

# The role of landscape character analysis in supporting urban tourism sites in Amman

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## Abstract

Historical and modern urban sites are important attraction points for the city, being considered a favourite destination for residents and tourists. The result of interaction between people and nature on these sites is the landscape, its unique character defining the identity of the place. The landscape character depends on several features, including topography, climate, biodiversity, and the site itself. The landscape character analysis gives a classification based on the characteristics and determinants of the area and highlights the natural strengths and attractions in each area. In this study, the tourism sites in Amman were chosen because of their social, economic, and historical importance as sites located in the capital city and to assess the urban landscape character and determine the function of the tourism sites in the city. To assess the landscape function of the area, an evaluation was made, considering criteria such as: Recreational Activities, Traditional Built Environment, Nature and Landscape Features, History and Heritage, Accessibility, Infrastructure, and Facilities. Score levels were given according to the intensities of the criteria in the neighborhoods within the borders of Greater Amman Municipality, as low, medium, and high according to field surveys at the sites by researchers. The desired result of the study is to make a comprehensive assessment of the importance of the landscape character in attracting tourism to Amman, identifying areas with a high density of landscapes, and drawing up a plan to capitalize on them and highlight their importance to the city.

**Keywords:** Landscape Character, Analysis, Tourism, Recreational Area, Open Public Spaces

## Introduction

Our landscapes are significant to us and part of our cultural heritage. With sympathetic planning, design, and management, they offer an opportunity to provide a more harmonious link between man and the natural world for the benefit of both.

Sensitive, informed, and integrated approaches should help us all conserve, enhance, restore, and regenerate attractively, diverse, and publicly valued landscapes to show that environmental, social, and economic benefits can go hand in hand. Over the centuries, writers, artists, and others have described and enthused our landscapes. They have linked them with the period's social and economic processes and practices, successfully defining and articulating what is unique about our landscapes, whether urban, rural, or somewhere in between. Notably, they illustrated what makes one landscape different from another. Over time, appreciation and understanding of our landscapes have increased via qualitative and quantitative methods associated with the social and natural sciences and are often prompted by the need and desire to record, understand, influence, and manage change (Tudor, 2014). The European Landscape Convention (ELC) definition of "landscape is an area, as perceived by people, whose character is the result of the action and interaction of

natural and/or human factors". Also, it is defined as a part of the land, as perceived by local people or visitors, which evolves through time because of being acted upon by natural forces and human beings (Council of Europe, 2000).

The term landscape usually refers to the holistic mutual relationship of humans with the natural and physical environment (Rajčević et al., 2023), from the same side. The landscape is the result of the action and interaction of both natural and human factors, not only a reflection of our natural history, but also our cultural, social, and economic history. If this landscape is to be protected and enhanced, and if it is to accommodate successfully new development, there needs to be a proper assessment of its character (Draft Planning Policy Statement PPS, 2009).

What makes landscapes different from each other? Is it the elements contained in the site? Or are there other features and characteristics? These distinctive elements are what studies and references have unanimously agreed with the concept of landscape character. Mainly, the whole set of elements like geology, topography, soil, flora, land use, and settlement areas formulate the landscape character. Landscape character adds meaning to that area by making one area different from another. Understanding that one area is different from another will help us contribute to better future planning by considering that

area's environmental and socio-economic factors. Landscape character is the distinct, recognizable, and consistent pattern of elements in the landscape. They can make one landscape different from another with these characteristics (Swanwick, 2002). Landscape character often reflects the state and quality of the landscape and informs planners on how to manage and maintain the landscape. Landscape evaluation is a fundamental procedure for assessing the conditions and quality of a system, and it is the first step toward planning or management actions (Farina, 2000). Landscape character is analyzed through geology, soil, topography, climate, land cover, fauna, and human action in a landscape (Swanwick, 2002). Forman & Godron (1986) stated that a landscape character is formed by (i) landscape structure, (ii) landscape function, and (iii) landscape change.

Many changes to traditional landscapes related to urbanization, transportation, recreation, and tourism have broadened the concept of landscape character to include all types of landscapes, as proposed by the European Landscape Convention (Van Eetvelde and Antrop, 2009). Beyond the urban landscape, there is also the historical urban landscape, understood as an urban area resulting from the historical stratification of cultural and natural values and attributes that encompass the general urban context and its geographical environment, above a historical site or center (UNESCO, 2011); here, tourist development can be an opportunity for conservation (Zárate, 2016).

Landscape and tourism are two closely related terms (Jiménez-García, 2020). The transformation of a "natural" landscape into a tourist landscape implies a fundamental symbolic and physical reordering of the characteristics of the former landscape (Salazar, 2012).

Jordan is one of the countries with limited resources and a limited climate, some areas of Jordan tend to have desert diversity, and some areas contain incredible natural and botanical diversity (Irmeili & Çınar, 2021). Amman, in particular, contains diverse regions, as it is divided into two parts: the historical city and the modern city.

This diversity led to the existence of several diverse areas between urban landscapes and historical landscapes that contain historical structures, which naturally created several tourist sites and different routes within the city limits and on its outskirts. Within the framework of this research study, it introduces the paths of the city of Amman and what distinguishes them from the elements of the natural and historical landscapes, and demonstrates their role in supporting the tourism of Amman.

