

# MUSANDAM

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Political Agency Musca

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Khasab

Visit of H.M.S. "Ormonde"

Bombardment

From 20-12-29 to 28-5-30.

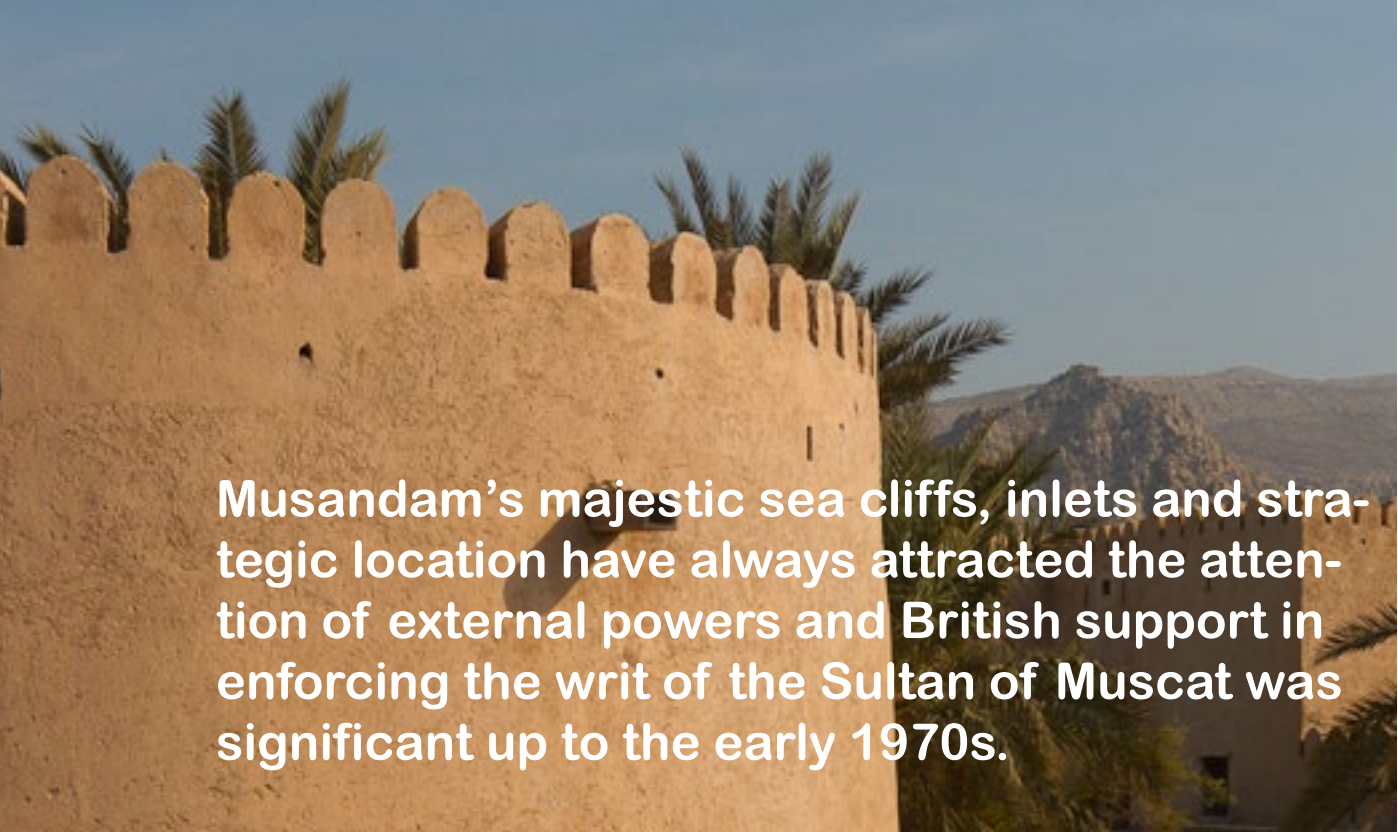
# Musandam in History

*Places, People and External Powers*

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Francis Owtram





Musandam's majestic sea cliffs, inlets and strategic location have always attracted the attention of external powers and British support in enforcing the writ of the Sultan of Muscat was significant up to the early 1970s.

The Musandam Peninsula, with its awe-inspiring cliffs and sea inlets, is an [ancient site of human inhabitation](#). Due to it overlooking the southern side of the Straits of Hormuz, through which around a sixth of the world's oil supply passes, the peninsula has attained immense strategic significance in the contemporary era: the shipping lanes through the Straits pass through Omani territorial waters. It is also important to remember that this geopolitical importance of Musandam existed before the oil era - the Sultan of Muscat's territorial claim there resulted in the signing with Britain of an agreement to build an important telegraphic connection in the mid-19th century.

Of further curiosity, is that it is an exclave separated from the rest of Oman by the United Arab Emirates. The contemporary Musandam governorate [includes Madha which is an exclave within the Emirate of Fujairah, thus completely surrounded by the UAE but also including within it a UAE enclave, the village of Nahwah, part of the Sharjah Emirate](#).

The story of how this patchwork quilt of modern sovereignty came about and the role of Britain in knitting it together is the main focus of this article, which proceeds from a brief overview of the land and people, the coming of the Portuguese, to Britain's involvement up to Operation Intradon

in the 1970s.

### Places and people

Until recent years almost completely inaccessible except by sea, today's Musandam governorate consists of four districts: Khasab, Bukha, Dibba Al Baya and Madha. In 1971 the Omani government termed it the ['Northern region'](#) and [then in 1979 renamed it the Musandam governorate](#). Although sometimes referred to as the ['Norway of the Middle East'](#) the sea inlets (khor) were not carved out by glaciers but by the ongoing crash of the Asia and Arabia tectonic plates into each other. Musandam (known locally as Ru'us Al Jibal ) is inhabited by the people of the [Al Shihuh](#) tribe along with the [Al Dhuhuriyun](#) and [Al Kumazarah](#), who down the millennia lived by fishing and farming.

