

ASERS

# Journal of Environmental Management and Tourism

Quarterly

Volume XI

Issue 6(46)

Fall 2020

ISSN 2068 – 7729

Journal DOI

<https://doi.org/10.14505/jemt>

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**Journal of Environmental Management and Tourism** is an interdisciplinary research journal, aimed to publish articles and original research papers that should contribute to the development of both experimental and theoretical nature in the field of Environmental Management and Tourism Sciences.

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Authors are encouraged to submit high quality, original works that discuss the latest developments in environmental management research and application with the certain scope to share experiences and research findings and to stimulate more ideas and useful insights regarding current best-practices and future directions in environmental management.

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<b>Expected publication date:</b>	December 2020
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DOI: [https://doi.org/10.14505/jemt.v11.6\(46\).23](https://doi.org/10.14505/jemt.v11.6(46).23)

## Geological Sites as a Safe Resort for Post-COVID-19 Tourism: The Case of Al Jabal Al Akhdar, Oman

Galal M. H. AFIFI

Faculty of Arts and Social Sciences, Sultan Qaboos University, Oman

Faculty of Tourism and Hotels, Helwan University, Egypt

[galal@squ.edu.om](mailto:galal@squ.edu.om)

Maged. M. F. NEGM

Faculty of Tourism and Hotels, Helwan University, Egypt

[magednegm2@yahoo.com](mailto:magednegm2@yahoo.com)

### Suggested Citation:

Affi, G. M. H., Negm, M. M. F. (2020). Geological Sites as a Safe Resort for Post-COVID-19 Tourism: The Case of Al Jabal Al Akhdar, Oman. *Journal of Environmental Management and Tourism*, (Volume XI, Fall), 6(46): 1520 - 1336. DOI:[10.14505/jemt.v11.6\(46\).23](https://doi.org/10.14505/jemt.v11.6(46).23)

### Article's History:

Received 13<sup>th</sup> of July 2020; Received in revised form 31<sup>st</sup> of July 2020; Accepted 19<sup>th</sup> of August 2020; Published 11<sup>th</sup> of September 2020. Copyright © 2020 by ASERS® Publishing. All rights reserved.

### Abstract

COVID-19 is undoubtedly an unprecedented crisis that hits tourism heavily. To date, it is unconfirmed when tourism businesses can reopen again. However, official and unofficial tourism entities proclaim that tourism should resume as soon to save the massive investments and the millions of jobs in this sector. It is also agreed that Post-COVID-19 tourism will significantly differ from the Pre-COVID-19 era, where both tourists' characteristics and tourist product features will witness major changes. In this context, this research suggests geo-tourism as a potential safe resort for the Omani tourism business, assuming that the features of this type of tourism will meet the requirements of Post-COVID-19 tourism. The research investigates Al Jabal Al Akhdar as a model case for this assumption.

**Keywords:** geo-tourism; tourism & COVID-19; Post-COVID-19; geo-sites management; Oman.

**JEL Classification:** D81; I15, L83; Q56; Z32.

### Introduction

Tourism is one of the world's fastest-growing sectors, where many countries have recognized its substantial impacts. One of these countries is Oman, which has been paying incremental attention to utilize its tourism capabilities for accomplishing several goals, mainly economic; as with the global volatility in the petroleum trade and the expected reduction in its production, Oman has recently started encouraging tourism as a significant future source of income. Revising research and reports of national and international institutions (*e.g.*, World Tourism and Travel Council. 2014; National Centre for Statistics & Information. 2015; World Tourism and Travel Council. 2020; Affi and Nashwa 2014) discloses that Oman has been successfully developing its tourism business for some years now, where the number of international arrivals increased from 0.5 million in 2004 to more than 3 million in 2018, which perfectly meets the earlier expectations of "Oman vision 2020". In the same year, tourism achieved about US\$ 2.45 billion, equivalent to 2.9% of the Omani GDP (Ministry of Tourism. 2019).

Believing in the importance of tourism for the country's future, Oman took several significant steps. For instance, in 2016, Oman Cabinet approved Oman tourism strategy 2040 to achieve five principal aims: (1) creating 500,000 new job opportunities, (2) attracting 19 billion OMR investments, (3) increasing tourism



contribution to the country GDP to 6-10%, (4) creating 1200 new SMEs, and (5) employing tourism as a vehicle to strengthen the local pride and identity internationally (Ministry of Tourism. 2016). This approval was followed up by establishing the National Program for Enhancing Economic Diversification (Tanfeedh), a government initiative to coordinate between manufacturing, tourism, transport & logistics, mining, and fisheries to ensure diversifying the national income resources (Tanfeedh 2020).

At this point, it may worth mentioning that Oman has always been keen on being perceived as a not-for-mass-tourism destination. Accordingly, Omani tourism plans and strategies have been typically focusing on attracting niche tourism (*e.g.*, eco-tourism and geo-tourism) and high spender segments, as well as emphasizing on natural attractions as a competitive advantage (Ministry of Tourism. 2011; Ministry of Tourism. 2020). Thus, both the Omani Tourism Vision 2020 and Tourism Strategy 2040 affirm that sustaining ecological and geological features is a top priority.

## 1. Literature Review

### 1.1 Corona Virus (COVID-19)

On December 31, 2019, the World Health Organization (hereafter WHO) Country Office in the People's Republic of China picked up a media statement by the Wuhan Municipal Health Commission from their website on cases of "viral pneumonia" in Wuhan, People's Republic of China. On January 4, 2020, the WHO tweeted that there was a cluster of pneumonia cases – with no deaths – in Wuhan, and that investigations to identify the cause were underway. Then on January 9, it was the WHO reported for the first time that a novel coronavirus causes the outbreak. On January 13, Thailand reported the first case outside China, which was followed up by a WHO announcement that COVID-19 could potentially transmit from human-to-human (<https://www.who.int/news-room/detail/29-06-2020-covidtimeline>). Afterward, reports started to accelerate from different countries, announcing cases on their territories, including the announcement of the first confirmed case in the USA on January 21, Europe (France) on January 24, and the Middle East (UAE) on January 29. By the end of January, 98 cases were confirmed without any death in 18 countries outside China. On February 11, WHO announced that the disease caused by the novel coronavirus would be named COVID-19 (<https://www.who.int/news-room/detail/29-06-2020-covidtimeline>).

March 7 marks the number of confirmed COVID-19 cases surpassing 100,000 persons globally. This was followed by a shocking WHO announcement that by the alarming levels of spread, and severity of the inactions, COVID-19 could be characterized as a pandemic. Then on April 4, WHO reported that over one million cases of COVID-19 had been confirmed worldwide, a more than tenfold increase in less than a month (<https://www.who.int/news-room/detail/29-06-2020-covidtimeline>). By April 20, 100% of the countries were applying some travel restrictions (<https://www.unwto.org/news/covid-19-travel-restrictions>) to mark the moment of hitting the tourism sector with what is now considered the harshest crises ever to hit tourism. To date (July 15, 2020), the number of confirmed cases passes the barrier of 13.5 million, with a daily average of almost 200,000 new cases during the last week.

Thus, it could be claimed that the COVID-19 pandemic has triggered an unprecedented crisis in tourism, given the immediate and immense damage to the sector (<https://tinyurl.com/y5tlf3cr>). Tourism has, of course, faced a lot of challenges and crises (*e.g.*, terrorism attacks, regional wars, economic crises) (Brent and Jiang 2019); none of them have ever resulted in such a catastrophic situation that tourism is experiencing today. After a 2% monthly growth in January 2020, COVID-19 caused a 22% fall in international tourist arrivals during the first quarter of 2020 (<https://www.unwto.org/news/covid-19-travel-restrictions>). According to three possible future scenarios (*i.e.*, opening up in early July, September or December 2020), the year 2020 is expected to conclude to 850 million to 1.1 billion fewer international tourist arrivals, US\$ 910 billion to US\$ 1.2 trillion loss in tourism revenues, and putting 100 to 120 million direct tourism jobs at risk (<https://www.unwto.org/news/covid-19-travel-restrictions>). This estimation is even more worrying, considering that tourism is a leading economic catalyst for several other sectors (<https://tinyurl.com/y9v6luhu>). These impacts are by far the severest since the start of the UNWTO records in 1950.