Generally, Jordan recorded a total of two million tourists in 2021, ranking 51st in the world in absolute terms, by putting the tourist numbers about the population of Jordan, the result is a much more comparable picture: With 0.18 tourists per resident, Jordan ranked 87th in the world, while in Western Asia, it ranked 8th (World Tourism Organization, 2022).

The main idea behind Amman's vision for tourism and recreation is that the importance of tourism and recreation is deeply woven into society. The sector contributes to the success of other sectors and a variety of societal challenges (quality of life, happiness, inclusion etc.), it benefits public facilities and infrastructure, and it can lead to more investments and support for new public facilities.

## **Theoretical background**

Cities contain several types of open public spaces, such as green spaces, historical sites, squares, and heritage markets. These places are important destinations for tourists, visitors, and even city residents. Therefore, the elements in those places need to highlight their identity to suit the function that happens in the location.

Tourism activities must be organized in all environmental, historical, health, and economic aspects. Within the health field, the primary key is implementing strict health protocols in tourism activities. This condition requires increasing immunity by maintaining health, eating healthy foods, exercising, increasing happiness, reducing stress, and basking in direct sunlight. Efforts to increase immunity can be divided into internal and external—individual efforts to improve immunity as an internal factor and external by creating tourist destination facilities (Wikantiyoso et al., 2022).

### **2.1. Landscape Character and Public Spaces**

Public spaces are not just empty voids. They are typically filled with soft and hard landscape elements to help shape their character. What we put into our public spaces is just as important as the space itself. Public spaces are open to all, regardless of ethnic origin, age, or gender, and as such, they represent a democratic forum for citizens and society. When properly designed and cared for, they bring communities together, provide meeting places, and foster social ties of a kind that have been disappearing in many urban areas. These spaces shape the cultural identity of a site, are part of its unique character, and provide a sense of place for local communities (Woolley et al., 2004).

Evidence shows that people use their local public spaces more and are more satisfied with them if they include natural elements: a green and pleasant space is generally a well-used space. A study in Chicago found that people living in apartments tended to use nearby public spaces more if they were 'natural' than if they were artificial. This increased use of the green spaces led, in turn to a more significant amount of socializing among neighbours – initially as they met while simply pausing to sit, and later to deepen social ties (Kuo et al., 1998).

In addition, open spaces play an essential role in defining urban landscape character and are instrumental in addressing critical contemporary urban design issues (Gill et al., 2007; Lenzholzer, 2015).

## 2.2. Tourism and Landscape Character in Public Spaces

As statistics show, tourism is a privilege of urban areas. Many cities play the tourism card, investing a lot of money in new types of equipment and urban regeneration projects to change specific neighborhoods' unappealing image and turn them into touristic targets. For many, tourism is a cornerstone of a policy of urban development that combines a competitive supply able to meet visitors' expectations with a positive contribution to the development of towns and cities and the well-being of their residents (Cianga, 2013).

Such an approach has its advantages, both for the residents and the tourists, in terms of safety and security, sanitation and salubrity, hospitality, and social interaction. Tourist attraction strategies lie in promotion campaigns that present the "urban offer" (tourism resources, leisure equipment, urban environment quality of life, etc. (Vlès et al., 2005).

Tourists have become more fastidious and look for unique experiences. New types of tourists have appeared: globe trotters, city breakers, and tourists coming for niche tourism practices. Consequently, destination marketing that has traditionally been aligned with growth-oriented strategies is now changing course for a responsible marketing approach preserving the resources of a tourist destination and providing a high-quality visitor experience (Wray et al., 2010).

This type of marketing builds a "narrative city" where each place has a story to tell, and a message to send. Of

course, such a marketing strategy will be most effective in terms of tourist attraction, but the risk is "narrative reduction" (the construction of an impoverished image, that is based on a depleted historic background). In this respect, promoting the idea of a "green, sustainable city" has to be ensured by the existence of natural amenities (i.e. gardens and parks) and non-polluting equipment (Vlès et al., 2005).

## Material and methods

Most cities have a long-civilized history, and the aspects of modern cities rely on it. However, some historical sites remained clear within the components of modern cities, so they became distinctive landmarks and points of attraction for local visitors and tourists, even becoming essential places for recreation and changing the routine of contemporary life (Irmeili & Çağlayan, 2022).

Because of the importance of the public historical and modern sites, this paper focuses on the landscape character in the zone between these locations and how the identity of the landscape character makes the place unique and different. A three-stage study was carried out to determine the landscape character function in the study area (Table 1).

Based on several previous studies in the scope of the landscape character assessment, this research was based on several elements obtained from previous case studies for research within the same field, where the following assessment elements (Table 2) were considered.

**Table 1: The Methodology Structure of The Study**

i.	Literature review and background about the concept of the landscape in open public spaces and the relationship between the landscape character and tourism.
ii.	Mention the case study "Amman", list the 12 official touristic routes of the city, then choose 3 of them according to the location of the route (center or border of the city) and the route elements (historical or natural), by using GIS maps for the location of each route.
iii.	Conducting a field survey at the site, recording observations, analyzing them, and comparing them with information and previous studies obtained, the field survey in spring/summer 2022.
iv.	Rely on criteria from previous studies such as Recreational Activities, Traditional Built Environment, Nature and Landscape Features, History and Heritage, Accessibility, Infrastructure, and Facilities, evaluate the routes based on field surveys as low, medium, and high levels and summarize them in table form to be clear and to be developed for future studies.

