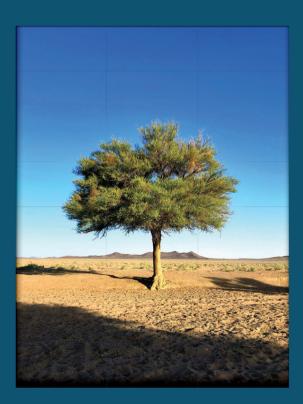
# Diversity across the Arabian Peninsula Language, Culture, Nature

# Edited by Fabio Gasparini, Kamala Russell and Janet C. E. Watson







https://www.openbookpublishers.com

©2024 Fabio Gasparini, Kamala Russell and Janet C. E. Watson. Copyright of individual chapters are maintained by the chapter author(s).



This work is licensed under an Attribution-NonCommercial 4.0 International (CC BY-NC 4.0). This license allows you to share, copy, distribute, and transmit the text; to adapt the text for non-commercial purposes of the text providing attribution is made to the authors (but not in any way that suggests that they endorse you or your use of the work). Attribution should include the following information:

Fabio Gasparini, Kamala Russell and Janet C. E. Watson, *Diversity across the Arabian Peninsula: Language, Culture, Nature.* Cambridge, UK: Open Book Publishers, 2024, https://doi.org/10.11647/OBP.0411

Further details about CC BY-NC licenses are available at http://creativecommons.org/licenses/by-nc/4.0/

All external links were active at the time of publication unless otherwise stated and have been archived via the Internet Archive Wayback Machine at https://archive.org/web

Any digital material and resources associated with this volume will be available at https://doi.org/10.11647/OBP.0411#resources

Semitic Languages and Cultures 28

ISSN (print): 2632-6906 ISSN (digital): 2632-6914

ISBN Paperback: 978-1-80511-337-9 ISBN Hardback: 978-1-80511-338-6 ISBN Digital (PDF): 978-1-80511-339-3

DOI: 10.11647/OBP.0411

Cover image: Photo by Rabah Al Shammary, titled 'Wild Acacia tree, Ha'il, Arabian Peninsula', July 26, 2021; https://unsplash.com/photos/green-tree-on-brown-sand-under-blue-sky-during-daytime-e-UPgjjEwCM?utm\_content = creditCopyText&utm\_medium = referral&utm\_source = unsplash. Cover design: Jeevanjot Kaur Nagpal

The main fonts used in this volume are Charis SIL and Scheherazade New.

# AN ECOLINGUISTIC APPROACH TO KUMZARI: ECOCULTURAL ASSEMBLAGES OF LANGUAGE AND LANDSCAPE IN KUMZAR<sup>\*</sup>

Emily Jane O'Dell

#### 1.0. Introduction

Due to the symbiotic relationship between the indigenous language of Kumzar and the marine ecology of Kumzar's natural environment, Kumzari language, identity, and culture are deeply ecocentric in nature. The diversity of environmental terminology in Kumzari reflects the biodiversity of the Musandam Peninsula and the Strait of Hormuz, along with the cultural adaptation of Kumzari speakers to the region's ecosystems. Daily life in the fishing village of Kumzar is intimately connected to the sea, as illustrated through the numerous Kumzari words and phrases related to fishing, ethnozoological knowledge, tides, and coastal watching. The marine ecosystem and aqua-culture of Kumzar are embedded in the Kumzari language and the sea-related stories of

<sup>&</sup>lt;sup>\*</sup> Special thanks to Ahlam Al-Kumzari for her helpful insights into Kumzari language and culture and to Cathy Birdsong Dutchak and Jacques Van Dinteren for permission to reproduce their photographs of Kumzar.

several Kumzari oral traditions. The endangerment of Kumzari threatens not just the language's longevity, but also the traditional bio-ecological awareness and ecological labour knowledge related to sardine fishing, goat husbandry, and palm harvesting contained and expressed within it. Centring the ecological dimensions and assemblages of Kumzari identity, language, and labour is essential for considering how a sustainable future for the people of Kumzar and the endangered Kumzari language itself might be imagined and cultivated.

Kumzari is spoken primarily in the fishing village of Kumzar, located on the tip of the Musandam Peninsula on the Strait of Hormuz in the far north of the Sultanate of Oman. It is also spoken in nearby cities in Oman, like Dibba ( $D\bar{a}ba$ ) and Khasab ( $X\bar{a}sab$ ), a few coastal cities of the United Arab Emirates, and Larak Island ( $R\bar{a}rik$ ) in the Islamic Republic of Iran. Speakers of the language on Larak Island call their language variety  $R\bar{a}rik\bar{i}$ . Thus, there are two main groups of Kumzari speakers on both sides of the Strait of Hormuz—the Kumzari inhabiting the Musandam Peninsula and the Laraki, who reside primarily on Larak Island in Iran. This chapter focuses on the larger group of speakers, the Kumzari of Musandam, who until relatively recently lived a very traditional lifestyle, as Kumzar did not get electricity (*kahraba*) until 1980.

Situated in an isolated cove between the mountains and the sea, villagers in Kumzar have traditionally been almost completely dependent on nature, which explains Kumzari's unique ecological lexicon. For instance, several Kumzari words related to the landscape of Kumzar have no equivalent word in English. These landscape-specific terms capture the unique features of the aqua-ecosystem of Kumzar and exhibit the attentional field and directional orientation of Kumzari in relation to the sea. For instance, the word *pišt* means 'shallows far from land'. Likewise, the Kumzari verb *baraḥa* 'appear under water' has no English equivalent, and its existence is clearly connected to the aqua-oriented lifestyle of Kumzar. Terms like *barḥ* 'appearance under water' and *ma'daf* 'seamount' illustrate the orientation and awareness of Kumzari speakers towards what is beneath the surface of the water, as the underwater landscape and the species who inhabit it are essential components of the daily labour and livelihood of Kumzari fishermen.

Kumzari is an endangered language due to its small population of speakers, unwritten status, and ubiquitous use of Arabic in the education system and other sectors of daily life in Kumzar. Over the past several years, a growing number of Kumzari families have begun speaking Arabic instead of Kumzari to their children in the home, due to the "internationalization of outsiders' negative attitudes toward the Kumzari language" (Anonby 2011, 39). Thus, "[t]hrough the official educational apparatus, mainly, with its vast social and symbolic impact," the official language of Arabic "enjoys dissemination at the optimal age of language acquisition in the case of children" alongside a "discourse that denigrates and stigmatizes" Kumzari, which is presented as a language "without any fixed and written standard but purely as oral, dialectal and secondary"-and thus vulnerable to disuse (Bastardas-Boada 2017, 8). As a result of these factors, UNESCO has classified Kumzari as severely endangered. Today, Kumzari is

spoken by only around four-thousand speakers, around 1,500 of them residing primarily in Kumzar, with summer migration to nearby Khasab.

With only a few thousand speakers of Kumzari, the language is teetering on the brink of extinction, though there are increasing efforts among academics and speakers to preserve the language. Languages in general around the world are currently in crisis, as "intergenerational transmission of half the world's languages is collapsing" (Roche 2022). This "Gramscian crisis of linguistic justice" (Roche 2022) and language oppression worldwide, ignited by the forces of nationalism, colonialism, racism, and capitalism, has prompted linguists to start considering "positive interventions in the global system towards a future of greater linguistic justice" (Roche 2022). Within academia, Kumzari had been almost completely ignored in scholarship until recently (Anonby 2008; 2010; 2011; Al-Jahdhami 2013; al Kumzari 2009; van der Wal Anonby 2015). As a result, a written Kumzari alphabet (Anonby 2010), grammar (van der Wal Anonby 2015), and dictionary (Anonby and van der Wal Anonby 2011) have been produced.<sup>1</sup> Thus, Kumzari has not yet fully undergone a standardisation process.

Kumzari has thrived for centuries as an orally transmitted language, but the powerful forces of modernisation, globalisa-

<sup>&</sup>lt;sup>1</sup> This chapter uses the Kumzari writing system as developed by Anonby (2010) and vocabulary from van der Wal Anonby's grammar (2015) and dictionary (Anonby and van der Wal Anonby, 2011), in addition to findings from the author's own field-research in Kumzar (2017) and from Kumzari informants from Kumzar.

tion, and nationalism have brought new threats to its survival through the hegemony of Arabic and changes to the coastal environment and species inhabiting it. Modernisation processes have "wrought important ecosystemic changes that frequently have an impact at the level of language" (Bastardas-Boada 2017, 7). Kumzari's status as an 'unwritten' language does not necessarily doom it to extinction (as it has thrived until the present day in oral form only), but the rapid pace of modernisation poses a distinct new threat.

