

## The Environmental Tourism Constituents in Jordan: A Study in Geography of Ecotourism

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### Abstract

*Because of the increased universal importance of ecology: countries all over the world, scientific researchers, establishment's specialists and interests in ecology efforts, run forward returning Eco balance through ecotourism, so this research aimed to identify and analyze the divisions of environment in Jordan, as, was recommend by Stockholm Conference. To conclude the most important basics of eco-tourism that dominant in the environment of each of them, it shapes important element in attractive tourisms and the aimed eco-balance. To achieve the purposes of the study, researcher followed analytical approach and field visits to identify the basics of the environment; this is supported in eighteen figures . The study has many results from the most important of them: ecotourism simplified the real future for tourism in Jordan. So, the Jordanian Tourism Activation Body did its efforts to promote this type of tourism in various areas in the world specially the region of the Arab Gulf Union. The study put many recommendations: widening in constructing regional reservations that sited between Al-ghor and the mountains (semi- ghor environment), to decrease pressures on natural resources in this environment.*

**Key words:** environment, natural environment, Environmental Constituents, ecotourism, tourism activities.

### 1. Introduction

We can consider the science of ecology from the modern sciences, we cannot say the Science of Ecology and the term Environment started in scattering in the sciences fields from the second half of the twentieth century, as with the global interest in ecology and it's subjects related to it, become necessary in all over the world treating with Environmental Constituents as values accompanied with the Socio-Political values beside economic values that is restricted in achieving them reverse, the statistics of Public Opinion indicated that ecology subjects have the first level among other subjects. The researcher depended on dividing the ecology basics on the division operation mentioned in the recommendations of Stockholm Conference (1972) for the elements of main environments:

([www.wildlife-pal.org/environment.htm](http://www.wildlife-pal.org/environment.htm))

#### – Natural Environment:

In the four covered : Lithosphere, hydrosphere, atmosphere, and biosphere .

Biological Environment: include the individual and his family and society beside living creatures in the surrounding environment. As mentioned above, we can consider Biological Environment as a part from Natural Environment.

#### – Socio- Environment (Civilized environment) it is a frame from the relations that restricted the relation of human life with others, this frame from relations, it was considered the base in organizes any group in any committee. Human being created along his long trip in life civilized environment to help him in different matters in his life so he built high buildings on the earth and received space easily.

#### – The elements of civilized environment restricted in two sides: the materiality side i.e. housing, clothing, transporting, traditions, ideas and his culture. And un materialistic side lines: human values, habitations, traditions, ideas and human culture. It the environment is the frame living inside it human being, get his main needs in to survive, beside, understanding environment in the right way in all its elements and mutual reactions, to do in serious ways to protect the environment and improve it to get his income in his job and perform his relations without disrupting or damaging.

**1:1 the Region of the Study**

The region of study resembled in Jordan that was cited in the southern west of Asia between meridians 34° and 52° to 39° in the east and between the two latitudes 29° and 17' to 33° and 23' in the north.(figs. 1 and 2)

**1:2 the Problem of the Study, Reasons and Importance**

When the human being had high levels of performing on land passed many stages: collecting, hunting, grazing, agriculture, industry trade and finally the revolution of information. These stages human being passed them in different times and different ways (like Jordan) to get rid of many resources accompanied with it many ecological problems different in their complexity to stimulate the kindness, mercifulness and the fear and save of human being from the depletion of these resources from one side and from the danger of random treating of human being with the components of the environment from the other side. To make some scientists, Organizing establishments, parties, associations, committees beside corporations shout on all their voice calling for restrict these problems and protect the environment, as many international conferences were held like (Global Summit) to resolve these problems:

From all mentioned above became the importance of this study to answer on many questions from them:

- What is the meaning of environment?
- What are the factors of tourism attracting in Jordanian environment?
- What are the most important of Environmental Tourism Constituents (natural) in Jordan?
- What are the most important conclusions and recommendations in this study?

