style came under the influence of elites, who had the authority and received their education in Western countries.



**Figure (2) Raghadan palace (Ermakvagus, n.d.)**

Jordan has diversity of landscapes; dry steppe in the north to large expanses of sandy desert in the south. Some of the richest and longest archaeological sequences in the Middle East are found in Jordan. An example is the 9,000-year-old Neolithic houses of Beidha. The Nabatean city of Petra which dates mostly from the first century BCE and the third century CE, is another of such architectural wonders. In Petra, series of magnificent (and quite large) facades are carved into the light-colored sandstone (sedimentary) rock. Further north a series of cities called the Decapolis (Umm Qais, Jerash, Pella, Umm Jemal) testify to the prosperity of this space throughout the Classical and Byzantine eras. Throughout this era multiple churches with mosaics were designed, a good symbol being the one at Madaba which incorporates a mosaic map of the west bank/Palestine. (Petersen, 2011)

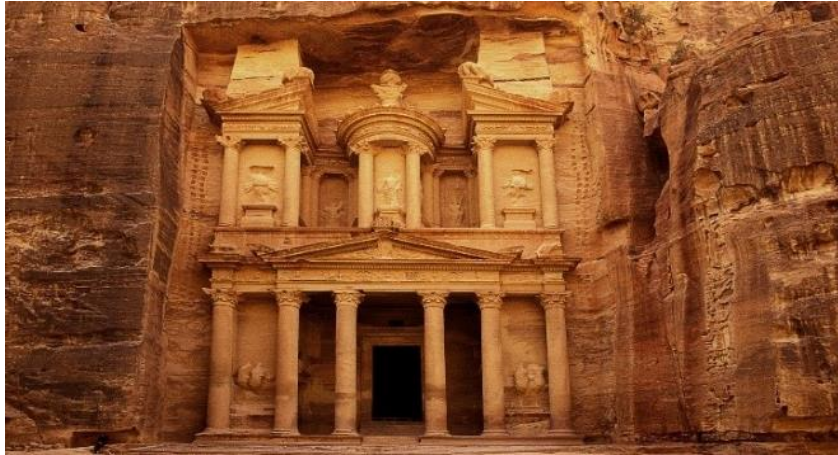


Figure (3) Al Khazneh (The Treasury of Petra)

## 2. Architectural Heritage

### Roman-Byzantine (63 BCE 224 AD)

In 63 BCE, Pompey conquered Levant which was the beginning of Roman control on Jordan, Syria, and Palestine. In 106 AD, Emperor Trajan annexed the nearby Nabataean Kingdom without any opposition. The Nabataeans continued to flourish and replaced their local gods with Christianity. In 390 AD, Christianity had become the official religion within the empire Roman rule. There is great heritage that have been left from Roman-Byzantine period which consist of many important architectural landmarks such as Jerash, the Temple of Hercules and the Roman Theater Figure (4). Jerash seems to have been the most marvelous heritage that is outside of Italy and one of the greatest district cities in Rome's empire. (Theplanetd, n.d.)



Figure (4) Theatre of Jerash (theplanetd, n.d.)

### **Sassanian Influence ( 224- 651 AD)**

The Sassanian Empire is fourth Iranian dynasty. The Persian Empire was one of the main powers in Western Asia and Europe alongside then Roman and Byzantine Empire. During Khosrau II's rule in 590–628 Egypt, Jordan, Palestine, Lebanon was also annexed by the Empire. Qasr Kharana is one of the most important architectural heritage left from Sassanian Empire. Kharana contains two floors, corner towers and a rounded entrance. The building is made out of mortar with decorative courses of flat stones placed in bands running around the outside of the building but the building lacks the water source FigureFigure (5).



**Figure (5) exterior of Qasr, Kharana (Wikimedia, n.d.)**

### **East-West Influence (661-750 CE)**

The combination of eastern and western influences was represented by two buildings dated to the later Umayyad era. The employment of baked brick and walls, vaults and dressed stone masonry for basis and architectural details was the foremost apparent demonstration of those mixed influences. Qasr Mshatta is that the most notable of those buildings, it consists of an outsized sq. enclosure with four semilunar strut towers. The southern semblance that encompasses fine inscribed stones, moldings incorporating animals and plant motifs at intervals a geometrical strategy of huge triangles, is that the known feature of this palace. From the within, the building is split into 3 longitudinal strips; solely the central strip (from north to south) was developed and contains at intervals it the doorway, the central court and also the audience hall. (Petersen, 2011)