Unfortunately, UNWTO reports <https://www.unwto.org/impact-assessment-of-the-covid-19-outbreak-on-international-tourism> indicate that there is no guarantee that 2021 will regain the numbers of 2019 as several reasons unify to obstruct a swift recovery. First, the uncertainty about the upcoming quarantine measures, travel restrictions, and border closures. Second, the worldwide economic recession and its related negative impacts, especially on job loss. Third, the psychological factor, as post-crisis time is usually associated with hesitation and fear of traveling. Fourth, the crisis facing supporting sectors such as airlines and the anticipated increase in the costs of air transportation. Accordingly, UNWTO (<https://www.unwto.org/taxonomy/term/347>) argues that tourism

will go through a long-term gradual recovery, which may take between two to five years. During that period, tourism will be dramatically reformed and launched into a different era, which is widely known now as the “new normal tourism”, where some of the features of this new era have already been defined and widely accepted, whereas more efforts are still going on to portray a full image of it.

Focusing on the traveling distance, (<https://tinyurl.com/y5tlf3cr>) believes that domestic tourism will recover faster than international tourism, offering a modest chance for initiating business recovery, particularly in countries, regions, and cities where the sector supports many jobs and businesses. Meanwhile, international tourism within specific geographic regions (e.g., the European Union) will start rebounding. Experts also assume that long-distance traveling for leisure purposes will be limited due to typical post-crisis fears. It could also be claimed that tourists' motivations will be mostly confined to specific motives, including visiting relatives, medical and business purposes as the foremost reason for traveling. These motives could be ironically-enough gathered under the title “*semi-obligatory tourism purposes*”. Safety measurements, including social-distancing and limited interaction, will also be key influencers in the “new normal tourism” era. Accordingly, it is expected that tourism types that classically (1) attract or associate with a small number of travelers and (2) include activities taking place in wide-open spaces, such as deserts, will be preferred. The destination health standard and commitment to safety regulations will surely be considered. In other words, tourism may tend to what could be named “*isolated tourism*”. Thus, it could be concluded that types such as geo-tourism and eco-tourism will most probably find a steady foothold in the coming years. As well, locations such as deserts, isolated coasts or islands, mountains, will have a significant appeal.

## 1.2 Geological Tourism

Geo-tourism is a terminology, which has been coined to reflect the rapid growth of tourism activities in geological sites. The term “*geo-tourism*” was introduced in 2002 by the *Travel Industry of America and National Geographic Traveler Magazine*, as a response to the need for a more encompassing concept than eco-tourism or sustainable tourism (<https://tinyurl.com/y8ku7nny>). “*Geo-tourism*” was initially understood, especially by geologists, as “*tourism surrounding geological attractions and destinations*” (Heggie 2009, 257). Nowadays, “*geo-tourism*” is used, especially in British Commonwealth countries, to refer explicitly to geological tourism, “*focused on landforms, mines and quarries, caves, rock formations, volcanoes, and so forth*” (Ergasheva 2010). On the other side of the Atlantic, a significant travel survey, polling about 55 million Americans, defines “*geo-tourism*” as “*tourism that sustains or enhances the geographical character of a place, its environment, culture, aesthetics, heritage, and the wellbeing of its residents*” (Robinson 2008, 3). This late definition could be seen in practice as many geological tourism projects (e.g., Yellowstone Park in the USA, Arco Naturale in Italy) often seek to incorporate cultural, historical and natural aspects of a place.

Different researchers attempted to set geo-tourism within various tourism schemes. For instance, Hose (2007) categorizes geo-tourism as a form of sustainable niche tourism, while Hall and Weiler (1992) assume it may fit more as a subcategory of special interest tourism. Also, linking geo-tourism to eco-tourism is widely accepted. In this context, Heggie (Heggie 2009, 257) records that “*much like eco-tourism, geo-tourism incorporates the concept of sustainable tourism in that destinations should remain unspoiled for future generations. It also embraces the principle that tourism revenue should promote conservation while allowing for ways to protect tourist destinations character*”. Confirming the same concept, the Geological Survey of Norway (2010) defines geo-tourism as “*tourism that sustains or enhances the geographical character of a place - its environment, culture, aesthetics, heritage, and the wellbeing of its residents*”. The same definition was lately accepted by the National Geographic Society of America as well as several other researchers (e.g., Robinson 2008).

Despite being a relatively new concept in tourism, geo-tourism expanded rapidly within the last two decades. This expansion is evident in four indications. First, the growing number of countries currently developing and promoting their geo-sites (e.g., Egypt, Oman, Iceland, Jordan, Australia, and Namibia), which could be noted in the escalating number of requests recently proposed to the UNESCO for inserting new geo-sites in the World Heritage List. In this context, revising the UNESCO World Heritage List reveals that the number of registered geo-sites has increased from 20 sites in 2004 to 93 in 2020. The list includes foremost geo-sites such as Grand Canyon, Hawaii Volcanoes, Mammoth Cave, and Yellowstone Park (USA), Rock Mountain and Dinosaur Provincial Parks (Canada), the Great Barrier Reef, and Shark Bay (Australia), Scocjan Caves (Slovenia), Aeolian Islands (Italy), Giant's Causeway (UK) as well as geo-sites in countries like Slovakia, Hungary, Bulgaria, Russia, Switzerland, Germany, Romania, Malaysia, and China (<https://tinyurl.com/ycz7bnpg>).

Second, although it is currently difficult to provide an approximate estimation of the number of geo-tourists as geo-tourism could be associated with other tourism forms, it could be claimed that there is an increasing demand for geo-tourism. For instance, in 2019, 5.97 million tourists visited the Grand Canyon (<https://tinyurl.com/y7v9pu64>), 1.1 million visited Hawaii Volcanoes National Park (<https://tinyurl.com/ybxleldx>); and almost 1.68 million visited the Death Valley (<https://tinyurl.com/y7lcolyq>). Notably, these geo-sites have all been achieving continuous growth over the last ten years. In Australia, a survey conducted in 2007 reveals that visiting national parks comes as the top natural activity of international tourists (Tourism Research Australia. 2007. *International and national visitor surveys*).

Third, geological societies cannot be described as new entities as many of them were established during the 19th century (*e.g.*, British Geological Society in 1807; American Geological Society in 1888; South African Geological Society in 1895). However, it could be noted that both old and new geological societies have recently been more involved in geo-tourism, mostly as consultants for geo-tourism destinations. This may refer to increasing organizational awareness towards geo-tourism (See: Global Network of National Geoparks; the UK Geological Society).

Fourth, the escalating number of geological agreements and projects, which have been recently assigned. For instance, aiming to innovate the tourism sector, and conserve the environment, heritage, and local culture, Norway announced the National Geographic's Geo-Tourism charter in 2005 (<https://tinyurl.com/y8vfdg8l>). As well, the number of geo-tourism conventions organized all over the world has rapidly increased within the last few years (*e.g.*, the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Global Geo-Tourism Conferences in Australia 2008, Malaysia 2009 and Oman 2011).

A vital question should, therefore, arise, "*why did geo-tourism expand over the last period?*" Eder and Patzak (2004) deem that the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992 (*i.e.*, the Earth Summit) played a fundamental role in acknowledging environmental protection as a top priority. Accordingly, the Summit inspired not only countries to set environment conservation and enhancement strategies but also ordinary people to communicate in a more caring and intimate manner with environmental elements. Thus, it could be claimed that ecological awareness has been a critical element in motivating tourists to involve more in environmental activities such as eco and geo-tourism, whether to (1) show their appreciation and admiration for the environment, (2) financially and physically support endangered features, or (3) enjoy these features before being extinct or destroyed.

In the same context, researchers such as Sigurdsson and Lopes-Gautier (2000) believe that a significant part of the current expansion of geo-tourism is attributed to "modernization". On the one hand, the hassles of modern life represent a crucial motivator for tourists to travel away from urban to more natural destinations, where they can practice in less-clamor activities. On the other hand, the role of the outstanding development of both communication and transportation sectors is undeniable, as it facilitates traveling to remote tourism destinations, including isolated geological sites.