Source: Republic Hydrometeorological Service of Serbia, Climate Yearbooks 1961-2020

**Table 2: Landscape characters and infrastructure for tourism routes (Zakariya et al,2020)**

Criterion 1: Recreational Activities	Criterion 2: Traditional Built Environment	Criterion 3: Nature and Landscape Features
Traditional games, agro-tourism, extreme sports, festivals and events, user-based activities	Traditional houses, local landmarks, local materials	Natural landscape (hills, mangroves, river), nature-based recreation
Criterion 4: History and Heritage	Criterion 5: Accessibility	Criterion 6: Infrastructure and Facilities
Language, historical sites, traditional customs, legends /myths /folklore	Good road system, distance between destinations, public transportation, parking	Petrol station, directional signage, public toilets, religious facilities, rest area, accommodation

		Lookout points, interpretive signage, visitor center, ATM, convenience stores
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The methodology for assessing the elements mentioned in the table was adopted based on a field assessment conducted by researchers in the city of Amman during the spring/summer of 2022, where 3 scores were adopted to measure the presence of the elements or not, starting from low, medium and high. After the evaluation process, the following equation was used to obtain the general average for each route, the Average of the general factors from the table by the equation:

$$\bar{d} = \frac{a_1 + a_2 + a_3 + \dots}{N}$$

The parameters =  $a_1, a_2, a_3, \dots$   
 $N$  = number of elements

The assessment process came in an organized manner, where the three sites were visited one by one. The routes were tracked in general, considering the recording of all theoretical observations directly and in the first instance. Each track was allocated more than one day to the visit to make sure that the notes were taken. In addition to the observations taken directly from the site, the statistics received from the Ministry of Tourism and Antiquities of Jordan were used to match the tourist numbers with the general condition of the site. The assessment expresses the opinion of the researcher and the extent to which she observes the elements of the landscape present in the current reality of the city's paths, using proven hypotheses from previous studies.

## Material

Amman was chosen because it is the political and economic capital of Jordan. It is also an important destination for tourism. It contains several archaeological and historical areas and other modern areas that tourists consider vital places to visit in the Middle East. Amman is also a densely populated city compared to the rest of the cities, where the population in the year 2021, according to the Department of Statistics, is 4,642,000 (The Jordanian Department of Statistics, 2022).

Table 3 shows the number of tourists who visited historical places such as "Jordan's Museum and Amman Citadel" in the city of Amman during the previous years, as these places are considered landmarks for tourists and a must for tours in the Middle East region and Jordan in particular.

**Table 3. The number of tourists to the Jordan Museum and Amman Citadel in Amman**

Year	Number of International Tourists
2016	68550
2017	128650
2018	176450
2019	235300
2020*	44100
2021*	21500

\* Numbers have decreased due to the general closure of the Corona pandemic COVID 19 (source The Ministry of Tourism and Antiquities 2022)

The European Environment Information and Observation Network (Eionet) defined the touristic route as: Established or selected course for travel consisting, typically, of secondary roads with significant scenic, cultural, historic, geological or natural features and including vistas, rest areas, and interpretive sites matching the scenic characteristics of the course (General Multilingual Environmental Thesaurus). Therefore, the Greater Amman Municipality and Jordanian Ministry of Tourism and Antiquities sought to develop tourism and its diversity, It is always working to develop and create tourist attractions that satisfy the visitor's experience and ensure the prolongation of his or her stay, It relies on direct contact with local communities, which provides new job opportunities for members of the community, increases income, encouraging domestic tourism and develops infrastructure, Which reflects positively on local communities and tourism work in general, from here came the idea of (Tourist Routes) in Amman.

The most favourite tourist destinations in Amman are concentrated in the downtown area, which contains several historical structures and archaeological sites, such as the Roman Amphitheater, al Hussein Garden and Amman Citadel, which surrounded by markets, gift shops and popular hotels.

The idea of developing tourist routes in Amman emerged to give visitors a new opportunity to explore new locations away from the crowded city center (although so far it is the area where services and public transportation are concentrated). Therefore, authorities are working to develop the infrastructure of these areas to officially adopt them as tourist trails that tourists can visit it regularly.

The city of Amman contains many historical and modern tourist routes, which include natural diversity and architectural features. In this research, there are several maps of these routes the contents of each of them, and

some of the landscape features; as the maps show below, each course has its location and features (Table 4).

**Table 4: The touristic routes of Amman (Source URL1)**

Route no	Route name
1	The Route of the Ammonite Towers
2	The Route of the Qurashi Elaf
3	The Route Of Caliph Omar Ibn Al-Khattab
4	Sundials Route
5	Roman Street Route
6	Historic and Blessed Caves Route
7	Adventure Route
8	The Route of the Baptismal Path
9	Hijaz Railway Route
10	The Route of the Cave Boys of Raqeeem
11	Amman Walkway Route
12	Amman River Route

This study focused on the following routes: Amman walkway track, Adventure track and Hijaz railway track, which are the most prominent for the landscape character, as these routes contain elements of the natural landscapes, such as local plants, trees, and natural geographic topography. There are also characteristics designed by people, pertaining mainly to historical landscapes.