As local languages continue to be replaced by hegemonic languages, like English, under the powerful and accelerating forces of globalisation, it is not just language that is being lost, but also the sustainable local cultures and traditional ecological knowledge embedded in endangered languages. In Abram's (1996) book, The Spell of the Sensuous: Perception and Language in a More-than-Human World, he argues that nature, or the environment at-large 'the more than human world', shapes language in oral cultures, thereby empowering its speakers to become more attuned to their environment and live sustainably within it. Accordingly, living in 'literate' cultures divorces people from nature and related ecological awareness. Due to the dependence of Kumzari villagers on their environment for survival, the hegemony of Arabic and English threaten not just the language of Kumzari, but also the indigenous environmental knowledge embedded within it and the community's collective awareness of local nature.

Kumzari identity itself is an ecosystem of affiliations that are linguistic, cultural, tribal, and sectarian in nature. The Kumzari of Musandam are divided into three clans (*jēluman*): the Aql, Ğušban, and Bō<sup>c</sup>in. While Kumzari in Musandam identify ethnically with their language community, they also view themselves as a sub-group of the Šiḥuḥ (Thomas 1929, 75), the dominant Arab population of the Musandam Peninsula (al-Kumzari 2006), and they consider themselves members of the Šatair (*štērī*) confederation. The Kumzari of Musandam and Laraki are Sunni Muslims, which distinguishes them from the dominant sects of Islam in their countries, as Oman is predominantly Ibadi and Iran Shi'a.

# 2.0. *Khoren* as Refuge and Weapon: Ecosystems of Maritime Violence, Imperialism, and Slavery

Today, the isolated village of Kumzar can be reached by only sailing from Khasab on a *dhow* (*lanj*) for around two hours, or by taking a one-hour motorboat ride. Located on the tip of the peninsula (*xarțum*) of Musandam, Kumzar is in geographic proximity to *Jēẓurtō* (Goat Island), *Quṣm* (Qeshm Island), *Rārik* (Larak Island), *Gumrō* (Bandar Abbas), *Qdōrō* (Qadr), *Qēdē* (Qada), *Pxa* (Bukha), and *Msandam* (Musandam Island). While the town is often described today as 'isolated' in western discourse, in the past Kumzar served as a important geographic location between the trading centres of Zanzibar, Muscat, Basra, Persia, and India, because of the ubiquity of sea travel in the days before road and air travel. In fact, Kumzar played an essential role in providing fresh water for passing ships, as did Khark Island in the northern Persian Gulf. Kumzar's geographic location in the Strait of Hormuz has been entangled in ecosystems of maritime violence, slavery, and imperialism over the past few centuries. There is a long and complex history of 'pirates' in Musandam along the 'Pirate Coast', stretching from modern-day Oman to the Qatar Peninsula. Edward Balfour (1885, 225) mentions in his writing that the Persian Gulf coast from "Kasab [Oman] to the island of Bahrain" bore "the designation of the Pirate Coast"—a designation employed from the seventeenth to the nineteenth century. The coastal landscape of Musandam has long been a contested space of sovereignty, commercialism, and imperialism.

The Musandam Peninsula's most recognisable natural feature is its 'fjords', which are used today in advertising campaigns to market the region for tourist consumption. In Kumzari, the word for the peninsula's cliffs jutting from the water is *khor* (PL *khoren*). In the past, the *khoren* of the Musandam Peninsula served as convenient spaces of refuge for those conducting raids on passing vessels. The inhabitants of the 'Pirate Coast' had the advantage of being familiar with the geomorphological features of the *khoren*, along with the region's wind patterns, currents, and coves, in conducting raids against large British vessels, which were not as familiar with the topography and inlets of the region. British and Indian merchant ships were plundered for goods, while Arab merchant ships and *hajj* vessels were attacked for merchandise and slaves.

Long before the British sought to dominate trade in the Persian Gulf, maritime violence was used by coastal sheikhs and communities to further local expansionist political projects and assert sea power over trade routes and coastal waters. In the wake of the expulsion of the Portuguese from Oman, Omani naval fleets began to dominate trade in the Persian Gulf in the eighteenth century. As Balfour (1885, 224) explains: "In recent times, the Muscat Arabs, during the period of their ascendency, from 1694 to 1736, were highly predatory; but it was not until 1787 that the Bombay records made mention of the systematic continuance of piracy." Muscat eventually became the prime portal through which naval traffic flowed into the Persian Gulf. By the end of the eighteenth century, it is "estimated that about five eighths, ad valorem, of the whole trade for the Persian Gulf passed through Muscat" (Fukuda 1992). According to Biddulph (1907, 73), "[t]here were no more determined pirates than the Arabs of Muscat". Thus, 'piracy' in the Persian Gulf was enacted by not only local inhabitants of the 'Pirate Coast', but Muscat Arabs, too.

Despite the ubiquity of maritime violence in the Persian Gulf and the Gulf of Oman, there were geographical, physical, and cultural distinctions drawn between those enacting such violence from the 'Pirate Coast' and those from other locales like Muscat. As Balfour (1885, 225) notes:

The inhabitants of the Pirate Coast consider themselves to be far superior to either the Bedouin or town Arab. The latter, especially those from Oman, they hold in such contempt, that a Muscatti and an arrant coward are by them held to be nearly synonymous. They are taller, fairer, and in general more muscular than either of the above classes, until they attain the age of 30 or 40 years, when they acquire a similar patriarchal appearance. These Arab 'pirates' and coastal imaginaries found their way into British literature as well. For instance, the book *Captain Antifer* by Jules Verne (1895, 122) mentions "pirates, who are rather plentiful in the Straits of Ormuz." Even the characteristic eyepatch of a 'pirate' was inspired by the Qāsimī 'pirate' Raḥmah bin Jābir al-Jalhamī (Aboelezz 2022). In nineteenth-century Britishcentric narratives, both bureaucratic and literary, Muslim Arab 'pirates' of the 'Pirate Coast' were inherently violent and wicked, and thus British guidance, laws, and dictates were branded as necessary to 'keep the peace', enforce morality, and secure the trading routes for vessels of the East India Company, which held a monopoly over trade in the Indian Ocean.

The British branded 'pirates' from the Al Qasimi tribal confederation, based on the western coast of the Musandam Peninsula, as the main perpetrators of maritime violence in the Persian Gulf. The designation of the Qawasim as 'pirates' followed the refusal of the British to pay tolls that the Qawasim imposed on all trade in the Strait of Hormuz (Allday 2014). Thus, in the late eighteenth and early nineteenth centuries, British officials attached to the Bombay Government (and its naval arm, the Bombay Marine) who oversaw imperial interests in the Persian Gulf referred to the Qawasim (SG Qasim) as "Joasmee" pirates (Davies 1997). Accordingly, British authorities, newspapers, and writers framed the Qawasim as inherently violent, menacing, dishonest, and immoral. For example, in Sketches of Persia, From the Journals of a Traveller in the East (1828), John Malcolm, a British customs official who served in the Persian Gulf from the eighteenth century to the nineteenth century, recounts an Arab servant of his

saying about the Qawāsim: "their occupation is piracy, and their delight murder; and to make it worse, they give you the most pious reasons for every villainy they commit" (Malcolm 1828, 27). The landscape of their main port-city of Ras al Khaimah, with its shallow inlet where pirates harboured their fleets, empowered the Qawāsim to launch swift and successful attacks on British vessels of the East India Company, which, in turn, further fuelled the British demonisation of the Qawāsim and inhabitants of the 'Pirate Coast' in general.

The British authorities framed maritime violence along the 'Pirate Coast' as an immoral act resulting from an inherent character flaw in the Arab coastal inhabitants and their rulers. The fierce moral condemnation by the British of the Qawāsim 'pirates' aimed to legitimise British imperialism, delegitimise rulers on the 'Pirate Coast', and condemn Qawāsim-organised attacks on the vessels of the East India Company. It also empowered the British to undermine the political sovereignty of the Qawāsim (Suzuki 2018) and herald themselves as the 'civilised' and 'moral' protector of these prime trade routes. The British designated themselves the guarantors of security in the Persian Gulf, and, as they had done in India, established a protection racket to insulate the region and expand their influence.

Until relatively recently, western scholarship has recycled the British designation of 'pirate' to describe the maritime violence along the 'Pirate Coast'. Over the years, however, scholars and even the ruler of Sharjah, Dr Sheikh Sultan bin Muhammed al Qasimi (Al-Qasimi 2017), have challenged this imperial designation and narrative. In his book, *The Myth of Arab Piracy in the* 

*Gulf*, al-Qasimi argues that the British strategically and unfairly labelled the Al Qawasim tribe 'pirates' to eliminate Arab trade with India, enable the East India Company to dominate the waterways without interference or competition, and justify violent attacks against the coastal inhabitants at a time when the British Empire was claiming extra-national sovereignty over international waters and trade. Recently, more scholars have critiqued British-centric narratives to consider whether these 'pirates' were instead collectively challenging British imperialism and European commercial interests, exercising autonomy and authority in their own independent lives (Hightower fc.), or, as James Onley (2009) has suggested, merely following the orders of their rulers. Whatever their intentions, so-called 'pirates' around Musandam were not just a local threat to British merchant shipping and trade, but a global threat to the imperial, capitalist economic world order emerging at the time.