Additionally, tourists are getting more experienced, which motivates tourism destinations to focus on providing different types of niche tourism aiming to attract those demanding tourists. Finally, the possibility of practicing geo-tourism activities in association with several similar activities (*e.g.*, adventure, educational, sport, and natural) enthruses some tourists to involve in geo-tourism as well (Eder and Patzak 2004; Hetu, Johnson and Ollier 2010; Johnson, Hetu and Ollier 2010).

Providing a significant approach for classifying geo-tourists, Hose (2007, 261) suggests "dedicated geo-tourists" as *individuals who purposefully select to visit geo-sites and exhibits for educational or intellectual improvement and enjoyment*, and "casual geo-tourists" as *individuals who visit geo-sites and exhibits primarily for pleasure and some limited intellectual stimulation*. Another classification of geo-tourists could be suggested depending on their level of interaction with the geological site:

- i. Deep geo-tourists: Geologists and such alike, who have a robust geological background and are more likely to spend the majority of their visit involved in pure geological activities (*e.g.*, professional photographing, phenomena observation, recording notices, and examining geological materials such as rocks, fossils and minerals in-situ).
- ii. Geo-centric tourists: Tourists who are aware of the geological significance of the site they are visiting and have sufficient geological knowledge to appreciate the site geological value. Geo-tourists involved in this category will most probably practice other secondary activities such as hiking, camping, adventure, sport.
- iii. Soft geo-tourists: Tourists who focus mainly on non-geological activities, while the geological site represents the spatial background only. Soft geo-tourists enjoy geological spectacular sceneries and landscapes



without actual interaction with the geological components or deep understanding of its context or value. However, they could also be entitled “*ad-hoc geo-tourists*”.

iv. Indoor geo-tourists: Tourists who travel to visit remarkable indoor geological locations such as geological museums or research centers.

Accordingly, researchers such as Sigurdsson and Lopes-Gautier (2000) believe that geo-tourism represents an appealing tourism type, as it often gives tourists unique opportunities to enjoy spectacular scenery, enhance their environmental knowledge, and practice diverse activities.

## 2. Research Aim

Researchers are frequently affirming now that Post-COVID-19 tourism will never resemble Pre-COVID-19 tourism and that a quick recovery of tourism is hardly achievable. The term “new normal tourism” has been widely circulated to express the expected massive changes in the tourists’ characteristics and tourist products features for the coming years. In the same context, it could be anticipated that tourists will mostly tend to favor more isolated forms of tourism, especially considering the current necessity for health safety and social distancing. On the other hand, Oman worked hard over the last two decades to establish a strong tourism sector aiming to support its economy, which relies heavily on the wobbling oil trade. Accordingly, this research aims to investigate geo-tourism as a potential safe resort for Post-COVID-19 tourism, focusing on Al Jabal Al Akhdar as a model case.

## 3. Research Methodology

As one of the earliest studies on tourism in the Post-COVID-19 era and the suitability of geo-tourism as a safe option, this study tends to provide descriptive data of a model geo-site in Oman. Data for this research was collected by adopting a combination of “content analysis” and “field observation”. In this context, content analysis has been widely employed as a competent data-collection method (Punch 1998). This method includes gathering data from sources such as journals, official records, official websites and visual documents (*e.g.*, films) (Finnegan 1996), where contents “*rather than acting as an introduction to the research...take on a central role as the actual thing that is to be investigated*” (Denscombe 1998, 158). Regarding this research, official records of the related organizations and authority (*e.g.*, Nizwa Municipal, Shura Council, and Ministry of Tourism) were investigated. The relevant documents were examined over the period between April and July 2020, where they were well searched for data related to the available geo-attractions in Al Jabal Al Akhdar, plans for developing the area as well as any previously applied strategies. Content analysis was useful as well for understanding the concepts and procedures related to COVID-19.

Reviewing the official records and previous related studies was exceedingly useful for exploring issues such as the available tourist services in Al Jabal Al Akhdar, as well as the currently applied plans and strategies. Conversely, the official records were not functional at all when it comes to identifying the geological attractions or tourists’ activities. Thus, site visits associated with field observation were conducted to fulfill the need for further data. This late methodology was appropriate for understanding the reality of the geo attractions available in the area of study as well as defining the current usage of these attractions. Numerous field visits were conducted over a long period of almost ten years and were well documented by photos and video records, which were analyzed.

## 4. Geological Tourism in Oman

Early enough, Oman was fully aware of the importance of maintaining its environmental treasures. In 1974, Oman was one of the earliest Arabic countries to issue an environmental protection law, which was followed by issuing several other regulations to protect specific areas (*e.g.*, Al Selil, Al Kheiran) or valuable ecological elements (*e.g.*, Arabic Oryx; turtles). In 1979, Oman established the Council of Environment Conservation and Pollution Prevention, which was then transformed into the Ministry of Environment in 1984. Thus, it is not surprising that the United Nations Environment Programme (UNEP) has acknowledged Oman for being the first country in the Gulf Cooperation Council (GCC) to establish a Ministry of Environment; as well as for its efforts to increase awareness of its many tourism components and ensuring the protection of its rich biodiversity (<https://www.omanobserver.om/unep-report-says-oman-unique-world-of-nature/>).

To date, there are 22 protected areas in the Omani protection system, with more than 60 other sites proposed to be included, most of them include geological elements (Ministry of Environment and Climate Affairs. 2014. *5<sup>th</sup> National Report to the Convention on Biological Diversity (CBD)*, 2014; Ministry of Environment and Climate Affairs. 2020. *Protected areas in Oman*. Muscat: Ministry of Environment and Climate Affairs), besides,

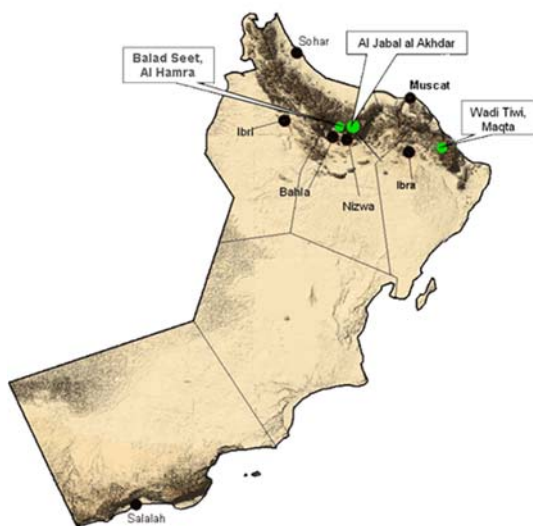
tens of locations which can be developed into geo-tourism sites. However, “abundance” is not the only advantage of the Omani geo-sites. Another major privilege is “diversity”, where miscellaneous geological elements have been formed over millions of years in Oman. This includes a variety of caves, dunes, hills, mountains, plains, oases, canyons, volcanic islands and coastlines. For instance, the rocky outcrops in Al-Hajar Mountains represent points of interest for international geologists, where geological records span over more than a hundred million years, which include at least three periods when Oman was covered by ice, as well as tens of unique geological sites (Hoffmann *et al.* 2016; Searle 2014; from [http://www.dsfr.univ-montp2.fr/omanophiolite/pages1\\_sommaire.htm](http://www.dsfr.univ-montp2.fr/omanophiolite/pages1_sommaire.htm)). Other phenomenal examples emerge in Musandam canyons, Al Wihaba dunes, and Al Jabal Al Akhdar formations. Accordingly, geo-tourism appears as a promising opportunity for Oman to benefit from its exceptional geological assets.

In this regard, similar to a lot of other countries (*e.g.*, USA, Italy, and Australia), Oman has been working hard to balance between maximizing its tourism benefits and conserving its environment. Several researchers (*e.g.*, Farsani, Coelho, and Costa 2010; Doss 2008; Coutinho *et al.* 2019) believe that geological sites if properly managed, will not only help to protect valuable geological items but will also (1) contribute positively to both the site and country's economy (*e.g.*, creating jobs, generating revenues), (2) enhance the destination environmental image, (3) increase the community awareness of environmental issues, as well as (4) provide dynamic educational platforms. Thus, while Oman is sincerely keen on sustaining its geological components, the country has recently started accepting that sustaining geological elements does not conflict with using them to fulfill other goals. Accordingly, Oman has been recently working on developing numerous geological sites such as Al Hoota Cave (2020) to boost its geo-tourism, which marks for a notable change in the Omani approach towards using geological sites for tourism purposes.