The details of the other routes were not addressed in this paper due to the large number of details in all the routes, as each of them requires detailing separately. Moreover, these three routes were chosen because they are the clearest and best prepared to receive visitors. They also contain the most famous historical landscapes in

Amman, as some other routes "not mentioned" are under construction.

Particularly, the main reasons that guided us to choose them are the following;

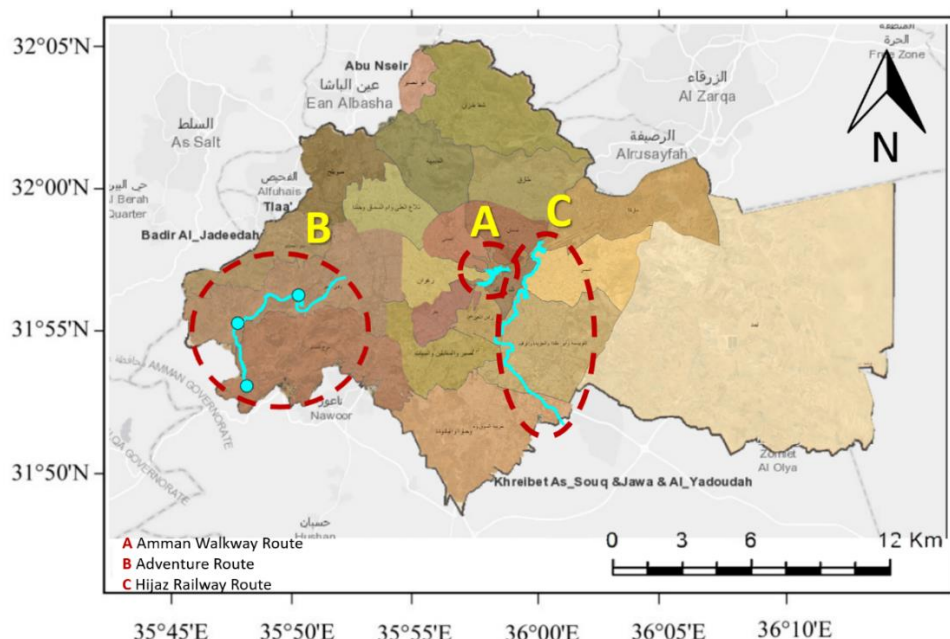
- Amman Walkway Route: it is located in the city center, contains the most famous landmarks in the city and it is the busiest and most visited route.
- Adventure Route - it is located on the outskirts of the city and is the least crowded route for urban buildings and residents. It also contains a good proportion of natural landscapes.
- Hijaz Railway Route - it has the only railway track in Jordan, and it is also the oldest in the country, as it dates back to the Ottoman period. It has many stations that were built in that period and are now being rehabilitated by specialists.

## RESULTS

### The Landscape Character of Amman Routes

The map below (Fig. 1) shows the locations of the selected tourist routes in the city of Amman. It shows that some of them are concentrated in the city center, some on the outskirts of the city, and others start in the city and end outside it).

A: Amman Walkway Track: The Amman Walkway route is one of the most important routes for tourists and the most important one considering the landscape character. This route contains a designed open public area and yards that have been modernized and rehabilitated to receive visitors and tourists. It also contains many Roman ruins, famous amphitheatres on a local and international level, and museums known to visitors and tourists.