**1:3 General Aim of the Study:**

This research aimed to study and analyze the types of environment in Jordan and identify the most important Environmental Constituents which resembled the elements of attractive tourists in Jordan in each type of them.

**1:4 Methodology of the Study:**

To achieve the main general principle and branched aims in this study. The researcher depended on the analytical approach to receive to every attractive in tourism elements which we may expand it from the main Environmental Constituents in general, depending on the general divisions to the environment which depend on Stockholm Conference in 1972. To support this approach the researcher depended on field studies to make the research contained eighteen figures.

**1:5 Main concepts and terms in the study****1:5:1 environment**

The definitions of environment are many and differ because of the appearing of many types and shapes beside its continents, the main environmental concepts:

- Identified by the German scientist Earnest Haeckel in 1866 as: the science which study the relations of living creatures with the media they live in it. This science is considered in the survival creatures, their feedings, the way they found on it in complex committees or housing committees or nations. It included, also, the study of unloving factors like weather, (the degree of heat or cold, humidity, rays, and gases). And the physical and chemical characteristics for the land water and ear.  
(<http://www.iid-alraid.de/arabisch/abwab/Ecology/Ecol.htm>)
- Arab Planning Institute in Kuwait identified environment: the media that live in it the human being and get from it the elements and basics its main life, to perform in it his different activities. (Arab Planning Institute, 2006).

Upon these we can identify environment: everything that may surrounding him from unloving things, plants, or animals, resembled in the surface of the earth i.e. mountains, valleys, wide spread land, rocks, soil, the elements of the climate, and different resources with different references, it is environment, god created it in very well way in quantity and quality and it's function. God says in Holy Quran "it is created by God who created everything in very well way" (sorat –Al-namel verse: 88).

### 1:5:2 Environmental Balance

It is the way the components and elements of the natural environment in its case without changing, ([http.wp://aikipedia.org/wiki](http://aikipedia.org/wiki)). I.e. the capability of the ecosystem to return to its origin and in first case after any change happened to it without any basic change in its components. (Gharaybey, 2007).

The International Box for Environment identified it: "traveling to natural sites did not have any pollution and its Eco balance did not exposed to any change to please in its sites, plants, wild animals, and its civilization in present and past,"

### 2. Tourist attraction factors in the Jordanian environment

Natural is considered the natural containers which happened in it all reactions, activities, mutual effects between human being and nature, and shape the main basic elements for eco-tourism (natural or esthetic). We can imagine the main and most important attractive tourism factors which appeared in Jordanian Environment:

**2:1 geographically location (continental and astronomical):** Jordan has very important site: it is locate near the center of the old world; in the southern west corner in Asia in moderate climate places gave it different levels: resulted in different eco-tourism basics in the environment.

**2:2 construction and geology:** or rocks constructing resembled in many large quantity in the types of rocks. Land layers and rocks discoveries. Thus, Jordan is related to many geological periods began in the pre-Camparian period passing in periods: Paliozoic (old), Mezozoic (middle), cenozoic (modern), (Bender, 1974). This geological difference gained it the high value (fig. 3) beside it has unique site in the Middle East to find in Jordan the lowest point on the earth it is (Dead Sea). There are many different mineral springs which were famous in the eco-tourism in general. Especially geological tourism: this kind of tourism became acceptable for many tourists, challengers and natural enthusiasm discoverers.

**2:3 Geomorphology:** we can find in Jordan three large terrains regions: Al-ghor, Mountains and Jordanian Desert (fig. 4). Wind and water erosion factors played important role in finding many types of terrains make tourists like them: grooves, canyons, sand dunes, rocky missives beside other types from enhancing tourist factors who search for pleasure and nature (figs. 5 and 6) as, we can see many tourism and natural places in Jordan. (Jordan Desert –Albadia- in general and Wadi Rumm specially) many places located in: the Jordan Hill with grooves going forward Jordanian Al-ghor (where located the lowest place in the world).