## 5. Al Jabal Al Akhdar

Al Jabal Al Akhdar (*i.e.*, the Green Mountain) is a chain of heights, which extend for approximately 300 km in the middle section of Al Hajar Mountains range, 130 km to the northwest of the capital Muscat, between 50-100 km inland from the Gulf of Oman coast (Map 1). The total area of Al Jabal Al Akhdar chain is approximately 2592 sq.km (Shura Council. 2010). Mountains, hills, plateaus, canyons, and plains define the topography of Al Jabal Al Akhdar.

Map 1. Al Jabal Al Akhdar location



Map 2. Al Jabal Al Akhdar topography



Source: SQU & MoT. 2011

Source: SQU & MoT. 2011

August 2011 was a definite moment for Al Jabal Al Akhdar when Oman designated the region as a nature reserve in a bid to conserve its unique biodiversity (Gulf News 2011. <https://tinyurl.com/y9ejff44>). However, even though Al Jabal locates near to several major population gatherings (*e.g.*, Muscat and Sohar), Al Jabal is an isolated territory due to natural factors, especially its height and topography, which add more difficulty to both entering as well as touring around the area. Al Jabal Al Akhdar has a limited based economy, which is developing slowly as the region has been relying on agriculture and traditional handcrafts. In 2006, Al Jabal Al Akhdar was opened for tourism, and since so, tourism has been a grooving economic activity. With its moderate weather and

fresh air during summer as well as its outstanding ecological and geological attractions, Al Jabal Al Akhdar has been for a few years now, one of the most attractive destinations in Oman, especially for geo-tourism, eco-tourism, and adventure tourism.

In more detail, Al Jabal possesses a wide range of natural and man-made attractions complemented by a unique social life. First and most importantly, unlike almost all the other areas in the Arabic Peninsula, Al Jabal Al Akhdar offers an exceptionally moderate, pleasant weather during summer (in average, 26.5 Celsius in July compared to 40.6 in Dubai for example) (SQU & MoT. 2011). Al Jabal is as well famous for its intensive agriculture, which paints the area with green color most of the year. Agriculture is linked to another phenomenal tourism landmark in Al Jabal Al Akhdar that is the *"falaj system"*, which is an authentic Oman irrigation system of tapping underground water that is led by man-made subterranean channels to villages for irrigation and domestic purposes (Al Marshudy 1995). To top it all, UNESCO recorded the *"falaj system"* as a world cultural heritage in 2006 (photos 1-2). Additionally, Al Jabal Al Akhdar provides a variety of ecological and geological attractions, including valleys, caves, mountains, hills, natural reserves, and wildlife. Finally, the area has as well its archaeological attractions and its unique customs and style of life.

Photos 1-2: Falaj irrigation



Source: SQU & MoT. 2011

Statistically, the number of tourists visiting Al Jabal Al Akhdar has boosted from 84.6 thousand tourists in 2006 to 226.4 thousand tourists in 2018 (SQU & MoT. 2011; <https://alroya.om/p/231250>). A recent survey supervised by the ministry of tourism has shown that the main reason for tourists visiting Al Jabal Al Akhdar is weather and open area activities, especially camping and hiking. As well, it has illustrated that 30.1% of the tourists are Omani citizens. The other 69.9% are international visitors, coming mainly from surrounding countries such as UAE, Saudi Arabia, and Kuwait, as well as expats living in Oman. Most of the tourists stay for just one day or a weekend (SQU & MoT. 2011). The tourism sector is currently contributing significantly to the area's economic growth and has been considered as a critical factor in the development strategy of Al Jabal Al Akhdar.

## 6. Geological tourism in Al Jabal Al Akhdar

A geo-destination can be defined as *"a terrain, which is of sufficient size to generate economic activity notably through tourism, and encompasses a number of small sites (geo-sites) which, taken together, illustrate important geological features"* (Eder and Patzak 2004, 163). Accordingly, it is not unusual for a geological destination to integrate, within its boundaries, a variety of archaeological, ecological, historical, and cultural sites, which is definitely applicable to Al Jabal Al Akhdar. However, this research intends to illustrate the geological attractions mainly, which include the following attractions:

### 6.1 Mountain Chains

Mountain chains, with its distinctive topography and geology, are definitely the essential geological element, which distinguishes Al Jabal Al Akhdar from all the other tourist destinations not only in Oman but also in other competitive surrounding countries. Sedimentary and volcanic rocks on Al Jabal al Akhdar have been weather-beaten and exposed to reveal the succession of several geological eras. These rocks formed an old platform over which contemporary and younger ocean sediments were thrust. In this context, mountains, as well as the numerous canyons, offer visitors a valuable opportunity to examine Oman's geological treasures (Robertson,



Searle and Ries 1990). It as well gives an incomparable prospect for geologists to follow the geological evolution. Additionally, fossils could easily be found in the area. A combination that makes Al Jabal Al Akhdar looks like an open geological park (photos 3-8).

## 6.2 Canyons and Plains

In geology, a *"canyon, dale or gorge"* means a deep valley, while a *"plain"* refers to an open flat landscape. In this context, canyons and plains represent a significant feature of Al Jabal Al Akhdar as the region has more than 75 canyons and plains (SQU & MoT. 2011).

*"Al Maidin"* is doubtlessly the most important canyon as it extends to more than 100 km from where almost all the other canyons originate (see map 3). In this context, most of the canyons in Al Jabal Al Akhdar are known for their roughness, which resulted in the emergence of many extraordinarily high or low isolated spots as well as providing a wide range of geological attractions from different geological eras including rare geological formations. Such features make the canyons exceptionally attractive for different types of tourists.

Photos 3-8. Al Jabal Al Akhdar mountain chains







Source: SQU & MoT. 2011

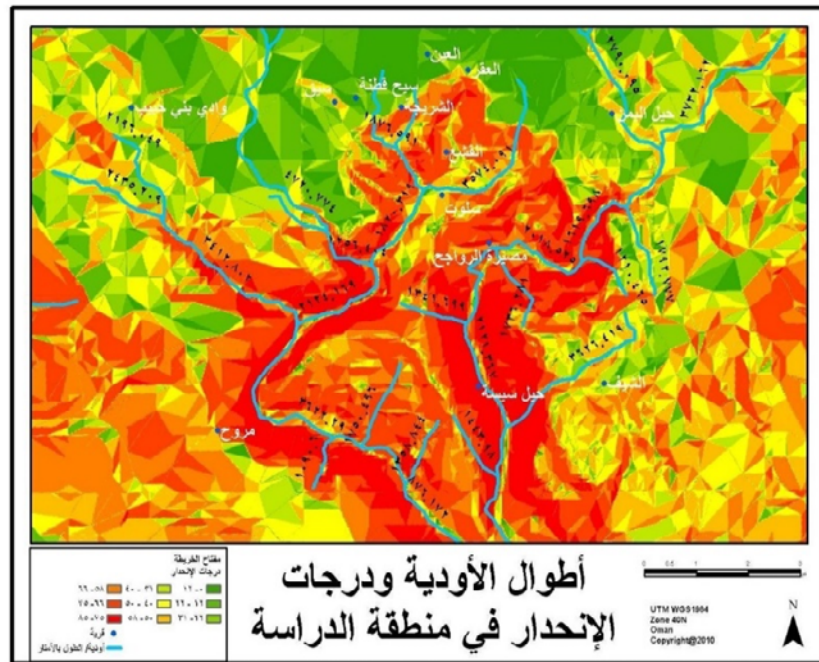
Photos (9-12). Bani Habib Canyon



Source: SQU & MoT. 2011



Map 3: Al Jabal Al Akhdar main canyons and their lengths



Amongst all the foremost canyons in Al Jabal Al Akhdar, "*Bani Habib*" appears as the most exploited canyon in terms of tourism at the time being, which resulted in a high volume of tourist demand. This is due to several reasons, (1) the canyon is providing an extraordinary combination of geological, natural and cultural attractions, (2) it is still flourishing with an intensive agriculture activity, (3) the canyon is supplied with satisfactory general services (*e.g.*, stairs, signing boards, toilets), and finally (4), the canyon's location is relatively accessible and near to the inhabited centers (photos 9-12). However, *Bani Habib* valley is not the only valid valley for tourism in the area. Several other valleys (*e.g.*, Seq, Hail Al Yemen, and Saloot) are already used for tourism now, especially for trekking, even though none of them is equipped with general or tourist facilities.