**Fig 1. Location of the three routes of Amman**



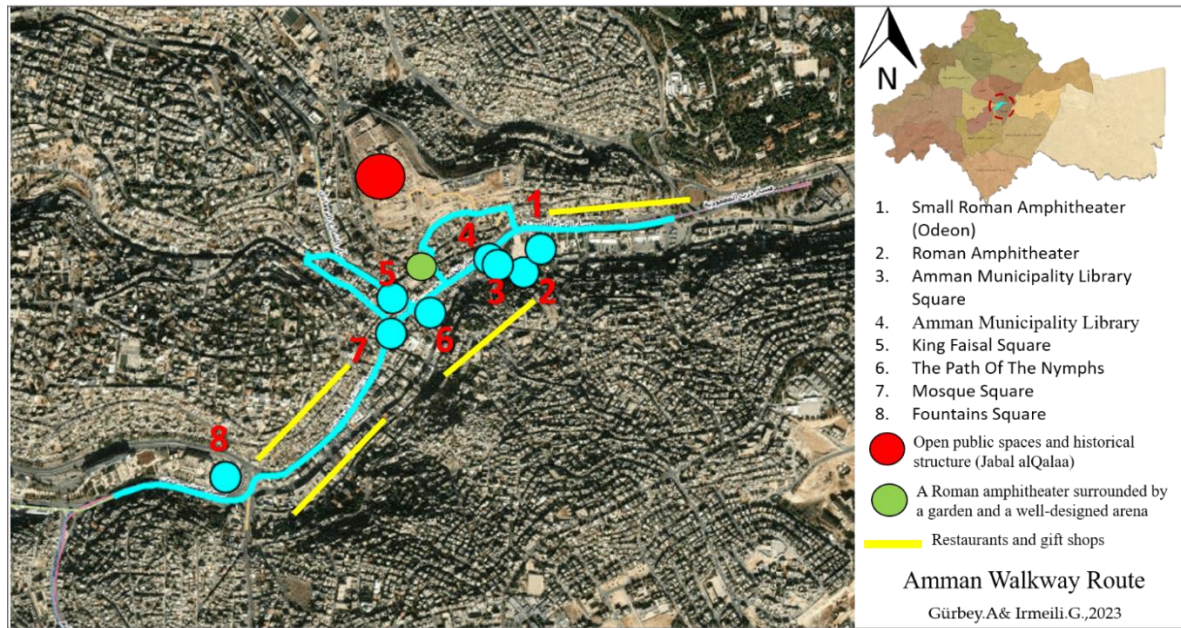


Figure 2. Detailed map for Amman walkway route elements

Table 5. Amman walkway route details; buildings, squares, pedestrian spaces, outdoor cafés/bars/restaurants, trees and gardens; pavements and sidewalks and urban furniture.

Stations of the Route / landmarks	Description and Details
Roman amphitheater	The Roman Amphitheater is one of the largest theatres in Jordan. It is located in the eastern part of Amman at the foot of a mountain. The stadium can accommodate 6000 spectators.
Small Roman Amphitheater (Odeon)	The "Odeon Theater", or the so-called "Winter Theater", is a small Roman arena located in the center of Amman on the northeastern side of the Roman Forum Square, which is also the Great Roman Amphitheater.
Fountains Square	It was established by the Greater Amman Municipality in the Ras al-Ain area near the buildings of the Greater Amman Municipality. It provided it with water fountains to beautify the city.
King Faisal Square	It is the main square in the country's center, opposite the old Arab Bank and the Duke's house. It was an old travel complex and a meeting place for Amman's merchants.
Mosque Square	The square was adjacent to the Hussein Mosque and was the meeting point of the two streets, the Roman Cardo and the Decmanos. The remains of the two streets and the columns accompanying them on both sides were buried below the modern courtyard, which was expanded to accommodate the number of worshipers during Friday prayers.
Amman Municipality Library Square	The square adjacent to the Amman Municipality Library and was part of the square adjacent to the Roman Amphitheater, where shops were spread on both sides of the colonnaded street called the Cardo in Philadelphia, then These parts were buried
The path of the nymphs	It is called the Nymphium building, which means the God of water. It was built during the first and second centuries A.D. It consisted of two floors and was built in the form of a semi-octagonal and made in its walls arches containing statues and a large water basin in front of it. It can be entered from a staircase erected above the arches. Supporting the building, which crosses the waters of the city of Amman from below, the facade of the building was decorated with human and animal statues and multicolored marble, in addition to the columns. Parts of the building were reused in later ages, especially the Byzantine and Islamic ones

The route is concentrated in the historical center of Amman, where it starts from the Jabal al-Qal'a area and the squares around it and ends with a street containing restaurants, gift shops, and markets as shows in details in (Table 5) for the landmark station for Amman walkway route. Therefore, this route's features are considered the

best on the landscape level planners and architects designed (Figure 3). The landscape accompanying this route contains many areas destined for tourists, such as squares, sitting places, gardens, trees, paved paths, local markets, and restaurants.





Figure 3. The Roman Amphitheatre

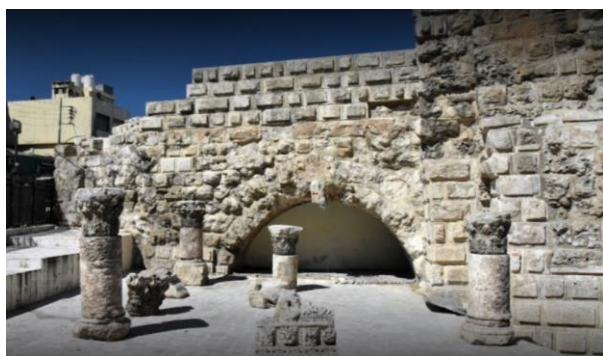


Figure 4. Nymphaeum Archaeological on the Amman walkway route

B. Adventure Route has natural characteristics and depends on the landscape's character in the location. This route relies on natural elements such as springs, mountains, plants, and trees in the area without a specific design. It does not have designed sites for visitors or tourists but rather depends on the idea of adventure between the elements of nature. Generally the landscape character in this area is nature landscape.

This route is located in the western part of Amman. It starts in the "Wadi Al-Seer" neighborhood and ends in the south of the "Marj Al-Hamam" neighborhood, far from residential places. It contains three main landmarks, which are the Ottoman mill, the caves of Iraq al-Amir, the confluence of "Iraq al-Amir Valley" with the "Wadi al-Shata" (Figure 5). The main landmarks and details provide a special natural experience for the visitors inside the city; many historical buildings can be found between the nature away of the crowded buildings (Table 6).

This route contains many natural landscapes, with trees and caves which provide a new experience for the visitors (Figures 6, 7).

C: Hijaz Railway Route (Fig. 8) is the longest as it passes from Amman and continues to other cities outside its borders. This route passes through many areas that vary in character, from natural to archaeological to residential. This route is characterized by the presence of beautiful

landmarks that have existed since the Ottoman period, most notably the ten bridges, "ten arches", and many stations. It can also be considered a unique trip for tourists to learn about city landscapes.