**2:4 Climate elements:** there are many elements like hot weather, rains, wind, humidity, pressure, vibrations and sunny weather all these elements working together to form group of tourist attracting natural Constituents, from here appeared the tourism of summer resorts in the mountains of Ajloun and AL-Balqa, and the tourism of winter resorts, in the regions of Jordanian Al-ghor searching for cold and warm subsequently.

**2:5 Water and its Shapes:** here appeared many shapes like seas, lakes, rivers, stores, dams, artificial and natural pools, and renewal groundwater and fossils. We can consider the water as the base for life, and the base for all human activities in front of them tourism, here we can find shore resorts and manipulation tourism in the mineral water. In Jordan, we can find, Aqaba city beside the shore of Dead Sea that is the biggest tourism investment accumulation, as sea shores (fig.7).

All these natural five basics, which mentioned above, are considered main basics to attract for nature tourism (environment or enthusiasm) in Jordan.

### 3. Environmental Tourism Constituents (natural) in Jordan

Jordan has many geographical and natural bases and characteristics made him tourism country in all the seasons of the year. Jordan makes available all the aims which the tourists search for. We can find in Jordan winter terrains and summer terrains, natural springs, forests, and deserts (Bawadi) and shores. Thus, Jordanian environment is rich and has many types. Jordan has rich natural collected between Al-ghor, rural areas, desert (Badia), we can sum desert with green fields according to this diversity in it life differ also, living creatures, plants and animals.

From general study for the basics of natural geography in Jordan (Albohairy, 1973) we can find that its land distributed among six large natural environments among them two natural environments: wild life environment, (instinct), and the environment of uncovered rocks (which has not constrain of covers from the plants to the soil). This study summarized these plants and the tourism activities which performed in Jordan. (Gharaybeh, 2007).

**3:1 Al-ghor Environment:** shape approximately 5.6% from the area of Jordan. It is the low land, expanded from Al-baqora in the north to Aqaba in south. This shapes in general Jordanian winter – Terries. We can find in it the following geographical milestones:

- a- Jordan River (Al-sharea'a): it has 110 Km in long at the side placed Al-zour flats and at the east Al-ghor Flats which shaped Jordanian Feeding container from fruits and vegetables, at the south we can find baptism site (place for Christian religion tourism) in the region of Al-kharar Valley, here Jesus Stood in front of the prophet Yahea (Peace Upon Him) to intend with water and appeared from this place the start of his massage to all humans, (tourism Board, 2002) (fig. 8).
- b- Dead Sea: it is the lowest piece of land on the earth, it has 70 Km in length, and it is wideness is 10-16 Km. Dead SEA recently represented to speed abatement. It has high ratio of salts received to 33%, from the most famous treatment tourism places and in the Winter Terrains, on its east shore advanced tourism constructing serve these two dimensions. (fig. 9)
- c- Wadi –Arabah: it has 150 Km in length it receives between the Dead Sea and Red Sea.

**3:2 Semi Al-Ghor Environment:** it is the land located between Al-ghor in the west and Mountains in the East. It is higher than sea surface more than 600 m; it is environment owns natural characteristics of Al-ghor and Mountains together. In this cite we can find a decimal of ancient tourism places like (Gharaybeh, 1998) Umm Qayes (Jadara), Apella, Karkamah, Al-sberah and Hneedeh, Hajejeh, Fiqaris, Amta and in this region found two Decapolis towns (Roman and Greek): Gadara, and Pella (figs. 10 and 11).

**3:3 Mountains' Environment:** it shapes approximately 5.8% from the area of the Kingdom. In this area placed most the Jordanian cities (Irbid, Ajloun, Jarash, Al-salt, Al-karak, Al-tafela and others) these mountains divided into Terrain units differ in the height to shape at all the Jordanian Summer resorts, from the most important mountains: Irbid and Ajloun Mountains (the peak in Um Al Daraj 1247m) Al-balqa Mountains (the peak in Joshua Mountain 1097m) Muab and Al-sharah Mountains (the peak in Baqer Mountain 1952m) also in them were found many tourism places in the front castles like Ajloun Castle, Al-karak, Al-shoubak (figs. 12 and 13).