**Figure (6) The facade of Qasr Mushatta now located in Berlin at the Pergamon Museum (Umayyad Art and Architecture, 2008)**

### **Medieval Period (750 - 1516 CE)**

Jordan was unheeded during the Abbasid and Fatimid due to the geo-political conditions when Abbasids moved the capital city from Damascus to Kufa, because of this; the leftovers of the Abbasid and Fatimid period in Jordan are rare. The only place that have been uncovered from this period is Aqaba and Aqaba seems to have reached its peak of prosperity during this period. Later on, the intrusion of the Crusaders was In the Ayyubid and Mamluk periods, therefore most of the well-known buildings from this period that represent the Crusader presence are castles and forts. Qal'at Ar-Rabad Figure (7) that consists of several thick walled towers with V-shaped arrow slits linked by curtain walls, is one of the castles from this period.



**Figure (7) Qa'lat Ar-Rabad (crumbs on travel, 2014)**

### **Later Islamic Architecture (1516-1918 CE)**

Early Ottoman architecture was very simple and was not grandiose and lavish. Since it is impossible to analyze the early period Ottoman architecture detail, it can be said that it usually had small structures with

giant embellished arrow slits, protrusive machicolations, and huge crenelated parapets. Forts of throughout this era (i.e early ottoman) square measure additional useful and have little gun slits rather than giant arrow slits, incorporating protrusive corner towers to extend vary or field of the fireside. Other early Ottoman buildings in Jordan are difficult to date so precisely, though the fortified farmsteads at Yadudeh and Udruh in all probability each date back the eighteenth century. Umm Qais north of Jordan, one in all best samples of nineteenth-century design moreover as al-Salt west of Amman. Amman, however, varies from the opposite cities in north Jordan because it was settled by Circassian refugees. Distinctive features of Circassian homes are the employ of wood, the introduction of chimneys and little rooms. (Petersen, 2011)



**Figure (8) Hajj forts (Dauphin, 2016)**

### **3. Materials used in Jordanian Architecture**

The utilization of natural environment materials such as stone, straw, and mud, it's the characterized of Architecture in Jordan. Jordanian Architects interacts with natural materials and connection these materials to the local environment and the climatic characteristics of the place. Since the birth of ancients; the stone is one of the elementary material for building, as well as it is the basic material for Jordanian Architects especially when Jordan characterized by availability and diversity of building stone, due to the spread of the rock layers with specifications suitable for construction purposes. However, the Jordanian architecture did not use the stone in internal facades in buildings; they prefer the internal session be comfort and calm. The use of stone is limited to external facades.

Each area in Jordan people use the stone for that area for conductivity. They used basalt stone in the northeast and the sandstone in the south and limestone in the northern and western Jordan. (Mohannad Tarrad, 2012)

#### 4. Contemporary Architectural practices

This part focuses on the examples of architectural practices in Jordan starting from 1980's until today. The examples are examined through a series of data as the project title, name of a designer - if it's known- the date of implementation, explanation about the concept of design and how it is related to urbanization or to the architectural heritage of the region. The reasons of making this selection of buildings are:

- 1- To understand and assess the amount of urbanization and the importance of urban planning / design for Jordanian architects.
- 2- To understand and evaluate the current tendencies in these practices.
- 3- To identify the levels of communication and design relations used by the Jordanian architects to achieve communication with the heritage resources deployed in the region.
- 4- To study the conditions of establishing and development of Jordanian architecture and identify its characteristics in general.

#### Al Burj Building

Architect: unknown

Year: 1979

Location: Amman, Moyed Street

Al Burj is a Multi-purpose center within 91 meters tall which made of reinforced concrete, consisting of shopping center, car park, Health Club, offices, and hotel. It was designated by the government as a historic building. Al Burj one of the earliest projects of contemporary architecture in Jordan, where the tower took the Western character "English style".



Figure (9) Al Burj Building (archilovers, 2014)

### **Jordan's Parliament Building**

Architect: Rasim Bardan

Year: 1980

Location: Amman

The building consists of the main hall, where the meetings of the Senate and the House of Representatives are held. The designer has adopted variety of modern and Islamic style. The Islamic style appears by the use of the octagonal shape in plan and repeated arches in elevations and the use of the dome, even though the dome monopolized only for mosques. The modern style appears by use of hollow bricks and glass.