To control Persian Gulf trade, the British militarised the coveted waterway. As Edward Balfour (1885, 224) explains: "The British continue to guard against piracy in the Persian Gulf up to the present day, and armed ships of the Indian and British navies, all through the close of the 18th and in all the 19th century, have been employed there in protecting commerce." British infiltration and militarisation of the Persian Gulf was directed more from British India than London (Crouzet 2019), as the British sought to establish a buffer zone in the Persian Gulf around India to protect their trade routes and guard against French penetration.

Musandam's landscape, with its shallow inlets and rocky shoreline, aided the coastal inhabitants in their resistance to British imperial penetration of their commercial waterways and trade routes. Nature was, in effect, their best weapon. Until the British survey of the Persian Gulf began in 1820 off Ras Musandam in Oman, the khoren and inlets of the Musandam Peninsula had not been effectively mapped by Europeans, which gave the coastal inhabitants an advantage in using the local landscape and seascapes to their own advantage for hiding and launching raids. Europe's navigational knowledge of the Persian Gulf at the time, including of the Musandam Peninsula and Strait of Hormuz, was very limited, as European maps showed only one basic route<sup>2</sup> with a single line of soundings and no additional details about the coastal topography (Peszko 2014). The coastal topographical information captured in the survey of the 1820s, conducted by Bombay Marine officers, bolstered British political, economic, and commercial interference in the region, as it supplied them with more knowledge on the shorelines, especially uncharted shoals, harbours, and wind and current patterns, in addition to the tribal, cultural, and religious identifications and expressions of the coastal inhabitants on both sides of the Persian Gulf. Foucault once asked of geographers: "What are the relations between knowledge (savoir), war and power? What does it mean to call spatial knowledge a science? What do geographers understand by power?" (Crampton 2007, 33). The British employed the

<sup>&</sup>lt;sup>2</sup> See 'Nautical Chart of the Persian Gulf [2r] (1/2)', British Library: Map Collections, IOR/X/414/220, in Qatar Digital Library, https://www.qdl.qa/archive/81055/vdc\_100023733662.0x000004.

discipline of geography and the practice of cartography in the service of empire and acquisition of sea power in the Persian Gulf, robbing the coastal inhabitants of their advantage in using the landscape to hide and mount attacks.

Though maritime violence was also waged by European imperial powers in the Persian Gulf and Indian Ocean, this violence was not considered by the British to be 'piracy'. In the sixteenth and seventeenth centuries, the Portuguese waged "piratical" raids for goods and slaves in the Persian Gulf (Pearson 1981, 32). Later, eighteenth-century British privateering (Starkey 1990; 1994) and the economic nationalism of mercantilism in the Atlantic 'New World' gave rise and shape to European piracy in the Indian Ocean (McDonald 2022) and Persian Gulf. After all, the British Empire had been enriched by privateering ventures in the Caribbean. From British custom officials collecting tolls in the 'New World' to East India Company vessel operators attacking communities on the 'Pirate Coast' in raids and the Anglo-Qasimi wars, British enterprises engaged in the same 'piratical' actions for which they vilified inhabitants of the 'Pirate Coast'. The interconnectedness of the Indo-Atlantic world through the prism of 'piracy' is only now beginning to be explored in scholarship on European imperialism.

Pearling ships along the 'Pirate Coast' also participated in maritime violence in the Persian Gulf. Balfour (1885, 225) explains:

The Beniya tribe inhabit the most northerly district of Oman, called Sir (Seer). The tribe has three branches– Beniya, Manasir, and Owaimir.... [T]he coast dwellers fish in small boats, and dive for pearls. Their pearl fishery is accounted to produce 10,000 tomans yearly. They seize the small boats that approach their coasts.

Balfour was referring to the Bani Yas tribal confederation of Abu Dhabi in Trucial Oman, composed mostly of the Rumaithāt, Rawashid and Al bu Falasah sections. The reference to Sir (صير) is to Bani Yas Island in today's UAE (جزيرة صير بني ياس). As Edward C. Ross (political resident at the time) noted, pearl diving was "carried on almost entirely by domestic slaves" (Hopper 2015, 143)—a history that has been almost completely neglected in scholarship (Willis 2016). Because enslaved "Africans were essential to the massive Gulf pearling industry" (Hopper 2015, 80), including in Trucial Oman, maritime violence around the Musandam Peninsula included slavery (O'Dell 2020), which was not abolished in Oman until 1970.

Though Kumzari villagers did not have pearling boats in Kumzar, some did participate in the industry. Lorimer (1908, 1040) explains: "The Kumzaris have no pearl-boats of their own, but a few of them go to the banks<sup>3</sup> on Sharjah and Dibai vessels," and during the seasonal migration to "Khasab and Dibah [Dibba]," the women would "go to the date harvest there or elsewhere, the men to the date harvest or pearl fishery, and the 3 or 4 individuals who remain take charge of the flocks of the absentees." It is likely that on the pearling vessels from Sharjah and

<sup>&</sup>lt;sup>3</sup> For a map of the pearl banks around Kumzar, Musandam, and elsewhere in the Persian Gulf, see Shaykh Mani<sup>,</sup> ibn al-Shaykh Rashid Al-Maktum, 'A Map of Pearl Banks in Persian Gulf' [13r] (1/2),Library: India Office Records British and Private IOR/R/15/1/616, f 13, Papers, in Qatar Digital Library. https://www.qdl.qa/archive/81055/vdc 100023403859.0x000019.

Dubai, as well as in Khasab, Kumzari villagers would have encountered enslaved African pearl divers.

Enslaved pearl divers on the Pirate Coast knew how to stealthily navigate through Musandam's waterscapes and some even stealthily climbed onto British ships in hopes of being freed. After a pearl diver named Joah, who had been enslaved in Dubai, climbed aboard the British cruiser May Frere in 1873, Major Grant, the resident ranking officer onboard, granted him asylum. This triggered a diplomatic maelstrom back in the United Kingdom, where authorities argued that such actions would bankrupt Arab slave owners, sow distrust, and damage British interests in the Persian Gulf. In the words of Edward C. Ross, if asylum were to be granted to fugitive slaves from the pearling industry: "We should no longer be looked on as the friendly protectors of the maritime Arabs" (Hopper 2015, 143). Further, a commander would be incentivised to steal pearling boats "on account of the head money he would be entitled to for them" (Hopper 2015, 143). As a result, the Admiralty Office issued 'Circular No. 33' (31 July 1875) to order all those aboard Her Majesty's ships and vessels to deny refuge to fugitive slaves. The British government's resistance to abolition in the Persian Gulf in the interest of preserving British economic interests demonstrates that 'abolition' was merely a tool for imperial ends when it suited the crown, not a moral imperative or unwavering policy commitment.

The nineteenth-century landscape of Musandam and the Persian Gulf was captured through warfare and lawfare waged by the British to assert British supremacy over the waterway. After fifty Qawāsim ships raided the coast of Sindh in a series of attacks in 1808, the British Royal Navy ransacked the 'Pirate Coast' in 1809–1810, laying waste to the Qawasim capital of Ras Al Khaimah, other coastal and island communities (including Qeshm Island, which reverted to the Imam of Muscat), and hundreds of ships. A second, even larger campaign waged by the British (led by Major-General Sir William Grant Keir, with a combined force of the East India Company's Bombay Marine [Indian Navy], British Royal Navy, and Omani Navy under Sayyed Sa'id, the Sultan of Muscat) against the Oawāsim's ports in 1819 forced sheikhs ruling the major ports of the Arabian Peninsula in the Persian Gulf to sign the General Maritime Treaty of 1820 (Sato 2016; Balfour-Paul 1994; Dubuisson 1978). This treaty claimed to establish "a lasting peace between the British Government and the Arab tribes," and forced the region's sheikhs to agree to a "cessation of plunder and piracy," as well as to stop carrying slaves on their vessels.

The Arabic version of this treaty indicates that 'pirate' and 'piracy' were not part of the lexicon or conceptual framework of tribal leaders and inhabitants of the Persian Gulf (Woodbridge et al. 2021). In the 1820 treaty, the word 'piracy' is translated *ghārāt* 'raids'. Though "modern Arabic dictionaries list the terms *qurṣān* 'pirate' and *qarṣanah* 'piracy' under the trilateral root Q-R-Ṣ, giving the impression that this is a true Arabic word derived from this root (which generally means 'to pinch/sting')," the term is "actually a relatively recent addition to the Arabic language, and is a cognate of the English term 'corsair' from the Latin cursarius" (Aboelezz 2022). The foreign origin of *qurṣān* and *qarṣanah*, words which entered the Arabic language through North Africa (Aboelezz 2022), illustrate that the concept of 'piracy' was imported and imposed on the coastal inhabitants of the Persian Gulf, who were forced into maritime treaties employing this foreign word.<sup>4</sup> Further, according to a Kumzari informant, there is still no word in Kumzari today for 'pirate' or 'piracy', and thus nineteenth-century Arabic- and Kumzari-speaking inhabitants of the Persian Gulf would have likely been unfamiliar with this foreign term and framing.