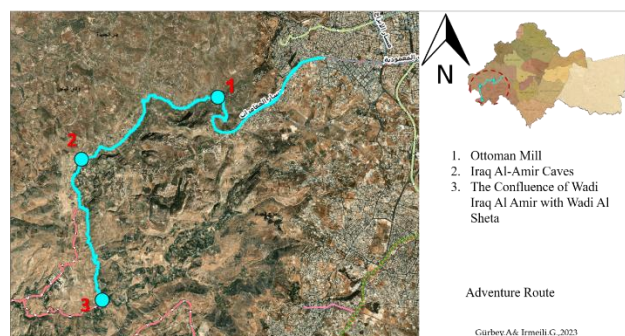


Figure 5. Detailed map for Adventure Route landmarks



Figure 6. Wadi Iraq Al Amir confluence with Wadi Al Sheta



Figure 7. Iraq Al Amir caves (right) on the adventure route

Unfortunately, this route is not fully effective, and it does not pay attention to the landscape character in the stations that pass by and does not maintain its distinction. It needs several recommendations to highlight the landscape character of the city, which was mentioned in the "recommendations" section of the research.

**Table 6. Adventure route details; buildings, squares, pedestrian spaces and urban furniture.**

Stations of the Route / landmarks	Description and Details
The confluence of Wadi Iraq Al Amir with Wadi Al Sheta	This area is called Al-Shadka, and through field surveys, several archaeological sites were found, the most prominent of which is a site with mosaics on the surface, which indicates its importance, especially in the field of religious buildings.
Ottoman mill	It is located in Iraq Al-Amir near the Valley of Darkness. It consists of water channels carried on arcs carrying the water channel, where the power of falling water manages the mill, and it is a rare and distinctive mill.
Iraq Al-Amir caves	A series of caves (18) were an important center during the Hellenistic era, and the historian Josephus mentions these caves were used for religious and worldly purposes, to house horses and others before the establishment of the nearby palace of the enslaved persons

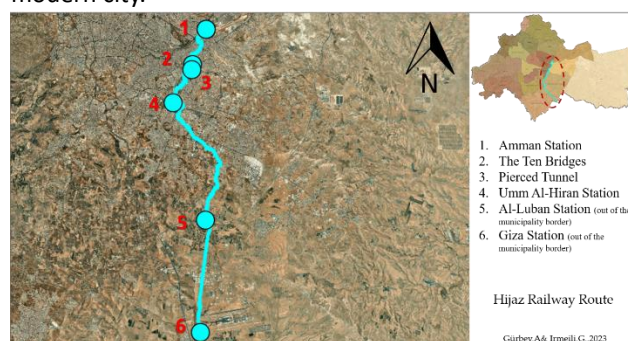
**Table 7. Hijaz Railway Route details; buildings, squares, pedestrian spaces, stations and urban furniture.**

Stations of the Route / landmarks	Description and Details
The ten bridges	An ancient arch bridge with ten arches, dating back to the Ottoman period, and located in the Qweismeh area in Wadi Al-Ramm, southeast of Amman. The Turks built it in 1908 A.D. during the reign of Sultan Abdul Hamid II.
Pierced tunnel	It is located 200 meters south of the ten bridges east of Amman in the Qweismeh area and is used to cross the train heading north to south and vice versa. The tunnel dates back to the Ottoman era in 1900 A.D.
Giza Station	It is one of the stations of the Hejaz-Jordanian railway. It combines the Roman, Mamluk, and Ottoman stations. It contains a vast Roman pool. It was named the Egyptian Giza concerning Muhammad Ali Pasha, who brought with him some of the people of the Egyptian Giza and settled there. There is also an Ottoman building overlooking the Roman pool, which is It is a small castle built on the ruins of a Roman fortress
Al-Luban station	One of the main stations on the railway road before arriving at the airport consists of a building / two-room station and a railway for parking and repairing locomotives
Umm Al-Hiran station	Umm Al-Hiran Station (Al-Qasr Station), one of the historic Hijaz railway stations, is located 11 km south of Amman and is considered the key to Amman from the southern side. The station was built at the beginning of the nineteenth century on 50 acres. The Umm Al-Hiran station connects the stations of the Hijaz line and the customs of Qweismeh
Amman station	It is one of the stations of the historical Hijaz railway that used to connect the Levant and Makkah al-Mukarramah from Damascus. The station is in the eastern Amman region, west of Marka and east of the Roman Amphitheater. The road mediates between the Zarqa station and Ma'an station. The Ottoman Sultan Abdul Hamid II founded it in 1900 A.D. The archaeological building of the station is one of the most prominent landmarks of the historical city of Amman

This route begins in the Marka neighborhood, roughly in the center of the city, and extends south out of the borders of Amman. The main character of this route is the old railway stations (Figure 8), some buildings of the railway station and the famous stone bridge. Although the Hijaz Railway is not officially operated for public transportation purposes, it has been used as an entertainment means for tourists and visitors as an old and valued railway experience in the middle of the modern city. Table 7 shows the most important landmarks that tourists can pass through, between the ancient buildings and the natural landscapes that are displayed, currently this stations being rehabilitated.

Although the Hijaz Railway is not officially operated for public transportation purposes, it has been used as an

entertainment means for tourists and visitors as an old and valued railway experience in the middle of the modern city.