**3:4 the environment of Interior Flats:** they are expanded to the mountains, as they are flat hells approximately; it shapes about 11% from the area of the Kingdom and found in three places:

- a- The northern flats surrounding Irbid, Al-ramtha, Al-mafraq, Jerash, Beit Ras and Al-hussun. There ancient name is Ahra'a Roma (the stores of wheat)
- b- Middle flats and expand around Amman, Al-zarqa and Madaba Cities.
- c- Southern Flats expanded around Al-karak, and Al-rabah Cities and they are flat Pockets through the mountains region like Al-desah Region.
- d- This environment well known in Agricultural Tourism phenomena, also found in them the ancient tourism because they contain five Decapolis Cities (Shuumacher, 1890): Arabela (Irbid), Jerasa (Jerash), Capitoliias (Biet Raas), Dion (Al-hussun) and Philadelphia (Amman). Beside many more ancient Cities like: Madaba, Deeben and Kerak. (fig. 14), Al-khezana, Al-mushata, Hamam Al-sarah, Al-azraq, and Al-mowqer (figs. 15 and 16).

**3:5 Desert Environment (Al-badia):** shapes approximately 77.4% from the general area of the Kingdom. They have not any Main Population Accumulations; spread in it many kinds of desert tourism activities and the tourism of instinct reservations (ecological) beside the traditional ancient tourism. Al-badia Environment well known in founding of many oasis's and reservations: Roweshid, Al-safawi, Al-jafor, Al-shomari Reservation, and Umayyad Ancient Palaces: Al-halabat, Amrah, Al-tobah.

**3:6 Coastal Environment (Aqaba Gulf):** it is natural expanding to Read Sea where found tourism Aqaba City and it is the main Jordanian Port, it has diverse aquatic creatures in it like: fish and Corals and it has diverse in Aqua Sports like diving and plunge.

Over to all mentioned above from environments we can find in Jordan natural environments from plants and animals. So Jordan attracted to the importance of this side in the eco-tourism to construct in them Natural Reservations to reserve the rare species from wild animals from extinction, the most important reservations in Jordan:(Gharaybeh, 2012)(fig.17).

- a. Dana reservation (at the southern part of Jordan) in Al-tafelah City.
- b. Al-shomari Reservation (in the east Desert): near Al-azraq
- c. Al-moujib Reservation: (on the east shore of Dead Sea).
- d. Ajloun Reservation (north of Jordan) near Ajloun City.
- e. Al-azraq Reservation (east desert) in Al-zzraq Oasis.

Rocky Environment (uncovered Rocks): from the environments that attracted the attention of the tourist, because of the diversity of Geomorphology phenomena: rocky mountains, dry valleys, flat Rockies, grooves make in there sum place for attracting tourists attention and for the interests in adventure and climbing high mountains. This environment found in the previous environments and in differ degrees but it become wider in the south of Jordan, the site become part of the Asian Arab Shell, its surface are without any from any soil or plants. The flower tourism city Petra is considered a model for the uncovered rocky environment and because of the beauty of this city and natural magnificent of it was awarded in the second rank to become one of the World Seven Wonders in a festival hold in Lisbon City (capital of Portugal) at the evening of Saturday 7/7/2007. (fig. 18).

#### **4. Jordan's tourism income and forms of tourism activities:**

(<http://www.mota.gov.jo/ar>)

- In spite the small size of the area in Jordan but it has large environmental diverse, Jordan used that to invest these environments in tourism so GPP from tourism increased and it is in continuous increasing as the tourism income increased 18% approximately in the period January to November in 2012 and the income of the Kingdom increased from tourism to three billions \$ (2.1 Billion JOD) comparing with 2.5 pillion \$ (1.8 billion JOD), number of tourists received 7 million tourists and the number of tourists who spent more than one day are 3.88 million scattering as follow:

- 19.2% Arab Gulf Union
- 27.6% foreign countries.
- 24.5% Arab countries
- 28.7 Jordanians who stayed outside Jordan.