Today Khasab is connected by air to Muscat and roads link the main towns of the peninsula. One of the main tourist attractions is [Bukha fort](#), built by the Portuguese as part of its network of fortification on the coastline of Oman and the Gulf. Following the expulsion of the Portuguese from the Gulf and the coast of Oman by the Ya'arubi dynasty in the 17th century a claim was consistently maintained over Musandam by the rulers of Muscat. First by the Ya'arubi and then in the second half of the 18th century by the

Al Bu Sa'idi dynasty - who became the leading power in the west Indian Ocean with domains in [Gwadar](#) and leases on the Persian coast.

## Britain, Muscat and Musandam in the Nineteenth Century

In the first part of the 19th century Britain completed the shift from a trading presence in the Gulf [to a powerful imperial power with an Indian Empire to supply and protect](#); the [coastline of the Gulf was placed in this context](#) and became an informal protectorate. The Sultan of Muscat officially remained an independent ruler but became increasingly dependent on British power to sustain their position particularly after the [separation of the Sultanate of Muscat and Zanzibar in 1861](#). The changing relationship was reflected in various special treaties giving Britain exclusive rights, and partly for this reason [Britain helped the Sultan of Muscat](#) to maintain his rule in the various parts of his domains including Musandam. In the 1860s [Lewis Pelly](#) negotiated an agreement with [Sayyid Thuwaini bin Sa'id Al Bu Sa'id](#), Sultan of Muscat, which allowed the construction of a [telegraph station in 1863 on Telegraph Island](#).

Pelly even recommended the [proposal to relocate the base for the Gulf Naval Squadron to the deep anchorage of Khasab](#) and the [British Residency in the Gulf with it](#). In 1866 Pelly wrote to the Superintendent of the telegraph station that he would be coming to Musandam to hear a [complaint against the wali of Khasab](#). To be stationed on Telegraph Island was a [hardship posting that may have given origin to the phrase 'going round the bend'](#) and it was soon abandoned in 1868 when other routes became available.

## Twentieth Century

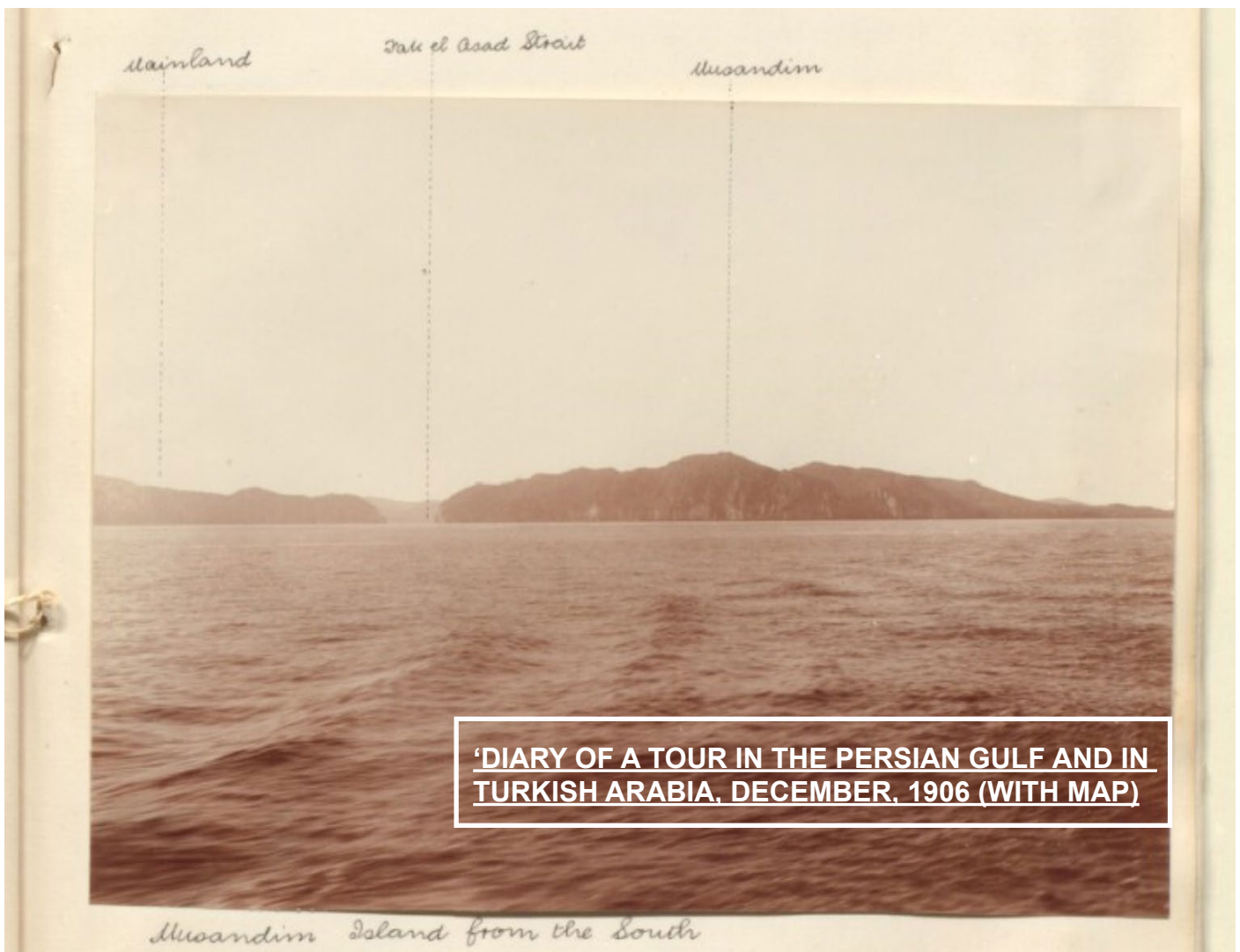
In November 1906 a [British military intelligence officer, Lieutenant-Colonel Wilfrid Malleson](#) passed by Musandam Island on his way up the Gulf to assess the defences of the Ottomans in Basra.