**Fig. 8 Hijaz Railway Route landmarks**





Figure 9. The ten bridges



Figure 10. Al Giza Station on the Hijaz Railway Route

## Discussion

This research highlighted the role of the landscape character in supporting city tourism activities. Maintenance and constant care of the place encourages regular visits. The interest in the place also grows, and the focus of officials and planners shifts to developing and revitalizing these places. The increase of open public spaces and natural landscapes in the city gives it the character of sustainability (Gürbey & Irmeili, 2023).

As a final result using the equation used to evaluate the selected routes, Amman walkway route has scored the highest average (above 2.5), while the Adventure route the lowest.

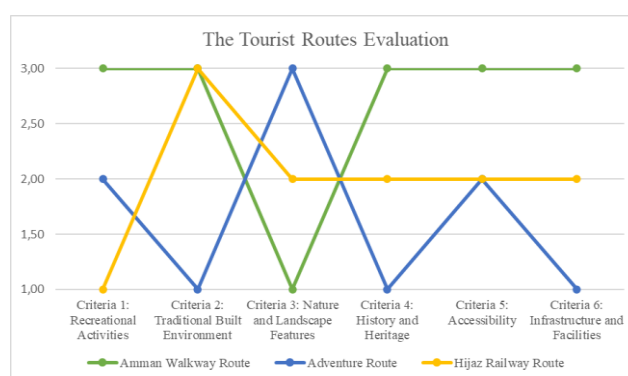


Fig 11. The Tourist Routes Evaluation in Amman

Table 8: Results of The Field Evaluation at The Three Tourist Routes Sites

Criterion no. / track name	Amman walk-way track	The adventure track	Al Hijaz railway track
1: Recreational Activities	High	Medium	Low
2: Traditional Built Environment	High	Low	High
3: Nature and Landscape Features	Low	High	Medium
4: History and Heritage	High	Low	Medium
5: Accessibility	High	Medium	Medium
6: Infrastructure and Facilities	High	low	Medium

Moreover, the Amman Walkway route has the highest score for all 6 criteria, which explains why it is the most popular among tourists and has more visitors.

Therefore, we conclude that if the landscape character is clear and it is also taken care of, the place will be more famous, and thus attract more tourists.

According to this study and previous studies, tourism and landscapes complement each other. Still, attention to the landscape elements increases tourism opportunities and thus increases the city's economic strength and social characteristics. The simple interaction between landscape and tourism is illustrated in Figure 12.

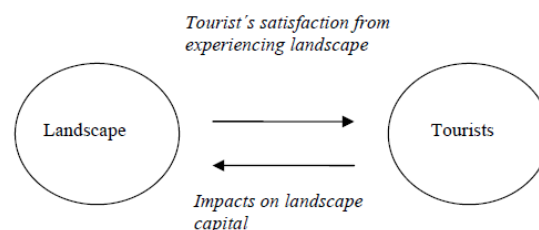


Fig 12. The model of the interaction between tourism and landscape (Mikulec & Ntoušková, 2011)

Some of the recommendations presented by this research are within the framework of permanent care and maintenance of natural sites, highlighting the importance of landscape architects and giving sufficient space for public open spaces and landscape planning of the city. As for the case study mentioned in the research, the focus on the landscape, especially within the city borders and outside the city center increases tourism opportunities and makes the place a distinctive natural landmark.

## Conclusions

This study is only the first step in the development of tourism within the city of Amman, whether on the scale of open spaces or historical landscapes, as tourism constitutes an important model for the development of natural, cultural, and economic resources and determines the landscape character within cities. Promoting the idea of tourism routes within the city of Amman is a pioneering and very important experience to make the city an important landmark within the cities of the Middle East. Therefore, cooperation must be strengthened between landscape architects, planners, and local authorities responsible for tourism and planning to ensure the survival and development of the existence of these routes and make them landmarks.

As was shown in this study, landscape elements are an integral part of the process of encouraging tourism; maintaining them and making clear criteria for their existence have a fundamental role in developing services for both residents and visitors.

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## Author contribution

Conceptualization, Irmeili.G.A. and Gürbey A.P; methodology, Irmeili.G.A and Gürbey.A.P; formal analysis, investigation and writing—original draft preparation, Irmeili.G.A ; writing—review and editing, Gürbey.A., All authors have read and agreed to the published version of the manuscript.

## References

- Cianga, N., Popescu, C.A. (2013). Green Spaces And Urban Tourism Development in Craiova Municipality In Romania, *European Journal of Geography*, 4(2): 34- 45
- Council of Europe,(2000). *European Landscape Convention*, Council of Europe, Florence, October 2000