Activities performed by these tourisms:

- 1-Visiting ancient places (ancient places tourism).
- 2- Visiting religion places (religious tourism).
- 3-Treatment in mineral water and private hospitals and private sector (medical-tourism).
- 4-Studying in higher stages, conferences and international seminars (scientific tourism).
- 5-Performing tourism ecological and natural environmental activities in many places from previous mentioned environments places (eco-natural environment tourism).

The researcher restricted these activities:

- Wild animals and birds hunting in Jordanian desert
- Visiting country reservations which mentioned above.
- Aqua sports and diving for coral in Aqaba Gulf
- Thinking in nature and discover what it contains in AL-ghor Region, Semi Al-ghor region mountains and deserts environments.
- Climbing mountains in Al-sharah Mountain.
- Riding Horses and camels in Ajloun and Al-balqa'a forests.
- Camping in the site called golden triangle (Petra, Wadi Rum, Aqaba Gulf).
- Traveling in wild life and desert tourisms in Al-harrah, Al-hamad and Al-hasmi in Jordan Badia (desert).
- Drawing nature in different Jordanian cultures.
- Visiting places to research in ancient places.

## 5. Recommendations and findings

### 5:1 findings

1. Environmental concepts diverse and differed because of differences in the natural, human and biological components, according, and the basics are many and diverse and the eco-values that concluded from this concept are many.
2. Environmental Constituents are divided in nature Basics assured on the importance of the parts that composed for natural environment that God awarded them to human being, so, we must treat them and invest them in modeling shape and the human being components assured on the importance and the importance of human being treating in modeling ways and with minimal degree of pollution.
3. When individuals treating with the environment live in a large organization from branched ecological basics and must treat them carefully because they shaped important basics in tourism attraction, tourism become, in general, and ecotourism.
4. Jordan considered, in spite of, of its small size (89.297 square Kilometers) and it is from the countries that it has large diverse and magnificent diverse. You can find Al-ghor Environment (lands under the surface of sea), Semi-ghor Environment, Mountains Environment, Al-badia Environment (semi-desert), flats environment, and shores environment.
5. Jordan could invest its environments with a shape suitable with its nature; they constructed reservations, built tourism constructions and at the same time increase the understanding for ecology among its population.
6. Eco- tourism resembled the real future for tourism in Jordan, so, Jordanian tourism Activation Body spent more efforts to promote this kind of tourism. In many countries in the world and especially in Arab Gulf Area.
7. It may be said that that all eco-tourism international activities were found in Jordan, this large diverse in Jordanian Environments which rich in different ancient places resembled the Jordanian nature to shape in sum strong factors in tourism attracting.
8. Shapes of Jordanian eco-tourism depending on the nature basics:
  - Winter resort tourism in Jordanian Al-ghor, Dead Sea and Aqaba.
  - Summer resort of Jordanian mountains: Debeen, Ajloun, Eshtafena and Zay.
  - Medical tourism in the places of mineral water in Dead Sea, Afra and Maen Baths, North Shouna, and Abu Dableh (east of Apella).
  - Desert tourism in Jordanian Badia in Wadi Rumm (Wadi AlQamar), many oases spread all over the desert beside the places of collected sands in Al-hasmi Environment. (South of Jordan) pleased in desert natural views (sun set) in Al-hamad Environment and Al-harrah (Jordan).
  - Diving tourism, skating, aqua tourism in Aqaba Gulf.
  - Adventure tourism, traveling and hunting in all mentioned environments.
  - Climbing mountains tourism.
  - Instinct accumulation tourism and watching birds and wild life.
  - Cultural tourism (civilized culture), resembled in large number of ancient places and historical places which scattering all over in the previous natural environments, wither they are ancient cities (Jadara, Jerash, Petra, and others) or ancient castles (Ajloun, Al-karak and Al-Shoubak).