Further reconnaissance of Musandam took place [in 1926 when Bertram Thomas made a trip to the peninsula](#) to identify the allegiance of different tribes to assist in dispute resolution and tax collection. The Political Agent in Muscat informed the Political Resident in Bushire: 'Thomas is making enquiries carefully and extensively



**Articles of Agreement** between the Sultan of Muscat and representatives of the British Government on the proposed extension of the telegraph line from Persia





to procure information, but this will take time. Areas referred to are not clear to us'. [His hand-drawn map of Musandam](#) is shaded with different colours to indicate the apparent allegiance of the tribes to various Trucial shaikhs and the Sultan of Muscat. Thomas also collated notes on the [Shihuh tribe](#) - it is a marked feature of the correspondence of British officials at this time, including Thomas, that they were disparaging of the Shihuh, categorizing them as 'wild' and resistant to the control and the authority of the Muscat State. Indeed, in 1928 Major G.P. Murphy, the Political Agent in Muscat, sketched a map classifying [Musandam as an area where 'Sultan's rule acknowledged but shadowy'](#).

In the last days of the absentee rule of Sultan Taimur bin Faisal, a British attempt to send the survey ship HMS Ormonde from Aden was approved by the Council of Ministers but was resisted by the Shaikhs of Khasab, Diba, Bukha and Kumzar. The Political Resident at Bushire ordered the [bombardment of Khasab](#) by HMS Lupin. According to letters in British archives, Hasan bin Mohammed, Shaikh of Khasab, in-

formed Shaikh Nasir bin Khalfan, Wali of Khasab, and Shaikh Ibrahim bin Mohammed bin Juma, messenger of the Council of Ministers, '[The tribe in general and particular have been informed that you are desirous of planting a flag in the Ru'us al Jabal. This is absolutely impossible and never obtainable from them neither as a favour nor with a price. Do not trouble us with a thing that we cannot endure.](#)' The inhabitants of Musandam resisted the intrusion and interference in their affairs resulting in the imprisonment of the [Shaikh of Khasab in Muscat for eighteen months from May 1930](#).

Further Salah bin Mohammed, Shaikh of Dibba, wrote '[... with regard to the arrival of the man-of-war at Shabus and Khasab. Be informed my brother that we will not give our places to any body absolutely, neither to the weak nor to any body else. As for you, you are not a king over us so that you might discover our conditions and we wish you to postpone the interference. And if the King Saiyid Taimur arrived in the land of Muscat we will follow on his tracks to see what the ministers are doing in this matter.](#)' In any case,

the overall outcome was that Britain enforced the authority of Muscat State in Musandam when encountering resistance to British-backed Al Bu Sa'idi rule.

## **The Oil Era, Sovereignty, and British withdrawal from the Gulf**

Prior to the oil era, Britain had no intrinsic interest in the interior of the Arabian Peninsula but as the search for oil intensified it required the creation of rulers with authority over clearly demarcated territories on land. In July 1960 Foreign Office notes recorded that [Sultan Sa'id bin Taimur was most reluctant for European oil survey teams to visit Musandam](#). In some ways the treaty relationships Britain had instigated to maintain maritime peace centring on ports were more difficult to extend to land based territorial demarcations resulting in many complications. In the late 1960s as [Britain's 150 year hegemony in the Gulf](#) was set to end in December 1971, [intensive work ensued to define the borders of the various Emirates and also the border with Oman](#). Towards the end of the decade there was concern that the Musandam Peninsula, always remote, could become a site of opposition to the rulers that Britain sought to leave in place.

## **Operation Intradon**

In 1970 reports emerged that dissident groups opposed to the British-backed Sultanate were organising in Musandam, a decision was taken to deploy special forces to the area. [This involved inserting an SBS unit from HMS Middleton whilst a high altitude low opening parachute jump was undertaken by an SAS unit resulting in one death](#) although nothing of real substance was subsequently found. Referring to Operation Intradon a Foreign Office official prepared in June 1971 a briefing note for the UK Prime Minister in advance of a meeting with Sultan Qaboos: ['Earlier this year a combined Trucial Oman Scouts security/Sultan's Armed Forces \(supported by SAS\) was necessary to disrupt subversive element in the Musandam Peninsula in the north and there is always the possibility of renewed rebel activity in interior Oman. Insecurity in Oman could constitute a serious threat to stability and peace in the Gulf.'](#) British-supported Sultanate authority had been asserted once again in Musandam.

## **About Dr Francis Owtram**

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Dr Francis Owtram is an Honorary Research Fellow in the Institute of Arab and Islamic Studies at the University of Exeter and the author of *A Modern History of Oman: Formation of the State since 1920* (IB Tauris, 2004) as well as a number of articles on Oman on the Qatar Digital Library. He is currently working on various research and publication projects relating to the Sultanate – its modern history, political economy and foreign policy.