**Figure (10) Jordanian Parliament Building**

### **Ministry of Communication and Information Technology**

Architect: Deeb Sha'a'ash

Year: 1982

Location: Husni Soubar St 3, Amman

Ministry of Communication and Information Technology sets policies and legislations to regulate the ICT sector, and to complete and sustain the e-government network in Jordan. The building consists of ten equivalent floors. The designer combines Nabataean style which appears by replica elevation of "Khazna" in Petra, with modern style which appears by use materials like natural shaped stone and glass surfaces on the main elevation.





Figure (11) Ministry CIT (Google)

### City Hall of the Greater Amman Municipality (GAM)

Architect: Badran, and Toukan

Year: 1997

Location: the Amman downtown area

5-storey building accommodates various municipal departments within an area of 17382 m<sup>2</sup>. It has squares paved with stone, fountains and flower pots and a metal overpass linking the building with City Hall. The building is designed within a mixed style that combines both modern and Roman-Islamic features. Where the part circular in the building embodies Roman castles, and the arches and columns symbolize Islamic architecture, and the glass indicate the modern style.



Figure (12) City Hall of the Greater Amman Municipality (Google)

### Urban Planning and Landscaping of Ras al-Ain

Architect: Bilal Hamad

Year: 1997

Location: the Amman downtown area

The site located in the heart of the city of Amman within 168000 m<sup>2</sup> area wide running along one of the main thoroughfare of Amman. It consists of administrative building of GAM, historical museum of Jordan, the cultural center, parks and public squares. The foremost critical landmark of the site is the fountain square which is located at the end of the complex. It's a circular shape plaza surrounded with the colonnaded building. This spatial organization can be interpreted as an attempt to simulate the unique oval colonnaded Forum in Roman Jerash city.



Figure (13) Ras al-Ain complex (google)

### Royal Hotel

Architect: Richard Martine

Year: 2002

Location: Zahran St, Amman

The Royal is one of the tallest buildings in Amman with a height of 108 m and 31-storey, it's also one of most distinguished monumental buildings in Amman built in a modern way. The building embodies the culture of the owner's "Iraqi nationality" that is evident in the design through the imitation of the Tower of Babel in the city of Samarra in Iraq, which belongs to the Islamic style in Iraq.



Figure (14) The Royal hotel

### Palace of justice

Architect: unknown

Year: 2002

Location: Sulayman An Nabullsi, Amman

The Palace of Justice is a governmental building with several main courts located in the center of the Jordanian capital Amman, with a total area of 47,000 square meters. The building is designed in accordance with the Islamic architecture style, embellished with complicated ornate stone arks, and the lobby in the middle that covered with decorative granite.



Figure (15) Palace of justice (abueisheh)

### The gate of Petra University

Architect: unknown

Year: unknown

Location: Airport Rd, Amman

There is no reliable information about the gate; but it is clear that the designer tried to combine the modern and Nabataean style, as well the designer did not rely on replica but used the style of abstraction. An abstraction method is used through height, shape, and use of stone material referring to modernity.



Figure (16) The gate of Petra University (University web)

### Islamic Gardens in King Hussein Public Park

Architect: Aiman Zoaiter

Year: 2005

Location: Amman

The Islamic Gardens or Islamic village is part of King Hussein Park, covering an area of 10000 m<sup>2</sup>. It's very clear that the arches, columns and decorations symbolize Islamic architecture. According to Rjoub "The main idea was to represent the various heritage and topographic areas of Jordan. The Islamic Garden designed by the Islamic Spanish theme utilizing the formal design of gardens and the usage of water elements (fountains and pools) decorated with elegant stone works, marble mosaics and soft landscape elements." (Rjoub, 2016, p. 9)





Figure (17) Islamic Gardens in King Hussein Public Park

### King Abdullah II Performing Arts Center

Architect: Zaha Hadid - Patrik Schumacher

Year: 2008 - in progress

Location: Amman

The building consists of concert theatre, an educational center and galleries. World-wide known architect Zaha Hadid declares that the design is inspired from the eroded elevation of Al-Siq canyon in Petra with its rose-colored, carved and polished walls.