### 5:2 Recommendations

1. Making efforts to increase ecological understanding and ecotourism values among populations. Because it has effects on Eco balance and limiting from the danger of pollution through educational programs in the universities and schools, holding seminars and conferences, using modern mass media ways that were wide spread. Hanging notes all over the country, deepening the culture of reserving the natural environment, and refusing negative acts to achieve lasting natural environments which consider the main base for ecotourism.
2. Constructing buildings and masonry ecotourism which may be considered suitable for the privacy of tourism, to achieve long time tourism in model using and good treatment with natural resources, to encourage using eco materials (Recycling), beside all development programs built on this eco base.
3. Widening in constructing instinct reservations in transmitting environment that located between AL-ghor and mountains (Semi- Al-ghor Environment) to decrease from population pressures on the natural resources in this environment.

4. Limiting the capacity abilities for every ecotourism place and emphasis these continents for these place sin portraits because there is afraid from negative effects from tourists on the natures and what the tourism place contained from other elements: soil and interior traffic Medias.
5. Neighboring local society population with natural reservations must be fused and improve their living ways and understand them and make them know there responsibilities ecologically and in tourism, to encourage local handicrafts among them. Holding cultural festivals to know there life style among these populations besides encouraging all styles that may be shape attracting elements for tourists.
6. Enactment special legislations and regulations to protect the environment from pollution, and constructing special managements for managerial searching to measure the eco effects to support these legislations.