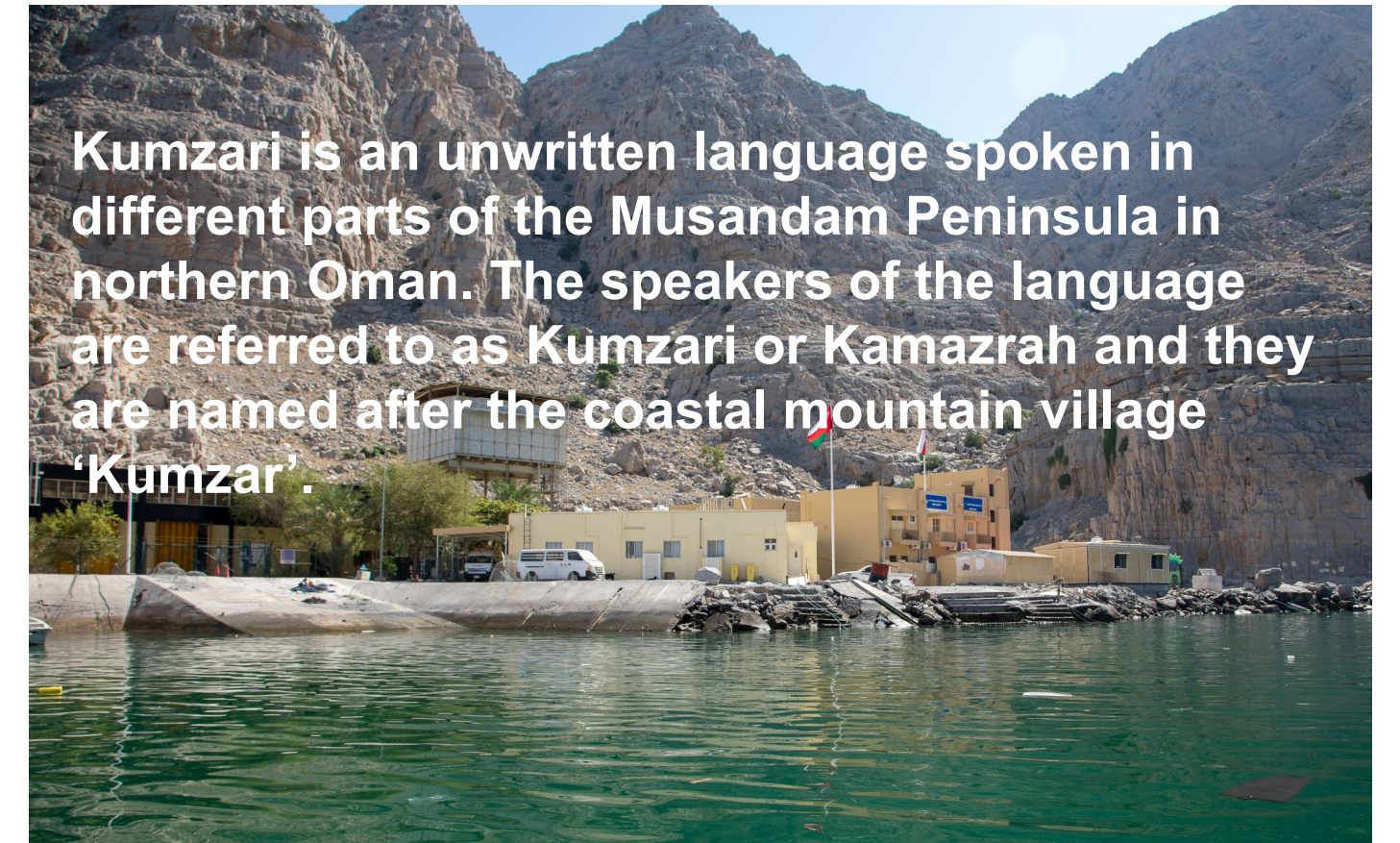
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# Kumzari Language

Dr. Dola Algady







**Kumzari is an unwritten language spoken in different parts of the Musandam Peninsula in northern Oman. The speakers of the language are referred to as Kumzari or Kamazrah and they are named after the coastal mountain village 'Kumzar'.**

**T**he Kumzari tribe forms a part of the Bani Shatair group of the Shihuh Arabs. Traditionally, the Kumzari are fishermen and they rely mainly on fishing for their living. In the past, they mainly used a special type of fishing boat called a 'Bateel'.

### **Kumzar**

In Musandam, the Kumzari mainly reside in Dibba, Khasab, Kumzar and Madha. Kumzar is located at the northernmost part of the Musandam Peninsula in northern Oman. The coastal village overlooks the Strait of Hormuz. In the past, ships would stop at Kumzar to restock some freshwater from the well. According to Kumzari people, the village is named after the huge number of visitors to the village given its strategic location, freshwater source and the fact that Kumzari men were relied on as guides and sailors through the Strait. The word Kumzar is therefore considered a blend between the Arabic words 'kam' and 'zar' which translate into 'how many' and 'visited', respectively.

The coastal village is geographically isolated from the surrounding region. Surrounded by steep jagged limestone mountains from three sides and the sea from the other, Kumzar can only be reached by boat or plane, with boats

being the main transport used by the community. During summer, the Kumzari residing in the village migrate to the oasis towns such as Dibba and Khasab for the date harvest season 'Mawsim AlQeith' and the wedding season.

Upon arrival to the village, the visitor would notice the main valley course 'sikto' which divides the village into two sides. Each side is packed with modern houses with attached goat sheds. Given the small residential area by the coast and the narrow paths between the houses, graves in the pathways and backyards are very common. To the left of the coast, you find a small area called 'Zefah' which has a police station, a desalination plant, a clinic and a school. Another residential part in the village requires a hike across the valley and the mountain dwellers 'koyan' who live mainly there live on agriculture and herding.

### **Kumzari Language**

The Kumzari language is commonly believed to be a mixture of languages such as Arabic, Baluchi, Urdu-Hindi, English, Persian and Portuguese. However, despite the fact that we find lexical borrowings in the language from these languages, recent research claims that Kumzari is an Arabic-Persian mixed language and that it is genetically affiliated with both Indo-European



and Semitic language families and, therefore; it is not possible to distinguish its genetic heritage as being purely one or the other.

Despite the fact that the Arabic language has widespread influence in the region and the speakers of Kumzari are surrounded by native Arabic speakers, the language has continued to survive. The Kumzari people believe in the sustained viability of their language and are committed to its preservation. Kumzari people commonly use their language in communication among each other and teach it to their children. However, with its small population (4500 approx.), unwritten status and the dominance of the Arabic language in the area, Kumzari is readily identified as an endangered language by UNESCO, the Google Endangered Languages Project and Ethnologue.

ation to another four centuries.

The Linguistic Heritage Project is an important project within the Omani Cultural Heritage Strategic Research Program funded by the Ministry of Higher Education, Scientific Research and Innovation in collaboration with the Ministry of Culture, Sports and Youth. The project aims at highlighting the linguistic diversification as a distinctive part of Oman's rich cultural heritage and the fact that the endangered languages spoken in Oman constitute an irreplaceable cultural treasure, not only for the communities who speak them, but also for scientists and scholars. Therefore, the Kumzari language project aims at recording and preserving one of the indigenous languages spoken in Oman.