Photos (13-14). Rash Al Sheikh giant craters



Source: SQU & MoT. 2011

On the Other hand, “plains” seem as another potential geological attraction in Al Jabal Al Akhdar, especially for domestic families, who might be unable to deal with the canyons’ roughness. These families are usually looking for an open area where they can relax and enjoy nature. However, several plains are regularly invaded with domestic tourists, especially during weekends, for camping as well as admiring the geological formations in their surroundings. Some of the most accessible plains include “*Al Bax*”, “*Al Mahlab*”, and “*Qutina*”. These plains comprise several geological attractions, including “giant craters”, such as in *Ras Al Sheikh*, where some of the craters go down for more than 50 m. and its base is around 20 m. in diameter (see photos 13-14). Some other craters are notably narrow (about 1 m. in diameter), curved and deep (around 10 m. depth), which locals call “the dog holes”.

### 6.3 Caves

“Caves” is another major attraction in Al Jabal Al Akhdar, where more than 50 caves exist in the area. Some of these caves are notably small, where just a few individuals can hardly get in, while some other caves are large enough for hundreds of tourists to go and tour around the cave for several hours. As well, some of those caves are totally abandoned or hardly known. In contrast, others are fully developed for tourism purposes and well-promoted as significant tourist attractions in Oman (*e.g.*, Al Hoota Cave).

Al Hoota Cave is the most well-defined, accessible, and spectacular geological attractions in Oman. The cave lies at the foot of Jabal Shams (at Al Jabal Al Akhdar southern side) near Al-Hamra and extends for 5 km approximately. Like many other caves in Oman, Al-Hoota was formed by the dissolution of limestone by acidic water. The cave presents a fragile underground ecosystem, including colorful stalactites and stalagmites, and three large lakes. The lakes are famous for its blind fishes, which thrive in the large shoals and catchments of water, feeding on organic nourishment carried in by the rainwater (photos 15-18). Aiming to enhance Al Hoota visitation rates, the government launched in 2002 an ambitious project for providing the cave with all the required amenities to facilitate domestic and international visits. This includes operating an electric train, carving a walkway alongside the cave, establishing a visitor center, a geological exhibition, a gift shop, and a restaurant (Al Hoota 2020). However, the opening of Al Hoota Cave in 2006 was received with exceptional enthusiasm amongst both domestic and international tourists who rushed immediately to Jabal Shams area for visiting the site.

Photo 15 – 18. Al Hoota Cave





Samples of other caves include “*Al Daba Cave*”, which is a small cave (60 sq. m) inside Seq canyon (photo 19) (SQU & MoT. 2011). “*Al Madrassa Cave*” (the school cave), which got its name from its usage as a religious school during previous eras. The total cave area is approximately 150 sq. m. and is currently used for camping purposes (photo 20) (SQU & MoT. 2011). “*Al Qurta Cave*”, which is hardly approachable as tourists have to walk for almost 2 hours on the rough surface before climbing a relatively high mountain for reaching this cave. However, this cave is not utilized for any tourist activity despite being one of the biggest caves in the area (photos 21-22) (SQU & MoT. 2011).

Photo 19. Al Daba Cave

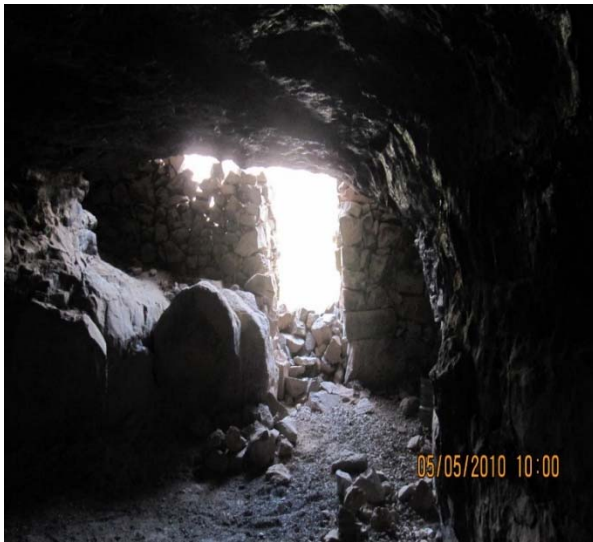


Photo 20. Al Madrassa Cave



Photo 21. Al Qurta Cave

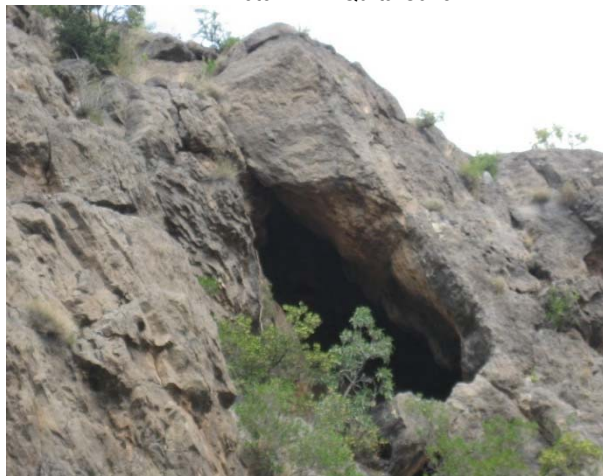


Photo 22. Qurta Cave



## 7. The Suitability of Al Jabal Al Akhdar Geo-Sites for Post-COVID-19 Tourism

Several factors support the assumption that Al Jabal Al Akhdar geo-sites could be significantly suitable for hosting Post-COVID-19 tourists and playing the role of a catalyst to reinitiate the Omani tourism business again.

### 7.1 The Isolated Nature of Al Jabal Al Akhdar

Al Jabal Al Akhdar is naturally an isolated area from the rest of its inhabited surroundings. Arriving at the base of the mountain requires about an hour driving from the capital Muscat, and half an hour from Nizwa - the nearest populated city - before another half an hour driving to climb the steep, sneaky 25 km road to the main plateau. More than 20 geological sites, as well as seven trekking roads, are accessible from the main plateau. The sites and roads witness a limited number of visitors who mostly travel to the location during the summer season (April – September) to enjoy the pleasant, unusual weather rather than visiting the geological sites, which remain barely

visited most of the year. Such isolation fits well with the tourists' potential need to keep themselves away from main cities and crowded sites.

### 7.2 The Limited Number of Daily Visitation

Oman is a country of diverse natural and man-made attractions. The country is also well-equipped with almost all the infrastructure and tourist services required for establishing a robust tourism business. In 2004, the Omani Ministry of Tourism was established, and since so, tourism plans have always been focusing on serving niche, high spender tourists rather than attracting mass tourism. As a result, only 3.5 million tourists visited Oman in 2019 (Travel Daily News. "Oman welcomed over 3.5 million visitors in 2019". *Travel Daily News*, June 30, 2020). In the same context, the number of tourists visiting Al Jabal Al Akhdar doesn't exceed 226,500 visitors annually (<https://alroya.om/p/231250>). Confirming this low level of visitation, it may worth noting that the most visited geo-site in the area (i.e., Al Hoota Cave) has a maximum of only 750 visitors allowed per day, which is hardly achievable in average days. Such limited numbers of visitors will facilitate visitation without neglecting rules of social distancing.

### 7.3 The Limited Involvement of the Local Community

It is common that some types of tourism, such as adventure, eco, and geo-tourism, flourish away from major residential communities, as tourists tend to visit remote, isolated sites, which may result in a significant limitation of interaction between tourists and their hosting communities. Before the spread of COVID-19, it was a common complaint that the local community was hardly involved in providing tourism services, which were partly confined to activities such as guidance, sale of local agricultural products, and transportation. This wasn't a result of a tourism social rejection, but mostly due to not preferring tourism as a career for different reasons (e.g., seasonality, low salaries). Domestic tourists are then commonly using their facilities, especially for camping, which represents the foremost type of accommodation in Al Jabal Al Akhdar geo-sites. Again, such feature fits well with the potential Post-COVID-19 tourism.