Figure (18) King Abdullah II performing arts center (Rjoub)

### Jordan Museum

Architect: Ja'far Toukan

Year: 2010

Location: Amman

The Jordan Museum is the new national museum and is considered as one of the largest museums in Jordan, located in the Ras Al Ain area of downtown Amman. The Jordan Museum presents Jordan's historical and cultural heritage within its unique design halls, a national center of knowledge that reflects the history and civilization of the country in an innovative educational way. The architect used the local stone reflecting the traditional style of the region.



**Figure (19) Jordan Museum building (Rjoub)**

### **Al-Hamshari Masjid**

Architect: Atelier White

Year: 2012

Location: Amman

Covering an area of 21.000m<sup>2</sup>, the masjid is located in Khalda. It is constructed as three separate rectangular entities, two of which are for the main halls and the third the courtyard entrance. The style of the masjid incarnates the new architectural approach of Islamic contemporary architecture such as abstractly with the key elements of the mosque (Goldaste, Dome, and Mihrab) to grant them fresh forms and distinctive Architectural style and gives a special concern to the local environmental conditions and contemporary construction systems. (Rjoub, 2016)



**Figure (20) wall al-Hamshari Masjid (Rjoub)**

The results for the selected projects confirmed two different types of relations which the Jordanian architects used to confirm the communication with heritage resources as: imitation, where architect copies more than one element from the heritage resource of certain civilization period and implement it on the new building facade , which gives the viewer a feeling that the building is old as well as to present it in a modernist style that focus on aesthetics and formal aspects using several building materials. Inspiration, where architect taking the causes of heritage resource, its philosophy of design and its content into account and trying to formulate it and use new and innovative thoughts of design.

## **5. Conclusion**

In fact, Islamic architecture is considered as a source of pride and as an evidence of the achievements of this great civilization, also in order to revive the Islamic architectural once again and to connect the Jordanian community with history and authentic civilization. However, these interests emerged in the Jordanian contemporary architecture by highlighting the technical aspects of Islamic architecture by focusing on the aesthetic and educational values related to the social lives of people that formed original multi-functional Islamic urban tissue. Jordanian architects focused on the traditional architectural heritage resources to revive it in classy modern ways in contemporary architecture. This process happened by implementing different meanings, values and presenting appropriate architectural solutions for the architecture contemporary issues in Jordan, either by using the local building materials or using the traditional structural systems which are appropriate socially, economically and environmentally. In addition, during this process it is essential to create the features of the modern Jordanian architectural character through being closer to the human and in harmony with nature.

Finally, Jordan is a country related to ancient civilizations and rich in architectural heritage resources. This heritage is considered as a cultural wealth and it must be preserved in means of heritage and new layers

through the history. This related relation to history has to be examined to clarify its characteristics and benefits and to complete the process of its development to become more convenient with the modern circumstances and variables of the modern era. In fact, the connection to the heritage connects successive generations with different cultural entities of society, and also it obtains an authentic present full of values and noble meanings based on the solid roots and stable foundations derived from its past.

Furthermore, Jordanian architectural attempts to connect to Jordan's heritage are essential steps to counter the dominance of the international architectural styles in various types of buildings in the Arab world including Jordan. These attempts of Jordanian architects to link the past with the present in their design through the employment of heritage resources in modern architecture can help the development process and the modernization of Jordanian architectural character, as well as to discover new architectural features to shape the local architectural identity to fit with the social, economic and environmental conditions of Jordan.

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### قصة الأردن المعمارية

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الملخص: لطالما كانت المناطق الحضرية من المشاهد الغنية لأنها تجسد الكثير من التنوع والديناميكيات في كل من الوسائل المادية والاجتماعية لمختلف التخصصات. في العصر الحالي الذي نعيش فيه، أصبحت أهمية المناطق الحضرية أكثر أهمية مع تزايد عدد السكان ومشاكلهم على مستوى العالم. تسعى هذه الورقة إلى تناول لمحة عامة عن الخلفية التاريخية والمعمارية لتطور العمارة الأردنية وتحسينها، من خلال النظر في تفاعلها مع الحضارات الأخرى التي مرت على الأردن. من أجل فهم ومقارنة الميول، من الضروري رؤية بعض المشاريع في الأردن التي تشكل الأمثلة وجزء التقييم من الورقة. أكدت نتائج المشاريع المختارة نوعين مختلفين من العلاقات التي استخدمها المهندسون الأردنيون للتواصل مع الموارد التراثية كالتقليد والإلهام.

الكلمات المفتاحية: التصميم الحضري، التراث، الأردن.

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