### **The Documentation of the Kumzari Language Spoken in Oman Project**

An ongoing project funded by the 'Linguistic Heritage' program and run by Dr. Dola Algady aims at documenting the Kumzari language spoken in Oman (contract # TRC/SRG/OCH/4/2020). Dr. Algady and her team believe that it is very important that languages should not be lost since languages are not merely a means of communication that people use to deliver their ideas and thoughts, but they are rather the heritage and legacy of those people. Languages carry their speakers' cultures and their experiences that they preserved and transferred from one gener-

The project aims at archiving and documenting the Kumzari language spoken in Oman. The project team includes academic researchers specialising in linguistics and literature studies, and researchers and trained members from the Kumzari local community. Academic members of the team include: Dr. Dola Algady (principal investigator), Dr. Muna AlBadaai, Dr. Zaineb AlZaghir and Dr. Said AlAmrani from Sohar University and Mr. Hammal AlBaloushi from Sultan Qaboos University. Local team members include: Mrs. Makeyya AlKumzari, Mr. AbdulQader AlKumzari, Mr. Ali Hassan AlKumzari, Ms. Basma AlKumzari, Ms. Muzna AlKumzari, Ms. Ahlam AlKumzari, Ms. Maryam AlKumzari, Ms. Nouf

AlKumzari, Mr. Hassan AlKumzari, Mr. Mustafa AlKumzari and Mr. Abdallah AlKumzari.

The documentation project will result in the creation of accessible interoperable digital repositories of recorded, transcribed and translated set of original Kumzari narratives. Both audio and video recordings will highlight the life, oral literature, culture and traditions of the Kumzari people, and toponyms in Kumzari. This data will be searchable by fellow future researchers and they will be able to focus more attention on such matters related to the linguistic and literary analyses of Kumzari.

The second outcome of the project will be a thematic Kumzari-Arabic dictionary using a special Kumzari orthography developed by the team. The dictionary will include vocabulary related to life, environment, profession, fishing, cultural heritage and traditions. The dictionary will also include information regarding the origin of the Kumzari words and some grammatical information.

Finally, the project also aims to document folktales and children stories in Kumzari. This will encourage the publication of literary genres of folktales and children stories in the Kumzari language and will create a source for the native communities to preserve ancient stories of their indigenous language for the younger generation.

The documentation of the Kumzari project is important and beneficial to Oman as it helps in preserving important traditional knowledge and

the outcomes of this project will be of interest not only to linguists, but also to specialists in other scientific fields including history, anthropology and sociology.

## About Dr Dola Algady

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Dola Algady is an assistant professor in Linguistics in the faculty of Language Studies at Sohar University, Oman. Dola's research focuses on the documentation and revitalisation of the endangered languages spoken in the Sultanate of Oman. She is the principal investigator of two research funded projects. The first research project on the documentation of the Kumzari language spoken in Oman is funded by the Ministry of Higher Education, Scientific Research and Innovation in collaboration with the Ministry of Culture and Sports in Oman. The second research project on the documentation and description of the Modern South Arabian Hobyot spoken in Oman is funded by Sohar University.

Dola received her PhD from the University of Wisconsin, Milwaukee where she studied linguistics and received an assistantship for teaching Arabic and linguistics for university students. Prior to coming to Sohar University, Dola was an assistant professor and the head of the department of English Language and Literature at AlZahra College for Women in Muscat, Oman and an assistant professor of linguistics in the Faculty of Language and Translation at the American university of Madaba in Jordan.