In 1853, the United Kingdom pressured the sheikhs of the littoral sheikhdoms to sign a new treaty to agree to a "Perpetual Maritime Truce," to designate the 'Pirate Coast' as the "Trucial Coast," and to establish the Trucial States (modern-day United Arab Emirates). These treaties and truces served to protect British trade into and out of the Persian Gulf, assert British political supremacy and dominance in the region, reduce the threat of France extending its reach any further in Oman and India, and upend the entire political structure of the 'Pirate Coast' by replacing the local protector-protegé network that had been "lubricated by tribute and inter-marriage among the local rulers" (Suzuki 2018, 70) with the British-made Trucial System. This Anglo-Indian imperial expansion extended the reach of the western flank, or 'frontier', around the same time that the British were trying to secure Burma in the east.<sup>5</sup>

<sup>&</sup>lt;sup>4</sup> See London, British Library, 'File 2902/1916: Treaties and Engagements between the British Government and the Chiefs of the Arabian Coast of the Persian Gulf.' IOR/L/PS/10/606. Qatar Digital Library.

<sup>&</sup>lt;sup>5</sup> The First Anglo-Burmese War began in 1824.

Foreign, and specifically 'western', interventions to 'protect' this waterway have a long, complicated, and suspect history. We might consider whether recent calls by western scholars and environmentalists to 'preserve' the languages, marine and terrestrial wildlife, and environment of the Arabian Peninsula are merely a modern incarnation of past attempts to 'protect' this region in the service of capitalism, knowledge production, western 'values', development, and imperialism. We might consider: what makes the cultures, languages, and landscapes in this volume in particular need of 'protecting' and 'preserving'—and could it be related to their geographical importance in a waterway which happens to be the most important strategic centre for oil exportation today?

The legacy of so-called 'piracy' in the Persian Gulf continues today in the fishing boats and motorboats that smuggle goods across the Strait of Hormuz (goats from Iran are traded for electronics in Oman) to evade sanctions. Perhaps these acts of smuggling, like past acts of 'piracy', should instead be considered forms of resistance to western imperialism, nationalism, and capitalism. Because this waterway is harder to surveil and police than roadways, it lends itself to fostering 'illegal' trade.

Today, Kumzar remains inaccessible by road; it is reachable only by boat. To reach Kumzar by boat, one must pass by Telegraph Island, where the notorious nineteenth-century British telegraph station once stood. The station's submarine copper telegraph cables served as the British Empire's vital connection between Great Britain, Iraq, and India. Its foundations remain, as do the station's stone stairs leading down to the water. The island is now a stopping point for tourist *dhow* cruises, the imperial ecosystem of the past replaced by today's ecosystem of global capital and unsustainable tourism.

Telegraph Island (which had been known as Jazirat al-Maglab before the telegraph station was constructed in 1865) was chosen by the British to host the telegraph cables, because it was thought to be safer than the mainland, where it was vulnerable to attack by local tribes. This bare islet, which is tucked inside one of the khoren, gave rise to the English phrase "going round the bend," as officials stationed on Telegraph Island apparently experienced very serious mental and emotional distress from the isolated location, extreme heat, and stark landscape, particularly the khoren, which obscure the horizon line and full view of the Strait of Hormuz. In 1867, Lieutenant Colonel Patrick Stewart, director-general of the Indo-European Telegraph, wrote that the heat as well as "the high encircling rocks and limited view to seaward must have a depressing effect upon Europeans, especially during the hot season" (Teller 2014). After only three years, the station was closed down, and the cable re-routed through the Iranian island of Hengham. In this case, Musandam's unique coastal landscape resisted British imperial designs and power, as it produced destructive effects on the minds and bodies of the British soldiers who attempted to occupy it.

Today, on nearby Goat Island, the Omani military operates the Musandam Naval Base (with the help of the United States and Great Britain), which operates as a listening post for surveillance on Iran (Middleton 1986). One of the four Omani air bases that the United States has invested large sums of money in is the Khasab airfield. In fact, over the past few decades, the whole Musandam Peninsula has been undergoing a process of "development" as part of a "U.S.-led operation" carried out by Tetra Tech International, a "company that deals with water and energy resources as well as underwater weapons development" and whose president, James H. Critchfield, "served the CIA as Middle East desk officer and a national intelligence officer for energy until 1974" (Dickey 1986). This same company has overseen Musandam's "agriculture and fisheries, power, water, the post office and telecommunications, information, land affairs, municipalities, youth affairs and public works" (Dickey 1986), as well as a computerised census of the region. The presence of British and American military operations on the Musandam Peninsula today raises questions about the sovereignty of the Sultanate of Oman and the Persian Gulf.

In addition to its imperial pasts and presents, the Musandam Peninsula is also entangled in tribal and national tensions, as it is separated from the rest of the Sultanate of Oman by the United Arab Emirates, which has indicated interest in territorially claiming it, most recently through the issuance of maps that provocatively claim it as UAE territory (Sheline 2020). The UAE and Musandam have long and close historical ties. The Omani government has tried to appease the local population (some of whose tribes favour being incorporated into the UAE) with investment projects and development promises, yet discontent remains and poses an ongoing threat to Omani sovereignty, territorial integrity, and national cohesion. Kumzari villagers began residing in the UAE in the 1960s for work-related reasons, and the UAE has issued many of them passports. The 'Khasab Coastal Road' (*Karnaš*) is connected to the United Arab Emirates via the E11 Highway on the UAE side, which facilitates close connections between this Omani territory and the UAE, particularly Ras al-Khaimah which many Kumzaris frequent.

### 3.0. Ecolinguistic Approaches to the Anthropocene, Climate Change, and Coastologies in Kumzari

Today, the impressive biodiversity of Kumzar, along with its traditional language, culture, and economy, is threatened by commercial fishing, neoliberal capitalism, and consumerism. The severe droughts of the past six decades have posed serious environmental and economic challenges as well. Ecolinguistics, which explores the role of language in the life-sustaining interactions of humans with the environment and other species, is well-designed to understand the marine ecosystem of Kumzar and indigenous understandings of it. As a trans-discipline (Bang and Trampe 2014; Fill 2001; Finke 2018; Halliday 1990; Stibbe 2021b), ecolinguistics brings together the seemingly disparate disciplines of ecology and linguistics (Alexander and Stibbe 2014; Zhou 2017) and also draws upon regional studies, cultural anthropology, geography studies, environmental studies, and sustainability studies. In addition to being members of societies, embodiments of culture, and speakers of languages, human beings are also embedded components and functions of the larger ecosystems that life depends upon.

The discipline of ecolinguistics provides a foregrounding for approaching the linguistic ecology of Kumzari by taking into consideration Musandam's remarkable biodiversity and unique coastal environment.<sup>6</sup> Though linguists have pondered the ecological contexts and consequences of language since Einar Haugen's 1972 book *The Ecology of Language*, especially within the context of the ubiquitous destruction of ecosystems around the globe and the dawn of the Anthropocene, such attention has not yet been thoroughly given to Kumzari and the aqua-coastographies of Kumzar, an understudied ecosystem which stands to benefit from not just an ecolinguistical approach, but more specifically a coastological approach that centres the primacy of the coast and coastal sustainability practices in the language and lives of Kumzari speakers.

Ecolinguistics employs critical discourse analysis about ecological systems (Stibbe 2014) to uncover and highlight the manifestation and organisation of cognitive and linguistic processes in organism-environment relations (Bang and Trampe 2014, 89). Ecolinguistics "explores the role of language in the life-sustaining interactions of humans, other species and the physical environment" and can be used to "address key ecological issues, from climate change and biodiversity loss to environmental justice" (<u>https://www.ecolinguistics-association.org/</u>). As ecolinguistics emphasises the interrelationships between living beings and their environments, it is a prime prism through which to view how the delicate ecosystems of Kumzar are reproduced in the Kumzari language, and how the indigenous people of Kumzar have successfully navigated in and through this coastal

<sup>&</sup>lt;sup>6</sup> For more on ecological approaches in linguistics, see Cuoto (2014, 2018); Eliasson (2015).

and mountainous landscape by way of their knowledge of local land and sea ecosystems as encoded in Kumzari.