### 7.4 The Need for Development

Reattracting tourists in the Post-COVID-19 era will depend on a combination of typical and new factors of competitiveness. Typically, factors such as the site attractiveness, price, and safety will remain valid and essential for attracting the "new normal tourist". However, features such as standards of health services and accessibility will gain additional value. Plans for reattracting tourists should as well consider the obstacles currently hindering tourism, which - as early mentioned - include (1) the travelers' uncertainty about the upcoming travel restrictions, (2) the worldwide economic recession, (3) post-crisis fear and hesitation, and (4) problems of supporting sectors such as airlines. Accordingly, few recommendations may help enhance tourism demand to Al Jabal Al Akhdar geo-sites over the coming period.

### 7.5 The Geological Conservation/Geological Tourism Synchronization

Understanding the concept of geological conservation is an initial procedure for geo-sites management as it forms the main limitation of any development plans. Within the understanding of this research, geological conservation means, "Protecting geological sites from being filled, covered, or bulldozed for any uncontrolled access, which may result in damaging its elements or just sealed off by ignorance of their existence". Accordingly, Oman should manage the site within what could be entitled "geo-conservation/geo-tourism synchronization", which could be comprehended as achieving mutual agreement between both tourism and environmental benefits.

In this context, researchers (e.g., Higham, Odd Vistad 2011, Doss 2008) have discussed in detail the perceived conflictual relationship between tourism and nature conservation, assuming that natural conservation tends to set restricted rules, which may hold back opportunities for tourism development. However, several possible remedies have been suggested to overcome this perceived conflict; and nowadays, the general perception is that with proper planning and management, nature conservation and tourism can work side-by-side in the same areas for the sake of both of them (Uusitalo 2017).

On the one hand, protecting geosystems can support tourism by conserving, preparing, and enhancing those natural elements, which could easily be used as highly compelling, valuable attractions (Uusitalo 2017). On the other hand, geo-tourism could help geological sites in several ways. First, tourism revenues could help cover the usually high expense of protecting and enhancing endangered geological elements. Such revenues can as well generate income for local citizens, which should stimulate them to protect what tourists are coming to see. Tourism also sheds light on neglected areas – bearing in mind that most of the geological sites are relatively

isolated – which can assist in developing these areas into more urbanized centers. Finally, enhancing awareness of geological issues among citizens is another potential advantage of improving geo-tourism. Finally, a firm commitment to the site carrying capacity is the critical principle for any healthy relationship between tourism and site conservation.

Fulfilling this principle fits well with the potential requirements of Post-COVID-19 tourism, as geo-conservation necessitates limiting the number of tourists to ensure not exceeding the site carrying capacity, which should help ensure the site sustainability. This fundamental principle will result in providing sufficient spaces for tourists to freely move without being in the threat of closely contacting others. Considering that geo-tourism is, by default, not attracting mass tourism and forms less than 1% of the total, global tourists demand will help as well, ensure a limited number of visitors to any geo-site in Al Jabal Al Akhdar.

### 7.6 Sufficiency and Efficiency of Health Services

It is widely accepted now that Post-COVID-19 tourists' decisions will be highly influenced by the availability and quality of destination health services. Destinations that fail to prove health efficiency will most probably not be able to attract significant tourist demand. In this regard, it is expected that global organizations such as the World Health Organization and the United Nations World Tourism Organization will play a key role in issuing the rules for the coming up period. Official statements will mostly categorize countries into colored zones (*e.g.*, green, yellow, orange, red) to identify the severity of the COVID-19 or the readiness for receiving tourists. Most probably, destinations will start looking for “certificates of wellness”, for instance, to prove their safeness for visitors. It is also expected that countries will keep issuing lists of the countries they are allowing their citizens to travel to, and countries that they are willing to receive travelers from. According to the Omani Ministry of Health, the country has 74 hospitals offering 6,589 beds (1.6 beds per 1,000 individuals), 266 government health clinics, and 1,000 private clinics. The total number of doctors is 8,622, followed by 19,762 nurses and 2,420 pharmacists in 2016 (<https://tinyurl.com/yah3mdtz>). These numbers secured sufficient services over the last years; nevertheless, the rate of bed is significantly under the world average (*i.e.*, 2.7 beds per 1,000 individuals) (<https://data.worldbank.org/indicator/SH.MED.BEDS.ZS>). In this regard, ensuring the availability and efficiency of health services in potential tourist destinations such as Al Jabal Al Akhdar is a necessity if Oman is interested in reattracting tourists again. However, promoting the quality of these services to establish local and international trust is also essential. Finally, while Oman has already published clear guides for the safe operation of different tourist services, including hotels and airports, there is still a need for issuing an apparent protocol for dealing with potential COVID-19 cases among tourists.

### 7.7 Handling Travel Restrictions

By the 20<sup>th</sup> of April 2020, 100% of the countries were applying some travel restrictions (<https://www.unwto.org/impact-assessment-of-the-covid-19-outbreak-on-international-tourism>). In this regard, on March 15, Oman suspended issuing tourist visas to all nationalities. Then, as of March 18, entry to Oman was restricted to Omani citizens only, as all the country air, sea and land borders were closed to mitigate the spread of coronavirus. On the same date, Omani citizens were prevented from leaving the country (<https://www.omaniairports.co.om/en/content/corona-virus-updates>). To date (July 15, 2020), these decisions are still valid with an initial notion that travel restriction might be eased, and flights will be resumed starting from August 2020. This will meet the start of the Omani tourism high season, which typically extends from September to April, except for locations such as Al Jabal Al Akhdar and Salalah, which could be visited all over the year due to their delightful weather.

### 7.8 Setting an Intensive Promotional Strategy

Oman should be aware that developing geo-tourism in Al Jabal Al Akhdar, especially considering the current crisis, requires setting an intensive promotional strategy. In 2009, Oman launched its first major tourism promotional campaign, where a new logo was presented in January 2009, and a new slogan was released late in 2011. In parallel, a domestic tourism promotional campaign was launched in the summer of 2011. Surprisingly, both Al Jabal Al Akhdar and geo-tourism were not focally presented in the campaign. Several reasons combine to form the crucial need for intensive promotional efforts for geo-tourism in Al Jabal Al Akhdar. First, Oman is a new destination in the realm of tourism. This usually leads to several classic problems, most commonly facing stronger and more mature competitors (*e.g.*, Dubai, Bahrain, and Jeddah). Second, the same problem is also applicable to Al Jabal Al Akhdar, which could be considered as one of the newest tourist destinations in Oman. Here, it should be mentioned that Al Jabal Al Akhdar was first opened for tourists in 2006. Third, despite the incremental interest



in practicing new niche trends in tourism (*e.g.*, geo-tourism, eco-tourism, green, yellow and blue tourism), geo-tourism is undoubtedly not a common practice among the majority of current international tourists. These three reasons unify to confirm the need for comprehensive efforts for promoting geo-tourism in Al Jabal Al Akhdar. However, these problems can actually be promoted as advantages in the Post-COVID-19 tourism as features such as novelty, remoteness, and fewness of tourists will mostly be considered privileges for any tourism destination in the coming months, if not years. Finally, it should be mentioned that Post-COVID-19 promotional activities should focus not only on the classic promotional elements such as the site attractions, beauty, or tourist facilities, but also on the destination safety, travel information, and health services.

## Conclusion

COVID-19 is undoubtedly a devastating, unprecedented crisis that hit the tourism business heavily, which resulted in shutting down most of the tourism business either temporarily or permanently. It is as well commonly accepted now that the resumption of tourism business will witness fundamental changes, to the extent that researchers coined the term “new normal tourism” to express the existence of a new form of the tourism business that reflects the Post-COVID-19 tourists’ needs.

In this regard, Oman is a relatively new tourism destination in the Middle East, where the country has an incomparable combination of cultural and natural attractions. One of these significant attractions is its geological sites, which have been recognized by several international entities, including the UNESCO. This research illustrates Al Jabal Al Akhdar as a potential geo-tourism site that can attract tourism as it can significantly meet the potential criteria of Post-COVID-19 tourism.

Accordingly, it could be highly advised that Oman, such as several other tourist destinations, should focus more on isolated tourism types such as geo-tourism if it pursues to reinitiate its tourism business soon.