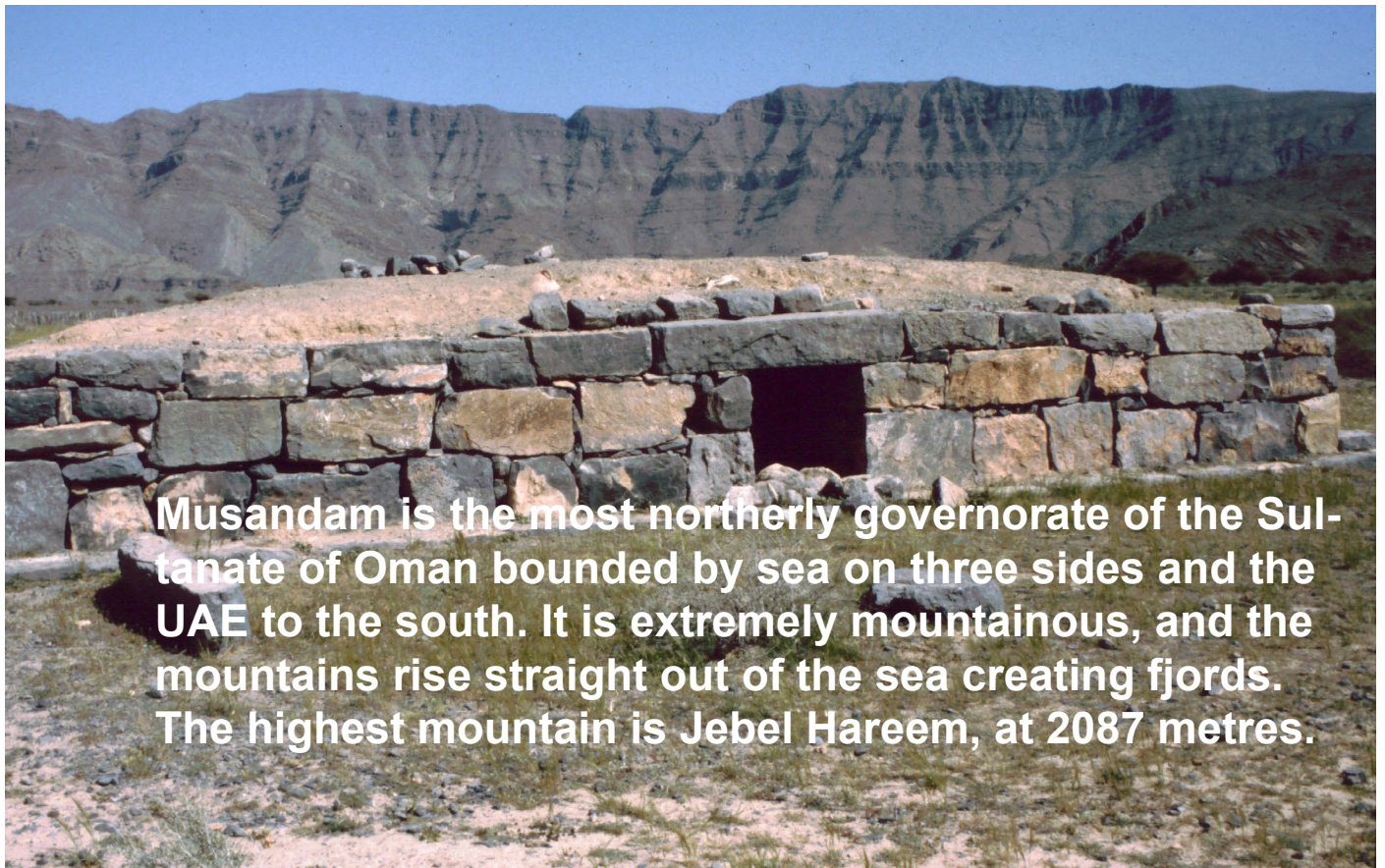


# Reflections on Musandam

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Peter Sichel





**Musandam is the most northerly governorate of the Sultanate of Oman bounded by sea on three sides and the UAE to the south. It is extremely mountainous, and the mountains rise straight out of the sea creating fjords. The highest mountain is Jebel Hareem, at 2087 metres.**

**E**mbodied in the rocks are shell fragments and fossils. Musandam is on a tectonic plate which is gradually slipping under Iran, consequently, there are earth tremors from time to time.

It is very hot for most of the year, temperatures reaching the upper forties centigrade in summer, and dropping to 20 degrees in winter. The mountains act as giant heat-sinks and radiate heat during the day. In the late afternoon the temperature differential between the sea and the mountains changes, causing a desiccating wind to blow. Other strong winds are the shimaal and the naashi, which were strong enough to close the Khasab airstrip, isolating visitors for days at a time, increasing the isolation of the province. The rainy season lasts from November to April, although most rain falls in January and February, causing flash floods in the wadis. Historically, when flooding was severe, children had to be tied to the palm trees to prevent them from being washed away.

The population consists mainly of a tribe called the Shihuh, subdivided into two main groups, the Bani Shutayr and the Bani Hadiyah. They are smaller and more lightly-built than many Arabs. There is speculation, but no evidence, that they are the original inhabitants of Arabia - pushed

back into Musandam's mountain security by Arab invaders of pre-Islamic days. The Shihuh are semi-nomadic - farming their hillside terraces in the winter and living by the coast in summer to fish and harvest dates. The permanent winter accommodation consists of low stone houses that blend almost invisibly into the mountainsides. These houses are unique and called "bait al quf" (house of locks). The floor is a metre below ground and has raised stone slabs for eating, sleeping and storage. They also have large storage pots called khaaris dug into the floor. The door is deeply recessed and has a double locking system for security, hence the name.

In August and September, when the dates are ready for harvesting, they moved to the vicinity of the date palms, mainly in Wadi Khasab, although there are smaller date plantations in some other coastal villages, such as Ghumda and Tibat. They constructed temporary dwellings out of palm fronds called areesh. When the dates were harvested they were sorted by quality and bagged in sacks made of palm fronds. Payment for the labour was made in the form of sacks of dates. Some of these were stacked on top of each other on top of corrugated sheeting in a dark store. The pressure so created squeezed a form of syrup out of the dates, which was col-



lected and stored. This juice is called dibs, and is very popular, eaten with khubs. Their diet was rice-based, with fish or goat or chicken. At night the chickens were put inside palm-frond baskets and suspended from poles to keep them safe from foxes – the original “chicken in the basket”!

The men carry a walking stick, called a Yurth, rather than a khanjar, the distinguishing feature of which is the handle, which is a small axe-head, about two inches long, and traditionally was used as a weapon. After a celebration such as a wedding, they frequently perform a nidhiba. This consists of a group forming a semicircle while the leader blows into a goat skull to produce a sound like a conch shell, while the rest of the group chant praises.

sand, of which the majority was concentrated in the capital, Khasab, where many were employed by the government.

In the mountains there can be found ancient rock drawings of warriors, boats and animals decorating the rocks. In Wadi Rawdah there are the remains of a large pre-Islamic village near which is a cemetery that has gravestones on which are depicted horsemen, palm trees and jewellery. Wildlife is scarce, but leopards, Caracal lynx, gazelles, foxes and hedgehogs do exist there.

When I arrived in Musandam in 1980 I knew nothing of the above and the mapping was very poor. There were no roads connecting Khasab with the outside world at that time.



The communities living in the mountains had been isolated for centuries and the coastal villages could only be reached by boat. Agriculture in the mountains was of the ‘postage stamp’ variety, tiny isolated fields surrounded by low stone walls, to facilitate the trapping of rainwater and its accompanying silt. Rain water was collected in large birqats, either dug out of the ground, or formed by blocking off fissures in the rocks. Crops grown included barley, wheat, onions, radishes and alfalfa. Goats and chickens were kept in the coastal villages.