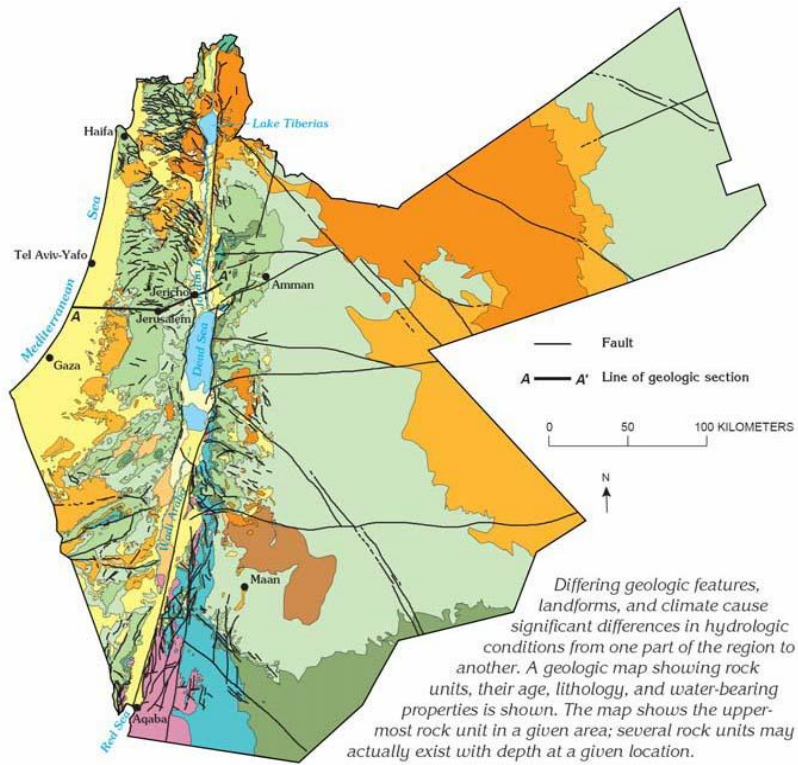


Fig.(1) Geographical Location of Jordan



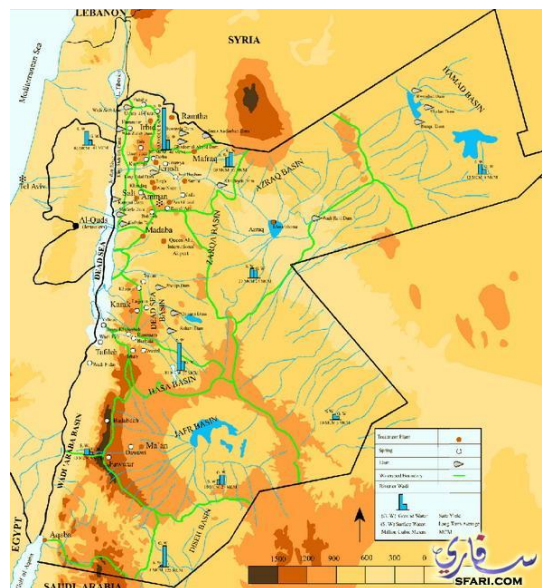
Fig.(2) Jordan-main cities





Ref: [exact-me.org/overview/arabic/p11.htm](http://exact-me.org/overview/arabic/p11.htm)

**Fig. (3) Geology of Jordan**



**Fig.(4) Relief of Jordan**





**fig(5) Wadi Rumm (Desert Tourism)**



**Fig. (6) sand Tourism in al-Badia Environment**



**Fig.(7) The coast of Aqaba**



**Fig.(8)baptism site- jordan River**



**Fig.(9) The dead Sea(The lowest spot in the world)**



**Fig.(10) ruins of Gadara**



**Fig.(11) Ruins of pella**



**Fig.(12) Ajloun Castle(Mountainous environment)**



**Fig (13) Al- Karak castle (Mountainous environment )**





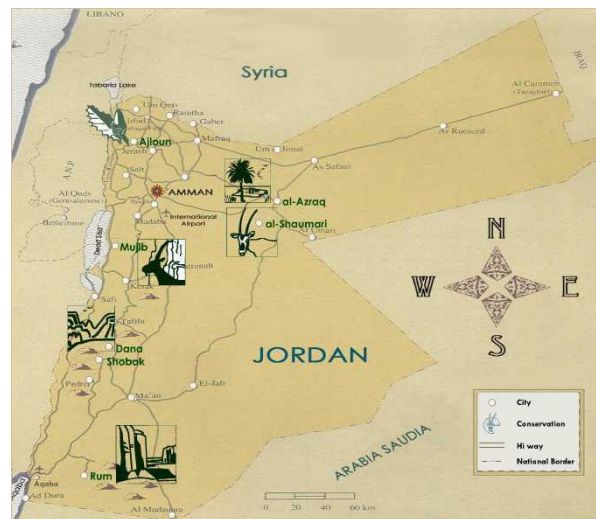
**Fig.(14)The ancient city of Jerash (Decapolis)**



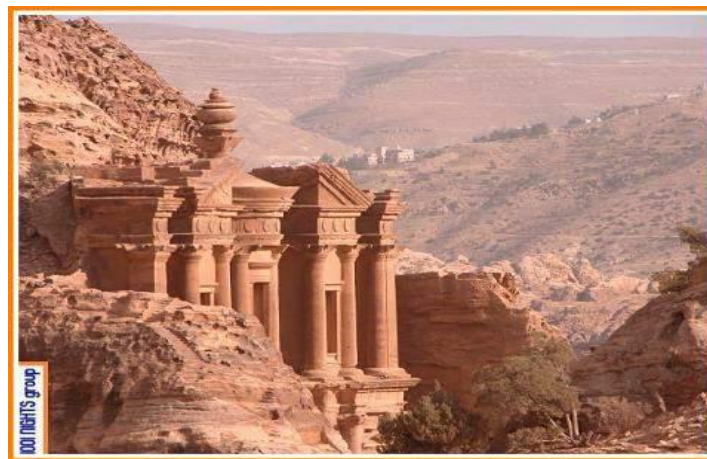
**Fig (15) QasrA-I hallabat( al-Badia Environment)**



**Fig.(16)Qasr Amra( al-Badia Environment )**



**Fig.(17) Natural Reserves**



**Fig.(18) Pink rocky city of Petra (Environment rocky)**

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