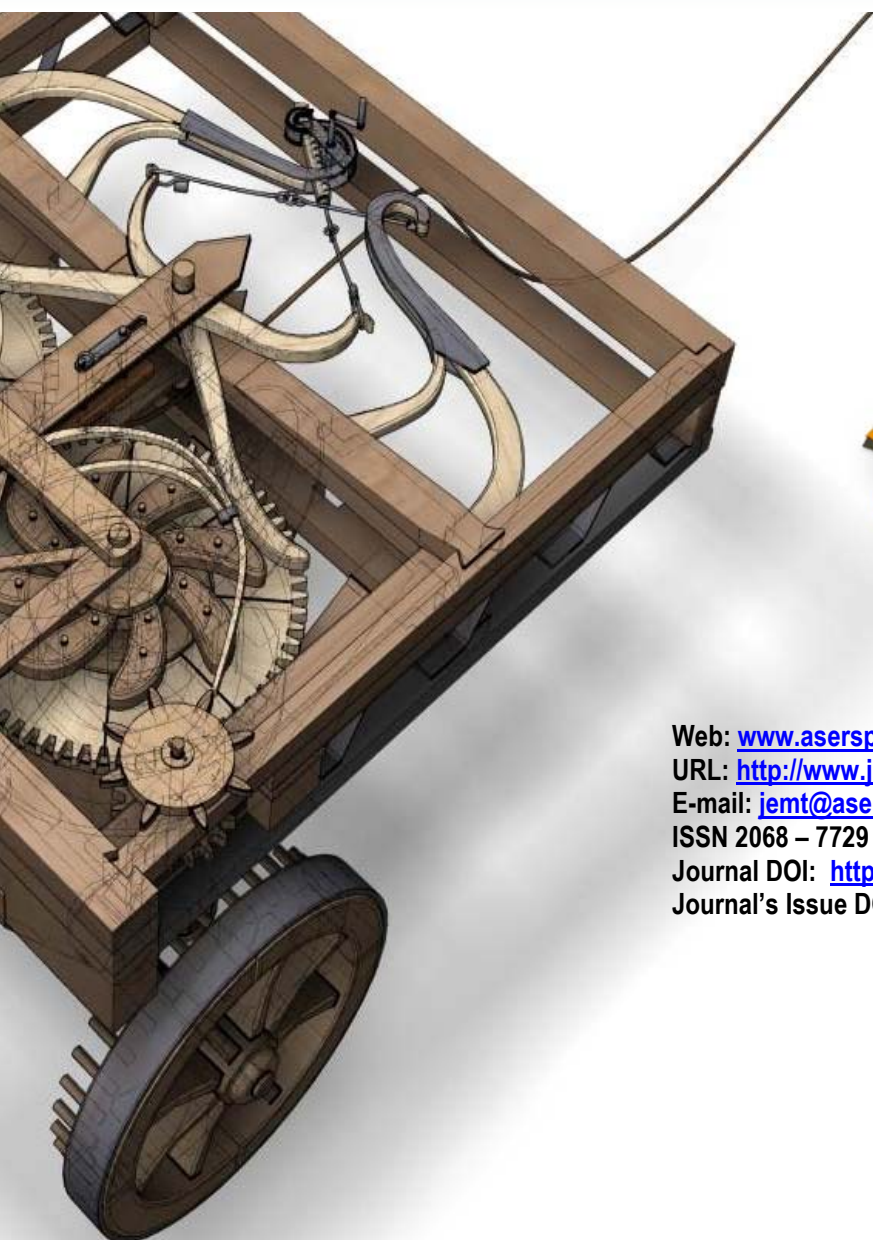
## References

- [1] Affi, G., Al Sherif, N. 2014. Women Occupational Empowerment in the Omani Tourism Sector. *European Journal of Tourism, Hospitality, and Recreation* 5(1): 53 – 84.
- [2] Al Marshudy, A. 1995. *Traditional agriculture and fishing in the Sultanate of Oman*. Muscat: College of Agriculture, Sultan Qaboos University.
- [3] Coutinho, A., Urano, D., Mate, A. J., Nascimento, M. 2019. Tourism and geotourism: a conceptual problem. *Rosa dos Ventos – Turismo e Hospitalidade* 11(4): 754-772. DOI: [10.18226/21789061.v11i4p754](https://doi.org/10.18226/21789061.v11i4p754)
- [4] Denscombe, M. 1998. *The Good research guide: for small-scale social research projects*. Buckingham: Open University Press.
- [5] Doss, P. 2008. Integrated geological resources management for public lands: A template from Yellowstone National Park. *Gas Today* 2008, (October): 30 – 37. DOI: [10.1130/GSATG23A.1](https://doi.org/10.1130/GSATG23A.1)
- [6] Eder, W., Patzak, M. 2004. Geoparks-geological attractions: A tool for public education, recreation, and sustainable economic development. *Episodes*, 27(3): 162–164. DOI: [10.18814/epiiugs/2004/v27i3/001](https://doi.org/10.18814/epiiugs/2004/v27i3/001)
- [7] Ergasheva, Z. 2010. Geological tourism organization established in Tajikistan. *Asia-Plus*, July 15. Available at: <https://tinyurl.com/ybws7qqe>
- [8] Farsani, N., Coelho, C., Costa, C. 2010. Geo-tourism and geoparks as novel strategies for socio-economic development in rural areas. *International Journal of Tourism Research*, 13: 68–81. DOI: [10.1002/jtr.800](https://doi.org/10.1002/jtr.800)
- [9] Finnegan, R. 1996. Using documents. In *Data collection and analysis*, edited by Roger Sapsford and Victor Jupp, 16 – 29. London: SAGE Publications Ltd. DOI: <https://dx.doi.org/10.4135/9781849208802>
- [10] Hall, M., Weiler, B. 1992. “Introduction.” In *What’s special about special interest tourism?* Edited by Betty Weiler, and Hall, Michael, 1 – 13. Bellhaven Press.
- [11] Heggie, T. 2009. “Geo-tourism and volcanoes: health hazards facing tourists at volcanic and geothermal destinations.” *Travel Medicine and Infectious Disease* 7(5): 257–261. DOI:<https://doi.org/10.1016/j.tmaid.2009.06.002>
- [12] Higham, J., Odd Vistad. 2011. “Tourism in Protected Natural Areas: The Nordic-Baltic Context.” *Scandinavian Journal of Hospitality and Tourism* 11(1): 1-12. DOI:<https://doi.org/10.1080/15022250.2011.638208>
- [13] Hoffmann, G., Meschede, M., Zacke, A., Al Kindi, M. 2016. *Field Guide to the Geology of Northeastern Oman*. Stuttgart: Schweizerbart.