Most of the men worked in the UAE and returned at weekends, leaving the women and children in the villages. The population of Musandam was estimated in 1982 at approximately 15 – 17 thou-

I noted the locations of villages when flying over by helicopter, and walked to them following difficult paths. In places the only indication of the existence of a path on rock was the patina caused by bare feet over hundreds, if not thousands of years. This made them only visible in the early morning or late afternoon, when the sun was low. I visited every village several times at different times of the year in order to confirm the movements and tribes of the inhabitants. Sometimes it was possible to visit several villages in one day. On other occasions, to the more remote villages, it necessitated a three-day trip, carrying all my water, shelter and food, because I had no way of knowing if the village would be inhabited or not. On my arrival in a village the Shihuh would be amazed that a lone European would sudden-



ly appear, and they were always very hospitable, offering refreshments in the form of qahwa, khubs, dibs and dates.

The original documentation of this survey is held by the Middle East Centre Archive at St Antony's College, Oxford.

## About Peter Sichel

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The author served in the British Army and the Sultan of Oman's Army in the 60s and 70s. In 1975 he worked for the Civil Aid Department of the Wali of Dhofar's office, and was responsible for overseeing the development of the jebel area in the wake of the conflict. In 1980 he was appointed Director of Operations of the Musandam Development Committee, and was responsible for coordinating the activities of eight ministerial departments in the governorate. He returned to England in 1984, and now rescues animals, and is the current editor of Mars and Minerva, being the Journal of the Special Air Service.





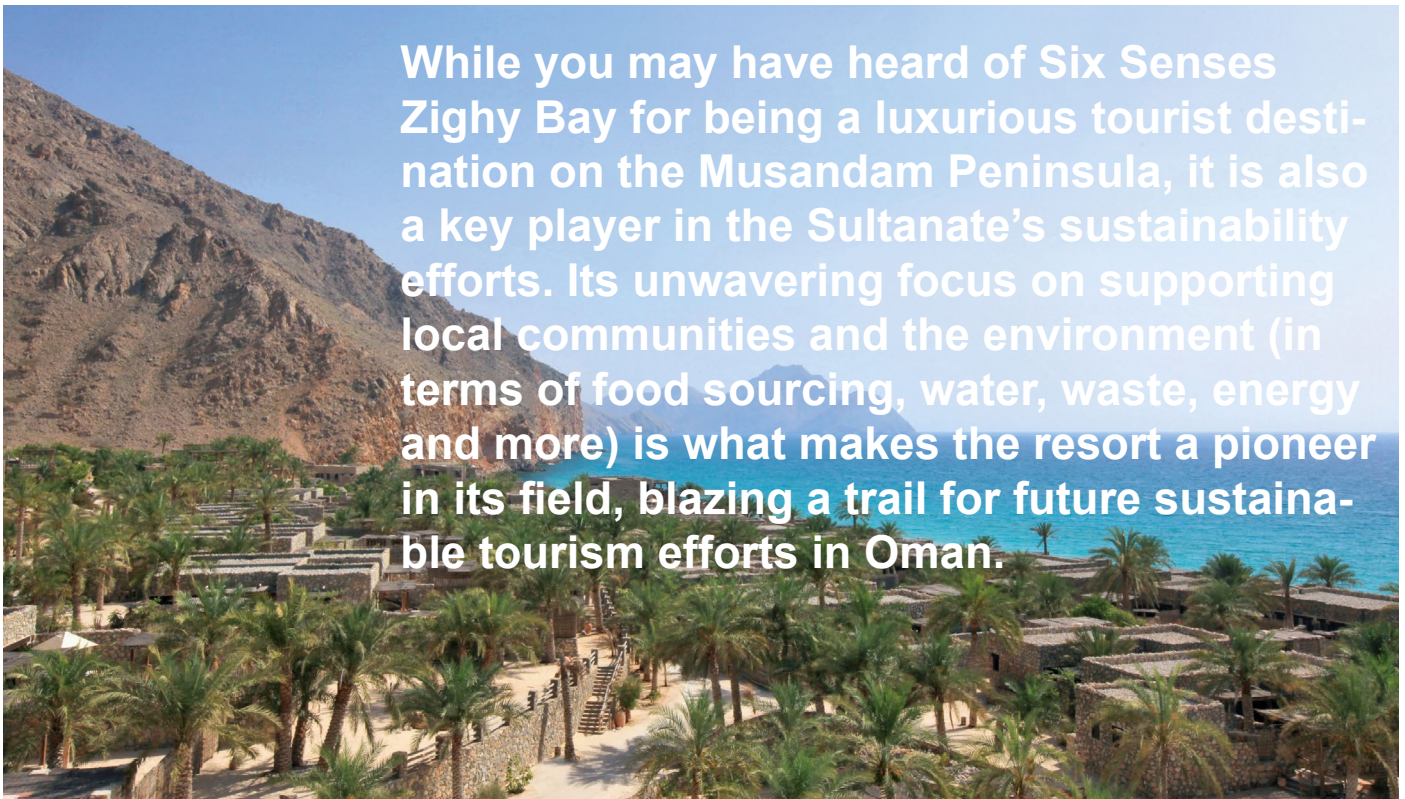
A scenic view of a resort pool area. The pool is filled with clear, turquoise water, reflecting the surrounding environment. The pool deck is paved with light-colored stone tiles. Several orange lounge chairs are arranged around the pool, some under large, light-colored umbrellas. The background features a lush garden with many palm trees and other greenery, set against a backdrop of rugged, brown mountains. The overall atmosphere is serene and luxurious.

# Sustainability & Social Responsibility

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Ziggy Bay





While you may have heard of Six Senses Zighy Bay for being a luxurious tourist destination on the Musandam Peninsula, it is also a key player in the Sultanate's sustainability efforts. Its unwavering focus on supporting local communities and the environment (in terms of food sourcing, water, waste, energy and more) is what makes the resort a pioneer in its field, blazing a trail for future sustainable tourism efforts in Oman.

**M**ore than 1,000 palm trees are located throughout the grounds, providing 12 different varieties of dates. The property utilises this local, organic favourite in a multitude of ways following the harvest season from June to August. Two months after pollination, the colour of these fruits will change, when 50% of the bunch has turned brown or black which indicates they are ready to be harvested. They are then sorted into edible and non-edible piles, washed, dried under the sun, and packaged into airtight containers to prevent further ripening.