As the world becomes ever more aware of the threats of climate change, the link between the decline in global biological diversity and the decrease in the world's linguistic diversity becomes more obvious and difficult to ignore. In addition, the destructive and irresponsible environmental impacts of 'growthism', the idea that economic growth and development are inherently 'good', have become more apparent and seemingly irreversible. Today, the village of Kumzar is comprised of two mosques, a school for teaching the Qur'an (in which boys and girls study at different times), several small grocery stores, two restaurants, a laundromat, a mobile café, two barbershops, and a tailor for women's clothes. Two-storey houses (designed with entertainment and comfort in mind) have recently been built, as has a supermarket close to the beach.

While many villagers in Kumzar are interested in developing the village for tourism and modern conveniences, there is a lack of available areas for construction due to a lack of space in the village, as the mountains are so close to the shore. Development and modernisation have already greatly impacted Kumzar's marine and home environments: commercial fishing has decreased Kumzar's fish stocks, and television and the internet have enabled Arabic to reduce the influence of Kumzari in the home, resulting in broken chains of language transmission between generations.

Taking an ecolinguistic research approach to Kumzari is essential for discerning, appreciating, and protecting the symbiotic linkages between the biodiversity of Kumzar and Kumzari linguistic and ecocultural identities. As the United Nations Environment Program notes: "Biodiversity also incorporates human cultural diversity, which can be affected by the same drivers as biodiversity, and which has impacts on the diversity of genes, other species, and ecosystems" (UNEP 2017, 160). To protect the ecosystems that Kumzari villagers depend on, it is necessary to explore Kumzari ecological understandings and environmental interdependence.

### 4.0. Kumzari Assemblages: Mixed Language Ecologies and Linguistic Geographies

Designated by some as a mixed language (van der Wal Anonby 2014; 2015), Kumzari is a product of several different language ecologies and geographies. Linguists and Kumzari speakers alike have argued that Kumzari is a blend of Arabic, Persian, Portuguese, English (take, for example,  $n\bar{a}yl\bar{o}$  'nylon thread'), Hindi, and Balochi, and, of course, uniquely local words. Hence Betram Thomas's reference to Kumzari as "this strange tongue." As the study of Kumzari is still in its infancy, with a thorough grammar produced only recently (van der Wal Anonby 2015), its 'mixed' status is still open to debate.

The phonology, lexicon, and morpho-syntax of Kumzari are rooted in Arabian and Persian. Accordingly, Kumzari could be conceptualised as deriving from two different language ecologies. The first reference to Kumzari is found in an article by Samuel Zwemer, a Protestant missionary, who travelled throughout Oman in 1900. On his journey, Zwemer heard about the Kumzari people and their language, which he later wrote about:

There is coffeehouse babble in Eastern Oman concerning a mysterious race of light-complexioned people who live somewhere in the mountains, shun strangers, and speak a language of their own.... At Khasab, near Ras Musandam, live a tribe whose speech is neither Persian, Arabic, nor Baluchi, but resembles the Himyaritic dialect of the Mahras.... This language is used by them in talking to each other, although they speak Arabic with strangers. (Zwemer 1902, 57)

Around the same time, Atmaram Sadashiva Grandin Jayakar (1844–1911), an Indian Medical Service officer based in Muscat, travelled around the Musandam Peninsula with a British political expedition. In his writings, Jayakar mentioned Kumzari grammar and included a lexicon of 158 items within his longer discussion (1902) of the Arabic dialect of the Shihuh tribe. In Bertram Thomas's 1930 study on Kumzari grammar (which includes a lexicon of 553 words), he noted the high prevalence of Persian vocabulary and determined that Kumzari was "largely a compound of Arabic and Persian, but it is distinct from them both [and] as spoken is comprehensible neither to the Arab nor to the Persian visitor of usual illiteracy" (Thomas 1930, 785). While Kumzari's core vocabulary and verbal morphology have led to its categorisation as a Southwestern Iranian language (Skjærvø 1989) and thus its placement within the Indo-European linguistic ecology, more recent research has challenged or at least complicated this classification (van der Wal Anonby 2014). Though recent scholarship has begun to explore and articulate in more depth the common features between Kumzari and MSAL, this proposed connection is not necessarily new.

The ongoing debate about the linguistic ecologies embedded in Kumzari, coupled with the environmental embeddedness of the language, illustrates that Kumzari is a complex ecolinguistic system. Recent scholarship has suggested that instead of Kumzari being a Persian language with loan words from Arabic, it may instead be an Arabian language with borrowed words from Persian, with origins "in Middle Persian, even prior to the changes that took place in Iranian languages due to the seventhcentury invasion of Fars by Arabic speakers" (van der Wal Anonby 2014, 139). The morphosyntax, sound-system, and grammatical retentions of Kumzari seem to belong not to the linguistic ecologies of Persian or Arabic, but to South Arabian and Shihhi (šihhi).

Clues that Kumzari may belong to an Arabian ecology include Semitic roots in prime vocabulary (van der Wal Anonby 2014), prolific verb derivations, and lexically pervasive emphatic consonants. Contact with Arabic (Bayshak 2002), especially the Shihhi dialect, over the centuries seems to have changed the basic structures of the language (Zwemer 1902; Bayshak 2002; Anonby 2011b; van der Wal Anonby 2015), such as the lexicon, parallel verbal system, and prime elements of the phonological system. Further indicators include verbal nouns of the form *CaC-Cit* derived from Kumzari Semitic verbs (Holes 2004, 149–50), and the use of the 'feminine' suffix ending even on masculine words (Rubin 2010, 65)—a blurring of linguistic ecologies, as grammatical gender varies between Arabic, Iranian, and South Iranian.<sup>7</sup>

Most significantly, Kumzari has post-constituent and multiply marked negation (van der Wal Anonby 2022), a feature of South Arabian languages, but not Iranian languages. It employs negation after a verb or a negated constituent—negation is doubly marked on arguments following a negated verb. As other Western Iranian languages use pre-verbal negation, Kumzari thus seems to belong to another ecology of negation—primarily, the post-negation ecology of MSAL (van der Wal Anonby 2014; 2015).

Though the linguistic origins of Kumzari remain contested, there is evidence that Kumzari predates the Muslim conquest of the region in the seventh century CE, based on the lack of key phonological innovations of Iranian languages in the New Iranian period (beginning with the Arab takeover of Sassanid Persia in the 640s CE) and the Arabic lexicon of Kumzari. Kumzari speakers in Musandam believe that their ancestors came from Yemen (Jayakar 1902; Dostal 1972). The ancestors of the Kumzari may in fact have come from the Azd tribe, who migrated from Yemen around the third to fifth centuries CE, when Oman was occupied and governed by Sasanians (van der Wal Anonby 2014, 137; 2015, 10).

Though Bertram Thomas disagreed with the possible South Arabian origins of Kumzari and refuted Kumzari claims that they descended from third-century migrations of Azd from Yemen

<sup>&</sup>lt;sup>7</sup> For details on the gemination of the feminine t-element in Musandam Arabic, see Anonby, Bettega and Procházka (2022).

(Thomas 1930, 785), recent scholarship (van der Wal Anonby 2014; 2022) argues that Arabian features or even the foundations of Kumzari may derive from when invasions of north-central Arabians in the seventh century forced many to seek refuge in Oman's northern mountains. For instance, Bayshak (2002) tries to prove this theory by linking Arabic structures in Kumzari with MSAL. While discussions of the linguistic ecologies of Kumzari have become more nuanced, the social and cultural practices of the Kumzari language have gone largely unexplored. Language is, of course, a social practice and cultural artefact inseparable from its environment and embodiment. From linguistic constructions and cultural understandings of subjectivity, relationality, and identity to the use of popular idioms and filler words, there is much more research still needed to explore the interrelations of Kumzari with social practices and the affective dimensions of Kumzari across time, ecosystems, and geographies. For starters, it may be easiest and most useful to consider how the unique aqua-landscape features of Kumzar are expressed in Kumzari, before exploring how aspects of cultural and labour practices like fishing, boating, and date cultivation are expressed in the language today.

## 5.0. Constructing Coastal Kumzar: Aqua-Landscapes, Climate Patterns, and Beach Spatialities

There are a number of words in Kumzari that describe Kumzar's unique aqua-landscapes. Some Kumzari words used to describe features of the region's marinescape include: *xēlij* 'gulf in the

ocean', *ğēlila* 'lagoon, wadi streambed', *wīdī/wījī* 'wadi', *xilxil* 'small wadi', *bandar* 'cove', *xōr* 'ocean inlet', *jōbō* 'a water-collecting rock hollow', *ğābana* 'inlet', *ēr* 'an exposed rock in the sea', and *ma'daf* 'seamount'. The Kumzari word for sea is *dirya* (similar to Persian دريا *daryâ*), but *dirya* can also be used for 'fishing'. Similarly, the Kumzari word for 'seawater', *sōr*, is also used for 'salt fish', 'pickled food', and 'brine'.