- [14] Hose, T. 2007. Geo-tourism in Almeria province, southeast Spain. *Preliminary communication* 55(3): 259-276. Available at: [https://hrcak.srce.hr/index.php?id\\_clanak\\_jezik=38817&show=clanak](https://hrcak.srce.hr/index.php?id_clanak_jezik=38817&show=clanak)
- [15] Johnson, C., Sheth, H., Ollier, C. Geological attractions for tourists in Mauritius. In *Global Geo-tourism Perspectives*, edited by David Newsome and Ross Dowling, 169–173. UK: Goodfellow Publications, 2010.
- [16] Punch, K. 1998. *Introduction to social research: Quantitative and qualitative approaches*. London: SAGE Publications Ltd.
- [17] Brent, R., Jiang, Y. 2019. A review of research on tourism risk, crisis, and disaster management: Launching the annals of tourism research curated collection on tourism risk, crisis, and disaster management. *Annals of Tourism Research*, 79(1): 1 – 15. DOI <https://doi.org/10.1016/j.annals.2019.102812>
- [18] Robertson, A., Searle, M., Ries. A.1990. The geology and tectonics of the Oman region. *The Geological Society*, 49: 3 – 26.
- [19] Robinson, A. 2008. Geotourism: Who is the Geotourist? *Inaugural National Conference on Green Travel, Climate Change, and Ecotourism*, 16 – 20 November 2008, Adelaide, Australia. Available at: <https://sustain.pata.org/wp-content/uploads/2015/02/Geotourism.pdf>
- [20] Searle, M. 2014. "Preserving Oman's geological heritage: proposal for establishment of World Heritage Sites, national geoparks, and sites of special scientific interest." *Geological Society*, 392, no. 1: 9-44. DOI:<https://doi.org/10.1144/SP392.2>
- [21] Sheth, H., Johnson, C.P., Ollier, C. 2010. The seven-colored earth of Chamarel, Mauritius. *Journal of African Earth Sciences* )57(1–2: 169-173. DOI: <https://doi.org/10.1016/j.jafrearsci.2009.07.009>
- [22] Sigurdsson, H., and Lopes-Gautier, R. 2000. Volcanoes and tourism: In *Encyclopaedia of Volcanoes*, edited by Sigurdsson, Haraldur *et al.*, 1283–1299. New York: Academic Press
- [23] Alroya. 226.4 thousand visitors to Al Jabal Al Akhdar in 2018. *Al Roya*, January 28, 2019. Retrieved from <https://alroya.om/p/231250>
- [24] Al Hoota. 2020. *Welcome to Al Hoota Cave*. Nizwa: Al Hoota Cave. Retrieved from <http://www.alhootacave.om/>
- [25] Gulf News. Oman's 'Green Mountain' declared a nature reserve. *Gulf News*, August 18, 2011. Available at: <https://tinyurl.com/y9eiff44>
- [26] Gulf News. 13,000 doctors needed in Oman by 2040. *Gulf News*, April 12, 2018. Available at: <https://tinyurl.com/yah3mdtz>
- [27] International Labor Organization. 2020. *The impact of COVID-19 on the tourism sector*. Geneva: International Labor Organization. Available at: <https://tinyurl.com/y9v6luhu>
- [28] Ministry of Environment and Climate Affairs. 2014. *5<sup>th</sup> National Report to the Convention on Biological Diversity (CBD), 2014*. Muscat: Ministry of Environment and Climate Affairs.
- [29] Ministry of Environment and Climate Affairs. 2020. *Protected areas in Oman*. Muscat: Ministry of Environment and Climate Affairs. Available at: <https://meca.gov.om/en/>
- [30] Ministry of Tourism. 2011. *Omani Ministry of Tourism: Our Mission*. Muscat: Ministry of Tourism. Available at: <http://www.omantourism.gov.om>
- [31] Ministry of Tourism. 2016. *Oman Tourism Strategy* (Document no. 309, 2<sup>nd</sup> version). Muscat: Ministry of Tourism.
- [32] Ministry of Tourism. 2019. *Tourism sector's contribution to GDP by 2.9% in 2018*. Muscat: Ministry of Tourism. Available at: <https://tinyurl.com/y856tt4v>
- [33] Ministry of Tourism. 2020. *Welcome to Oman tourism portal*. Muscat: Ministry of Tourism. Available at: <https://tinyurl.com/y8v3zm86>
- [34] National Centre for Statistics & Information. 2015. *The reality of the Omani tourism: Information and statistics*. Muscat: National Centre for Statistics & Information.
- [35] National Park Services. 2020. *Death Valley Hosted Record 1,678,660 Visitors in 2018*. National Park Services. Available at: <https://tinyurl.com/y7lcolyq>
- [36] National Park Services. 2020. *Visitation to Hawai'i Volcanoes National Park creates \$94.1 million in economic benefits*. National Park Services. Available at: <https://tinyurl.com/ybxleidx>

- [37] Norway: Geology for Society Special. 2008. *Geological Survey of Norway (Publication, 11)*. Norway: Geology for Society Special. Available at: <https://tinyurl.com/y8vfdg8l>
- [38] Norway: Geology for Society Special. 2010. *Annual report*. Norway: Geology for Society Special. Available at: [http://www.ngu.no/upload/Aktuelt/Nyheter%202011/annualreport\\_2010\\_webspreads.pdf](http://www.ngu.no/upload/Aktuelt/Nyheter%202011/annualreport_2010_webspreads.pdf)
- [39] Observer. "UNEP report says Oman 'unique world of nature.'" *Observer*, July 7, 2018. Available at: <https://www.omanobserver.om/unep-report-says-oman-unique-world-of-nature/>
- [40] Oman Airports. 2020. *Corona virus updates*. Muscat: Oman Airports. Available at: <https://www.omanairports.co.om/en/content/corona-virus-updates>
- [41] Organisation for Economic Co-operation and Development. 2020. *Tourism policy responses to the Coronavirus (COVID-19)*. Paris: Organisation for Economic Co-operation and Development. Available at: <https://tinyurl.com/y5tlf3cr>
- [42] Petroleum Development Oman. 2006. *Oman's Geological Heritage (2nd edition)*. Muscat: Petroleum Development Oman. Available at: [http://www.dsfu.univ-montp2.fr/omanophiolite/pages1\\_sommaire.htm](http://www.dsfu.univ-montp2.fr/omanophiolite/pages1_sommaire.htm)
- [43] Shura Council. 2010. *Developing Al Jabal Al Akhdar (Unpublished Report)*. Muscat: Al-Shura Council.
- [44] SQU & MoT. 2011. *Social and economic dimensions for tourism development in Wilayat Al Jabal Al Akhdar*. Muscat: Sultan Qaboos University & Ministry of Tourism.
- [45] Statista. 2020. *The number of recreational visitors to the Grand Canyon National Park in the United States from 2008 to 2019*. Statista. Available at: <https://tinyurl.com/y7v9pu64>
- [46] Tanfeedh. 2020. *The National Program for Enhancing Economic Diversification*. Muscat: Tanfeedh. Available at: <https://tinyurl.com/ybha5zfk>
- [47] The United Nations Educational, Scientific, and Cultural Organisation. 2020. *World Heritage List*. Paris: The United Nations Educational, Scientific, and Cultural Organisation. Available at: <https://tinyurl.com/ycz7bnpg>
- [48] Tourism Research Australia. 2007. *International and national visitor surveys*. Sydney: Tourism Research Australia
- [49] Travel Daily News. "Oman welcomed over 3.5 million visitors in 2019". *Travel Daily News*, June 30, 2020. Available at: <https://tinyurl.com/ya9ar5b8>
- [50] Travel Industry Association of America. 2003. *Geo-tourism: The new trend in travel*. Washington: Travel Industry Association of America. Available at: <https://tinyurl.com/y8ku7nny>
- [51] United Nations World Tourism Organization. 2020. 100% of global destinations now have COVID-19 travel restrictions. Madrid: United Nations World Tourism Organization. Available at: <https://www.unwto.org/news/covid-19-travel-restrictions>
- [52] United Nations World Tourism Organization. 2020. Impact assessment of the COVID-19 outbreak on international tourism. Madrid: United Nations World Tourism Organization. Available at: <https://www.unwto.org/impact-assessment-of-the-covid-19-outbreak-on-international-tourism>
- [53] United Nations World Tourism Organization. 2020. New data shows impact of COVID-19 on tourism as UNWTO calls for responsible restart of the sector. Madrid: United Nations World Tourism Organization. Available at: <https://www.unwto.org/taxonomy/term/347>
- [54] Uusitalo, M. 2017. How to maintain naturalness in nature-based tourism resorts? Approaches to assessments of landscape quality for tourism planning. University of Lapland, Finland. Available at: <https://lada.ulapland.fi/handle/10024/62842>
- [55] World Bank. 2020. *Hospital beds (per 1,000 people)*. Washington: World Bank. Available at: <https://data.worldbank.org/indicator/SH.MED.BEDS.ZS>
- [56] World Health Organization. 2020. *Timeline of WHO's response to COVID-19*. Geneva: World Health Organization. Available at: <https://www.who.int/news-room/detail/29-06-2020-covidtimeline>
- [57] World Tourism and Travel Council. 2014. *Travel & Tourism Economic Impact, 2014*. London: World Tourism and Travel Council.
- [58] World Tourism and Travel Council. 2020. *Oman 2020 annual research: key highlights*. London: World Tourism and Travel Council.

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ISSN 2068 – 7729

Journal DOI: <https://doi.org/10.14505/jemt>

Journal's Issue DOI: [https://doi.org/10.14505/jemt.v11.6\(46\).00](https://doi.org/10.14505/jemt.v11.6(46).00)