The dates are then put into smoothies, snacks and in date syrup, as part of the efforts to include local produce in the kitchens. Some dates are also crushed and added to other natural ingredients to create authentic oils used in the Six Senses Spa. The remainder are a popular source of food for the local goats that roam freely.

Zighy Bay has an organic garden, comprised of approximately 30 different types of herbs, used in food, drink and spa treatments. Another organic farm has been established in Dibba which provides fresh, locally produced fruits, vegetables, and animal products such as milk, eggs, cheese, yogurt and honey. The Dibba farm has two greenhouses, Oman's first artisanal cheese factory, and livestock such as cows, goats, chickens, and bees.

There are efforts underway with the nearby vil-

lage of Zighy and the local municipality to plant coconut trees along the coastline of Dibba main road. There is also a strong emphasis on sourcing fish locally as many of the local inhabitants are fishermen by profession. The chefs alter their menus around what is being fished locally or grown at the farms that season.

## Water

The water initiative system is a straightforward example of environmental responsibility. There is a reverse osmosis (RO) plant set up and a water refinery, creating a self-sufficient water supply and reducing the carbon footprint. This works by filtering seawater before it is passed through the RO plant, which removes salt. 25% of the water is refined for pure drinking water (bottled on site), providing around 150 million litres are made every year. The rest is then used for the rest of the site and the salt-water pool, before being returned to the sea.

The resort has its own closed circle sewage treatment plant on site, where 100% of the sewage effluent is recycled and used for drip irrigation for landscaping, resulting in zero wastewater. The onsite wastewater treatment plant provides grey water used for irrigation using a state-of-the-art bioremediation for final stage wastewater treatment, using a reed bed for stabilisation and sedimentation.





## Oceans

In terms of protecting the coastline, a collaboration with the charity 'The Olive Ridley Project' was launched in January 2018 to encourage participation in cleaning up beaches and ocean beds. Ghost nets found nearby the resort's bay are being cleared through the training received from a marine biologist onsite and in close collaboration with the Ministry of Environment and Climate Affairs (MECA) in Oman.

In partnership with MECA, some upcoming projects include marine and turtle conservation and rehabilitation, ghost gear removal campaigns, educational campaigns, bio-degradable trap doors, underwater clean ups, and coral restoration. A mega-fauna database of the marine life around the resort is also being compiled, in conjunction with the Olive Ridley Project.

## Energy

All the lighting is currently being replaced with LEDs. Motion detectors are in place to ensure that no electricity is wasted, and outdoor lighting is on sunset timers.

Regarding heating and air conditioning, there is a building envelope system in place. This involves insulating the building well, building an

'envelope' separating the interior from the exterior, thus preventing heat entering the building in the summer and escaping in the winter months and saving energy.

There are myriad issues with using batteries – they contain toxic materials like nickel and cadmium, which cause damage to humans and the environment, they cause soil and water pollution, they endanger wildlife, and they are very tricky to dispose of responsibly, especially in Oman. Because of this, rechargeable batteries are used, which have a much longer life span and low turnover ratio. Hybrid cars are also used.

## Waste

85% of the waste is recycled on site and there is a heavy focus on reducing, reusing and recycling. Minimal single-use plastic waste is created, as Zighy Bay uses glass water bottles and paper straws. Even plastic cup lids have been replaced with compostable corn starch alternatives.

There is a return programme for Styrofoam and cardboard, so external suppliers take back waste packaging so it can be used in the future.

The Earth Lab is also a key part of the recycling efforts. The Earth Lab is a space where used products (for example wastepaper, glass



and candlewax) are turned into something new. Here, cold process soaps, melt and pour soaps, bath scrubs, bath bombs, bath teas and shampoo bars are made using natural ingredients from the organic garden. The Earth Lab is a recycling space where used products are turned into something new.

## Local Community

Ziggy Bay has links with some local schools in the area, which it supports through funding, education, infrastructure and strategic help. There is also a special emphasis on educating and powering the girls at local school Sakina Bent Al Hussein. In other education ventures, English classes are offered to the local community, the Ministry of Environment and municipality staff.

There are also partnerships and planned CSR (Corporate Social Responsibility) activities planned with the municipality, the Ministry of Environment, the Ministry of Education, the Centre for Handicapped and the Oman Women's Association. One recent CSR project was building a new laboratory for the local hospital.

A local sustainability fund is set up. As part of this, 0.5% of Ziggy Bay's revenue, 50% of water sales in F&B outlets, soft toy sales and all voluntary donations from guests go to a dedicated sustainability fund. This money is earmarked for community related projects.

## Cleaning

For cleaning, the resort uses environmentally friendly detergents and biodegradable bins and gloves. Eco-friendly chemicals are used for housekeeping and pest control. There is also a

composting machine which converts 100% of organic waste into compost for the farm and organic garden.

'Bukhoor' is burnt as a fragrance, so no aerosol-based room fresheners, which contain chemicals and pollutants, are used. The use of locally produced resins (such as frankincense) not only supports local business, but also ties in with the traditional culture of Oman.

## Beds

Natural handmade mattresses are made from organic and sustainably sourced raw materials, all of which are biodegradable and comply with fair trading policies. They are made from organic lambswool – soil association certified – which is ideal for asthma and allergy sufferers. All the wool is a natural fire retardant, as well as being anti-dust mite, anti-bed bug, and anti-moth.

The beds also use organic latex, which comes from the world's only organic certified rubber plantation, and FSC-certified solid pine wood, where all components are glued and screwed organically. Bed parts are sourced sustainably and come from fair trade farms, and come in eco-friendly packaging made from potato starch and a mixture of recyclable and renewable paper.

Other sustainability initiatives include sustainable accounting and reporting, an emphasis on transparency and benchmarking against other leading sustainability hotels, and having a sustainability manager onsite full-time. Ziggy Bay hopes to be considered a leading force, prompting more and more sustainable tourism projects to be established.