The average cover of algae in the Gulf of Oman and Persian Gulf has increased since the 2000s due to an abundance of dead coral skeletons providing the conditions for algae overgrowth. Kumzari words related to algae include: awkē 'red algae bloom', xawza 'a type of slimy green algae', xall 'seaweed, string green algae'. More frequent and lethal Harmful Algal Blooms (HABs, or Red Tides) have caused serious mortality of sea life over the past two decades in the Persian Gulf (Samimi-Namin et al. 2010) and the Arabian Sea (Bauman et al. 2010). The coral reefs of northeastern Arabia have suffered over the past two decades from large-scale bleaching events, disease outbreaks, a super-cyclone, large-scale harmful algal blooms (Bauman et al. 2010; Burt et al. 2014), overfishing, coastal development, dive boat anchoring, marine pollution, and climate change. The serious decline in coral cover was exacerbated by "bleaching during the hottest summer on record" in the Persian Gulf in 2017, which resulted in the region losing "40.1% of the living coral cover between 1996 and 2019" (Souter et al. 2021, 62) and the average cover of algae increasing from a "low of 13.0% in 2003 to a peak of 37.3% in 2018" (Souter et al. 2021, 63). Today, over half the coral reefs in Oman are at high to severe risk from a variety of natural and man-made threats and more than 75 percent of the coral reefs in Oman are "projected to be under high threat levels by 2030, and virtually all reefs in Oman under critical threat by 2050" (Burke et al. 2011). The coral reefs in the Persian Gulf have proven less likely to return to pre-disturbance assemblages than those in the Gulf of Oman.

Just as Kumzari has historically been conceptualised as a bridge between two language families (or ecologies), so, too, does the aqua-lifestyle of the Musandam Peninsula straddle two different coral ecosystems-the Persian Gulf and the Gulf of Oman. The coral reefs of Oman are "among the least studied in the region, with just 4% of regional reef-related publications focused on reefs in Oman" (Burt et al. 2016). In fact, the "species richness of hard corals in the Gulf of Oman" (with around 70 species) is "more than the entire Persian Gulf" (Owfi et al. 2015, 21). Coral cover in Oman is highest around the shores of the Musandam Peninsula. The rapid growth and high cover of coral on Musandam's reefs is due to the "high abundances of fast-growing branching corals such as Acropora and Pocillopora," which "cover over 40% of the reef bottom at the surveyed sites in the Musandam" (Burt et al. 2016). The coral reefs of Musandam, however, are vulnerable to high temperatures, whereas the coral reefs on the Gulf of Oman are at risk of cyclone damage. For instance, when a severe bleaching event damaged the coral reefs Musandam in 1990, as a result of temperatures over 30°C for three months, coral reefs in Muscat were not as affected because the "onset of monsoonal upwelling brought cool waters which minimized long-term bleaching and mortality there" (Burt et al.

2016). Conversely, Musandam was not as affected by the 2007 cyclone Gonu as Muscat, since the cyclone turned into a tropical storm and blew out to sea after ravaging Muscat<sup>8</sup> (Coles et al. 2015) in the Gulf of Oman. Thus, the monsoon of southern Oman has a particularly significant effect on coral reefs in the Gulf of Oman.

Traditionally, the sea has been the main source of livelihood, transportation, and recreation for Kumzari villagers. Kumzari has only a few words related to 'swimming' (*šnāw*). Though the village does not have a swim culture per se, children do play in the water. The main activities associated with the sea are fishing and boating (including cultural activities like wedding processions on dhows). Kumzari *lambiya* 'a swim on one's back' happens to also be the word for 'lullaby'. More general Kumzari words related to seawater include *barm* 'wave' and *zābid* 'foam on water'. Seawater may be described as *dawq* 'calm',<sup>9</sup> *šartağ* 'choppy', *ḥabasa* 'still', or as having *dīlub* 'a strong, swirling current'. Kumzari also has a number of words that spatially differentiate different sections of the *čāf/sīf/jum* 'beach'. For instance, *čāfčāf* is used for 'the water's edge' or 'right at the shore', while *tēla āwan* is the 'place where the waves wash onto the shore'.

<sup>&</sup>lt;sup>8</sup> I was in Oman in the immediate aftermath of Gonu, staying at Al Bustan Palace by the Ritz-Carlton in Muscat, and the entire beach had been so battered by the cyclone that there was little sand left—just black stones; the hotel had to purchase a large amount of sand to recreate the beach.

<sup>&</sup>lt;sup>9</sup> The Kumzari noun for a 'calm sea' is *sirx*.

These words illustrate the nuanced attention to location and positionality on land in relation to the water.

Weather in Kumzar has traditionally played a central role in the daily lives of Kumzari villagers and fishermen. The Kumzari word for 'weather', as well as for 'climate', is jaww. Not surprisingly, there are a number of Kumzari words for describing different kinds of rain, as sailing and navigation require careful attention to different types of rain and weather patterns. Rain in Kumzari can be described in terms of its direction, such as *pxūn* 'approaching rain', and its duration, such as *šdūd* 'ongoing rain showers' and halaba 'raining heavily and constantly'. The magnitude of rain can be described nominally as *šobub* 'pouring rain' or verbally as salaba 'driving rain'. A rain that 'sprinkles', naffa, produces *nafnaf* 'scattered raindrops'. The word *tūtū* can also be used for 'scattered raindrops'. There are also Kumzari terms for the effects of a rainstorm, such as *čixčax* 'a stream that forms during a heavy rain'. Other natural phenomena related to the effects of a 'storm', *ğātal*, include *ra*'d 'thunder', *num* 'clouds', and gandaha 'rainbows'. Another obstacle to sea navigation is dağbērit 'thick, dusty haze'. Kumzari also has a word for 'staying out of the cold', dafya, which captures the act of avoiding uncomfortable weather conditions.

## 6.0. Directionality, Temporality, and Magnitude: Motion, Tides, and Wind in Kumzari

Traditionally, Kumzari villagers do not use the cardinal directions for navigation and describing location. Their spatial reference terms correlate instead to topographic variation, similar to the situation in Sulawesi (McKenzie 1997) and Oceania (Palmer 2002). Kumzari villagers tend to refer instead to 'up' and 'down', with the mountains being 'up' and the sea being 'down'. Kumzari does, of course, have words for 'east' and 'west' in *šarqī/mašraq* and *mağrab*, respectively, but their sense of directionality is set to a vertical dimension. Similarly, in the mountains of southern Oman in Salalah, "Mehri rawram 'sea', Śherēt remnam, describe a general southerly direction, and Mehri nagd 'Najd', Śherēt fagər 'stony desert' general north" (Saeed al-Mahri, p.c., cited in al-Ghanim and Watson 2021), while "around the port town of Tagah and to the south of the mountains, Sheret remnam 'sea' indicates general south, and sher 'mountains' general north" (Al-Ghanim and Watson 2021, 65). Kumzaris' rootedness and orientation in space and place is intimately tied to Kumzar's local landscape. Their experience and expression of embodiment, motion, and movement is defined by their bodily relation to local natural features.

Where cardinal directions do come into play in Kumzari is in descriptions of wind. As the daily life of Kumzaris is closely tied to the sea and fishing, wind plays a prime role in everyday affairs. In fact, Kumzaris greet one another with the expression *či kawlā*? 'What kind of wind?' Kumzari has many words for the direction of the *kawl* 'wind', such as *kawl bālī*?ī 'east wind', *kawšī* 'east-southeast wind', *mațlē*?ī 'strong east wind', *öfur* 'west, northwest wind', *qāțarī* 'strong west, northwest wind', *jāẓrī* 'northeast wind', *sālāwī* 'breeze from the east', *na*?šī/nāšī 'north-northeast wind, nor'easter', *nāšī ārabī* 'north wind', and *nāšī fārsī* 'northeast wind'. Wind in Kumzari is also described temporally in relation to the time of day, such as  $g\bar{a}^{2}\bar{i}$  'morning gusts',  $sk\bar{e}z\bar{i}$  'evening wind', and  $q\bar{a}mar\bar{i}$  'night wind', as well as descriptively, such as *darbit* 'blustering wind', *jars* 'biting'. The deverbal *qadaha* 'blowing hard' is also used to describe a powerful gust of wind. The word *xwār* describes 'a calm sea with a gentle breeze', linking the wind with the waterscape. Whereas directionality on land is oriented on a vertical axis and described in relation to the mountains and sea, sea navigation requires more precise directional, temporal, and descriptive language not tied to land, particularly in the case of wind.