- The Role of Landscape Character in Development Report. (2009).Draft Planning Policy Statement PPS, Department of Local Government and the Environment.  
<https://www.gov.im/media/633695/ppslandscapecharacterindevelopme.pdf>
- Farina.A.(2000). *Landscape Ecology in Action*, Springer Dordrecht,978-94-011-4082-9 , 10.1007/978-94-011-4082-9
- Forman, R.T.T., Godron, M. (1986). *The Ecology of Landscape and Regions*. Land Mosaics. Cambridge Universty Press, United Kingdom, 1-468.
- Gill, S., Handley, J., Ennos, A., & Pauleit, S. (2007). Adapting Cities for Climate Change: The Role of the Green Infrastructure. *Built Environment*, 33(1), 115–133.<https://doi:10.2148/benv.33.1.115>
- Gürbey.A.P., Irmeili.G.A.(2023). Prospects of Ecotourism In Urban Cities And Natural Landscapes Sites, Literature Review, International Scientific Conference “Tourism for Sustainable Future” Veliko 9] Tarnovo/Sofia, Bulgaria
- Irmeili G. A, Çınar H.S.(2021). “Eco-City Analysis In The Framework of Sustainable Planning Case Study in Jordan; IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT),15(12): pp 37-47. 10.9790/2402-1512013747
- Irmeili.G.A, Çağlayan.A.Y. (2022). Visitors’ Experience at Historical Sites in the City of Amman: A Case Study, *Journal of Education, Management and Development Studies*, Vol. 2 No. 1, 10.52631/jemds.v2i1.80
- Jiménez-García, Mercedes, José Ruiz-Chico, and Antonio Rafael Peña-Sánchez. (2020). *Landscape and Tourism: Evolution of Research Topics*; Land 9, no. 12:488. <https://doi.org/10.3390/land9120488>
- Kuo, F. E., Sullivan, W. C., Coley, R. L. and Brunson, L. (1998). ‘Fertile ground for community: inner-city neighborhood common spaces’. *American Journal of Community Psychology*, Vol. 26(6), pp823-851.
- Lenzholzer, S. (2015). *Weather in the City*. Nai010, MIKULEC.J. , NTOUŠKOVÁ.M.,(2011). Landscape and tourism potential in the protected landscape areas, *Agric. Econ. – Czech*, 57, 2011 (6): 272–278.
- Rajčević, V., Tomić, T. M., Medar-Tanjga, I., Trifunović, M., Živak, N., & Petrašević, A. (2023). The Role of Landscape in Sustainable Tourism Development—A Study of Identification and Evaluation of Landscape Qualities of the Vrbanja Basin in Bosnia and Herzegovina. *Sustainability*, 15(7), 6121.
- Salazar, Noel B. (2012). *Tourism Imaginaries: A Conceptual Approach*. *Annals of Tourism Research* 39 (2):863-882
- Swanwick, C . (2002). *Landscape Character Assessment Guidance For England and Scotland Prepared on behalf of The Countryside Agency and Scottish Natural Heritage*. <http://www.countryside.gov.uk/>
- Tudor.C.(2014). *An Approach to Landscape Character Assessment,Natural England*

- UNESCO, WHC. (2011). Recommendation on the historic urban landscape. In Proceedings of the Records of the General Conference 36th Session; UNESCO: Paris, France, Volume 25.  
<http://www.ammancitygis.gov.jo/TOURISM> , accessed date August 2022.
- General Multilingual Environmental Thesaurus. (2021). Touristic route, retrieved September 2023 from <https://www.eionet.europa.eu/>.
- Van Eetvelde, V., Antrop, M., (2009). A stepwise multi-scaled landscape typology and characterisation for trans-regional integration, applied on the federal state of Belgium. *Landsc. Urban Plan.* 91, 160–170.
- Vlès, V., Berdoulay, V., Clarimont, S. (2005). Espaces publics et mise en scène de la ville touristique, Rapport de recherche,  
[http://web.univpau.fr/RECHERCHE/SET/Auteurs/Vles/EPT\\_CNRS5603.pdf](http://web.univpau.fr/RECHERCHE/SET/Auteurs/Vles/EPT_CNRS5603.pdf)
- Wikantiyoso, R. Wikananda, T. Triyosoputri, E. Cahyaningsih, D., Sulaksono, A. (2022). Rural Tourism Destination Spatial Interventions Face the Risk of COVID-19 Infection Case Study: Kampong Boenga Grangsil Tourism Destination, Dampit District, Malang Regency, International review for spatial planning and sustainable development, Vol.10 No.3, 50-64, DOI: [http://dx.doi.org/10.14246/irspsd.10.3\\_50](http://dx.doi.org/10.14246/irspsd.10.3_50)
- Woolley, H., Rose, S., Freedman, J. (2004). The Value of Public Space How high quality parks and public spaces create economic, social and environmental value, CABI Space Design Council, London.
- World Tourism Organization Report. (2022) <https://www.unwto.org/tourism-statistics/tourism-statistics-database> , accessed, August 2023.
- Wray, Meredith, et. al. (2010). Sustainable regional tourism destinations: best practice for management, development and marketing, Australia: CRC.
- Zakariya, K., Haron, R. C., Tukiman, I., Ab. Rahman, S. A., Harun, N. Z. (2020). Landscape Characters For Tourism Routes: Criteria To Attract Special Interest Tourists To The Kuala Selangor – Sabak Bernam Route, *PLANNING MALAYSIA: Journal of the Malaysian Institute of Planners* VOLUME 18 ISSUE 4 , 430 – 441.
- Zárate, M. A. (2016). Paisajes culturales urbanos, oportunidad para la conservación del patrimonio y el turismo sostenible” Urban cultural landscapes, an opportunity for heritage conservation and sustainable tourism”. *Estud. Geogr.* 2016, 77, 693–728.