Similarly, in Dhofar and al-Mahrah, winds are described according to the direction from which they blow and their severity. For instance, though Mehri has general terms for winds, e.g., *həzēz* and *rīyē*ḥ, it also has terms like "*mdīt* 'sea breeze', *zəfzōf dəmdīt* 'perpetual sea breeze', *xrīb* 'hot desert wind', *xrīb tōrəb* 'blasting hot desert wind', *blēt* 'wind from the north' and *blēt šəmmamyət* 'severe north wind'" (Al-Ghanim and Watson 2021, 66). Despite the processes of modernisation and mechanisation, Kumzari villagers are still heavily dependent on the wind and weather for daily navigation and fishing; thus, these processes affect and shape the eco-focused cognitive processes, environmental literacy, and language production of Kumzari speakers.

As in South Arabian sea-going cultures, the sea-dependent lifestyle of Kumzar is reflected in the language. Kumzari contains a number of words to describe the diversity of tides and tidal motions in Kumzar. Similarly, while English spoken in non-seadependent English-speaking communities tends to just use 'ebb' and 'flow', or 'high' and 'low', in sea-dependent English-speaking communities there is a larger and richer vocabulary of tides (Story, Kirwin, and Widdowson 1990). For tidal descriptions, Kumzari has an assortment of single words that describe the magnitude and time of tides (although, of course, Kumzari also has  $\bar{o}gar$  'ebbing tide' and *purya* 'flowing tide'). Some Kumzari terms emphasise the magnitude of a tide, such as  $g\bar{a}ban\bar{o}$  'exceptionally high-level tide' and the verb  $\bar{s}a'ata$  to describe 'an extremely low tide'.<sup>10</sup> *Gābanō* can also be used in a seasonal sense, to describe what is also called *proxigean* 'a spring tide'. Tides can also be described temporally in Kumzari as part of a cluster at a particular time, such as *kasr* 'a period of very high tides' and *haml* 'the month's highest tides'. Kumzari also has the word *dawm* to demarcate 'the sea between tides', marking the absence, or stasis, of tidal action.

The traditional dependence of Kumzari villagers on the weather and sea for subsistence and navigation made the use of a calendar to track the tides and weather patterns essential. While Kumzari has a general word *taqwim* 'calendar', the people of Kumzar have traditionally used a  $dar/d\bar{o}r\bar{o}$  'Gulf calendar'. Until recently, this calendar was fundamental to Kumzari subsistence, labour, time management, navigation, migration, and socio-cultural life. As van der Wal Anonby (2015, 54) notes, "In recent years, the presence of water pollution, prolonged drought, and extraordinary algae blooms have necessitated adjustments to the calendar or outright decline in its use." The calendar is composed of ten-day weeks, and these are categorised by predictable

<sup>&</sup>lt;sup>10</sup> *Qaraḥa* is the action of water 'dropping very low', indicating a change in the state of the water.

weather patterns (such as searing heat or rough seas), with their corresponding labour and economic activities, such as fishing under favourable weather and tidal conditions predicted by phases of the moon, wind patterns, and currents.

### 7.0. Kumzar's Biodiversity: Capturing Terms for Creatures, Animal Groupings, and Ideophones in Kumzari

An ecolinguistics approach implicitly decentres anthropocentrism and speciesism, shedding light on the complexity and diversity of the ecosystems in which humans are embedded and function. As there are hundreds of names for different fish species in Kumzari, listing all of them is beyond the scope of this chapter. The general Kumzari term for fish is may. In children's speech in Kumzar, fish are called bahha. Some of the most popular species of fish in the Musandam area are: *jaydar* and *wir* 'tuna fish', *ālaq* 'needlefish', angiz 'squid/cuttlefish', far 'flying fish', erarağ 'bream', xāǧur 'type of bream fish', manta 'marlin', fagl 'porcupinefish', mayg 'shrimp', sābut 'jellyfish', ūmat 'sardine', gēlō 'catfish', xarkuk 'parrotfish', rīšō 'goatfish', šang 'butterflyfish', sikl 'cobia fish', sēhak 'guitarfish', tirxēnit 'milkfish', xālaq 'type of grouper fish', šamšīrī 'sawfish', šāwan 'type of codfish', bahlul 'potato grouper', *šangaw* 'type of crab', *čāwuz* 'rabbitfish', *snāfē* 'type of rabbitfish', gewgaw 'type of rabbitfish', šayn 'type of queenfish', sārm 'type of queenfish', šāxur and šuqqar 'types of snapper fish'. The *qātal* 'killer' fish is a poisonous and deadly fish. While many of these words are connected to regional fish lexicons, more work is being done to properly associate these fish species with their scientific names (Anonby and Al Kumzari fc.).

Many fish populations in the Persian Gulf, especially species of groupers, have been heavily exploited over the past two decades, prompting local communities to be more vocal in pushing for the maintenance of optimum levels. In Musandam, there is a higher prevalence of fish from the Lutjanidae (snappers) and Chaetodontidae (butterflyfish) families, as opposed to the Haemulidae (sweetlips) and Scaridae (parrotfish) families. Types of fish well-defined in Kumzari indigenous knowledge but, to the best of my knowledge, not yet classified by English translators include: aragumba, lēdam, lāhafī, lākō, lāzuq, kan'ad, īfē, jašbib, kāraraš, māmadī, gambab, gāt, gāpt, gartabō, grambis, gunwah, qurfē, rāmišt, sāl, sāfin, skindan, tihādī, umbē, xrō diryī<sup>2</sup>in, xubbat, xubr, mēd, jārid, lašt, kōr, mazāraq, lahlah, maysānī, šōban, šōbubō, sōman, siftik, sanksar, rōbāyō, tarbō, sitraǧ, xēnō, sabū, sāwawē, lahlah, zbayšō, nagrō, pārawē, kūkū, jurbah, imbē, kan'ad, kōfar, gurgurō, garagumba, lašt, gmō, zbēdī. Additionally, a būt is a 'type of small fish'.

Kumzari has several words to refer to a grouping of fish. While a *maḥdaqa* is a 'fish habitat', a *qiš*' is a 'deep-water fish habitation'. A mass of fish underwater can be referred to as  $r\bar{a}^{2}im$ ,  $x\bar{u}y\bar{u}$ , or *kard* (also used for a 'cluster of dates' or 'flock'). A *čikkit* is a 'string of fish'. Thus, there is attention in Kumzari to different types of fish habitations and fish formations.

The waters of the Musandam Peninsula are known for their large dolphin populations. Many tourists who visit the Musandam region go dolphin watching on *dhows* that depart from Khasab. Kumzari has words for both the 'white dolphin' in *kārabō* and the 'black dolphin' in *fijmē*. Other words for sea creatures in Kumzari include: *hēmis* 'sea turtle', *jāwar* 'large sea turtle', *bām* 'giant sea turtle', *šufrāqō* 'frog', *timsaḥ* 'crocodile', *šawḥaṭ* 'whale', *sēlik* 'moray eel', *sīflindō* 'type of eel', *rubbaṭ* 'type of stingray', *rāmak* 'type of ray', *rubyan* 'prawns', *asp* 'seahorse', and *mṣaww* 'barnacle'. Barnacles in Musandam cover only 5 percent of settlement tiles, as opposed to the Gulf of Oman, where they cover nearly a quarter (22 percent) (Bento et al. 2017). The Kumzari word *qabqab* describes a 'small crab', but it can also be used for a 'quick person'. While the Kumzari word for 'octopus ink' has been documented as *mādad*, other terms related to the effects or productions of sea creatures have yet to be studied in detail.

Today, there are 32 shark species in the Persian Gulf. Fishermen in Kumzar catch a variety of sharks: blacktip, hammerhead, whitetip reef, and some whale sharks (Jabado et al. 2014; Notarbartolo di Sciara and Jabado 2021). While  $k\bar{u}l\bar{l}$  is a general word in Kumzari for 'shark', Kumzari also has a number of words to refer to different types of sharks, from  $d\bar{l}b\bar{e}$  'great white shark' to various types of sharks still undefined in English ( $n\bar{a}wuk\bar{o}$ ,  $q\bar{a}zum$ ,  $jm\bar{e}s$ ,  $jubb\bar{e}$ ,  $xiswan\bar{n}$ , manqab,  $p\bar{e}čak$ ,  $qr\bar{a}d\bar{l}$ ,  $r\bar{e}jim\bar{l}$ ,  $tirx\bar{e}nit$ ). Fisherman from Kumzar lure sharks using a sea trap consisting of a long, weighted rope with live fish that are baited through the cheek and hooked onto the rope. They return a day or two later to see if a shark has been caught by the sea trap. Although shark fishing is a tradition in Kumzar, shark fishing did not become a specific means of livelihood until after the 1970s (Castelier 2020), when the oil boom in the Persian Gulf connected Oman to Asian markets.

Today, the fishermen of Kumzar are embedded in the global shark trade's ecosystems of exploitation. The shark fishing business in Oman (and the Persian Gulf in general) is very lucrative, as it supplies shark fins and meat from a variety of shark species for customers around the world-specifically wealthy customers in Asia (Castelier and Müller 2017). According to the United Nations Food and Agriculture Organization, Oman exported US\$2,438,000 worth of shark fin between 2000 and 2011 (Dent and Clarke 2015, 20). Several species of shark are being unsustainably fished in Musandam, trafficked via Khasab to the United Arab Emirates (Jabado et al. 2014; Jabado et al. 2015; Jabado et al. 2018a; Jabado et al. 2018b) and flown to Hong Kong, from where they are sold to markets in China, Taiwan, Malaysia, Singapore, and Indonesia. In Asia, shark fin soup is considered a delicacy, and the preferred species for shark fin soup is the hammerhead shark (all three kinds: Scalloped Hammerhead, Great Hammerhead, and Smooth Hammerhead) (Dent and Clarke, 2015). Due to this demand, hammerhead sharks in eastern and southern Arabia have experienced "the greatest mean perceived decline (80%) of sharks in the region" (Almojil 2021). While shark fishing is not illegal in Oman, there are some stipulations.

In Oman, sharks must be sold whole, as 'finning' (removing the fins for sale without the body) is prohibited. Finning is not a new practice in Kumzar: in 1908, Lorimer wrote: "They [Kumzaris] own 40 or 50 fishing boats and 5 sea-going boats that run to Qishm, Dibai, and Masqat Town with cargoes of salt fish and shark-fins" (1040). In 2008, Oman became a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which stipulates that the great hammerhead shark and the whale shark should be protected from sale and trade. Despite these regulations, however, sharks continue to be overexploited in Oman, where just one hammerhead shark can earn a fisherman close to US\$1500.

Oman is ranked seventeenth among countries in terms of quantity of shark fin exportation. According to Dr Rima Jabado, a biologist who studies sharks in the Persian Gulf, overfishing in Oman and the UAE is endangering the shark populations there. In her research she found that "sharks were found to be increasingly targeted owing to their high value in the global fin trade industry" and "the majority of fishermen (80%) confirmed that changes in species composition, abundance and sizes of sharks have been continuing for more than two decades, mainly because of overfishing, raising concerns about the sustainability of this fishery" (Jabado et al. 2014). She found that almost 50 percent of shark species traded in the UAE are at high risk of global extinction. Kumzar's entanglement in the global shark trade is leading to overfishing (Dulvey et al. 2021) in Musandam and contributing to the endangerment of several shark species. Further, due to the violation of international regulations and the involvement of criminal networks involved in shark fishing and finning, shark fishing (like the falcon trade) remains a sensitive subject in Oman and the Arabian Peninsula in general.



Figure 1: Dolphin swimming in Musandam (Photo: Emily Jane O'Dell)

In addition to further work needed on identifying specific fish species in Kumzari, more attention must also be paid to bird terminology and the cultural place of birds in Kumzari culture. The general term in Kumzari for bird is *tēr*, and other Kumzari words for birds in the Musandam region include *haqm* 'domestic pigeon', *murwa barrō* 'domestic chicken', *al'ul* 'heron', *būm* 'owl', *murwa kō'ō* 'sandgrouse', *hāmamō* 'dove', *šā'in* 'eagle, hawk, vulture', *xrō* 'rooster', *suqr* 'osprey, falcon', *bībī mattō* 'parrot', *bağbağa* 'parrot', *nābī* 'gull', *bišram bēšir* 'gull', *ğrāb* 'crow', *ğuwwē* 'white tern', *sufṣuf* 'sparrow', and other types of birds still not yet defined, such as *saqqa* and *şufrit*. The 'caw' of a crow is captured in Kumzari by the ideophone *qā*, and the ideophone of a rooster and the 'crown' of a hoopoe is *farrūgit*.

Kumzari words for animals outside the direct ecology of the sea include creatures indigenous to the Musandam Peninsula and those far from it. Words that illustrate the diverse animal species existent in Kumzari include: *numr* 'leopard, panther, tiger', *arnab* 'hare', *jāmal* 'camel', *ḥamra* 'hyena', *sābalō* 'monkey', *qambuṣṣō* 'hedgehog', *ḍaby* 'oryx', *ḍab*' 'hyena', *šāẓalē* 'gazelle', *fahd* 'cheetah', *asp* 'horse', *dīb* 'wolf', *aqrab* 'scorpion', *ẓubd* 'type of gecko', *dabb* 'type of large lizard', *muğlī* 'type of venomous snake', and *mār* 'snake'. Kumzar and the Musandam Peninsula in general are also home to insect inhabitants and communities. Kumzari words for insects include: *gīrağ* 'ant', *abū šayban* 'spider', *šur*ş 'cockroach', *gārad* 'locust', *mām abū kō* 'butterfly', *qarraş* 'mosquitos', *qmaylō* 'weevil', *ẓirraḥ* 'type of flying insect', *dēṣa* 'type of stinging insect', *asp* 'moth', *rišk* 'type of louse', *qāt* 'type of beetle', and *sūrō* 'wasp'. In Kumzari, *dupsī* is a 'plague of insects'. Of course, like humans and other animals, insects construct their own homes and communities, such as *sāban* 'wasp nests'.

Kumzari uses several animals to metaphorically describe the behaviour and physical appearance of human beings. For instance, the Kumzari word for  $c\bar{e}l$  'albatross', a bird whose breeding cycle stretches over two years, is also used to describe a 'slow person'. The Kumzari word for cow, as in Arabic, is  $b\bar{a}qara$ , which is also used in Kumzari to describe a 'stupid person'. A  $s\bar{e}w$  is a type of snake, and this word is also used for a 'very thin person'. Not only can animal aspects be used to describe human physicality and cognition, but animal names can also be subsumed into Kumzari nicknames and given names.

In Kumzari, a 'nickname' ( $l\bar{a}qab$ ) is often assumed by those with common names so they can be distinguished from others who share their popular given name. These creative long nicknames can draw upon one's parents' names, physical appearance,

tribal affiliation, occupation, an animal totem, or a feature of the landscape. This phenomenon is not, however, restricted to nicknames, as traditional names can also contain pertinent ecological information. For instance, Kumzari who live in the mountains may have traditional names with the ending  $-k\bar{o}$  'mountain', such as  $\bar{e}lik\bar{o}^{c}$  (for Ali) and  $\bar{i}sak\bar{o}^{c}$  (for Isa). Two examples given by van der Wal Anonby (2015) of the phenomenon of incorporating animals and landscapes into nicknames include Eliko Šobubo (Aliko + 'fish species') and  $\overline{E}l$ -Ham- $\overline{O}l\overline{O}$  (*Ali Hamed* + 'mountain peak'). As van der Wal Anonby (2015, 52) observes, it is common for nouns of culturally familiar items, especially those with "semantic ties to Kumzari identity and subsistence," such as "fish species, date stages, tides and weather, and parts of a boat," to assume the same morphology as personal names, like the  $-\bar{o}$  suffix. Some examples she provides are *ambaro* 'type of bream fish',  $sp\bar{a}r\bar{o}$  'storage space beside mast on a boat', and  $s\bar{i}flind\bar{o}$  'a type of eel'. Thus, not only do Kumzari incorporate animals and landscapes into their own names and nicknames-which are the prime markers of one's personal identity-but there is also a linguistic connection between these semantic features of Kumzar's ecology and the morphology of personal names.

## 8.0. Sardine Fishing, Boating Technology, and Goat Husbandry: Equipment, Labour, and Decoration in Kumzari

Fishing and date cultivation have long been the primary seasonal sources of income for Kumzari villagers. Labour in Kumzar has traditionally revolved around the sea and been shaped by the changing weather and seasons. Indigenous fishing knowledge of the Musandam region, and Kumzar in particular, has received some attention in scholarship (Musallam et al. 2006; Al-Anbouri, Ambak, and Jayabalan 2011; Al Jufaili 2021). However, one study which included interviews with fisherman from all over Oman (who had at least thirty years of experience in the sardine and anchovy fisheries) left out the Musandam region completely (Al-Jufaili 2011).

Kumzar is well-known in Oman for its long history of sardine and tuna fishing. In Kumzari, the 'sardine season' is called  $ty\bar{a}h$ . The sardine season stretches from September ( $m\bar{a}$  na') to April ( $m\bar{a}$   $c\bar{a}r$ ), with December ( $m\bar{a}$   $dw\bar{a}zda$ ) and January ( $m\bar{a}$  yak) being its peak, as the colder weather of 'winter' (*dimistan*) provides the most favourable conditions. In May ( $m\bar{a}$  panj), after the sardine season, residents of Kumzar head to Khasab ( $X\bar{a}sab$ ) to harvest dates during the 'searing heat' (zuqqum)<sup>11</sup> at the 'beginning of summer' ( $daym\bar{e}$ ).<sup>12</sup> The 'summer migration' is called *huwwil*. Sardines are used by Kumzari villagers as food for humans and livestock, bait ( $g\bar{i}m$ ), and also fertiliser. Sardines are carried in Kumzar in an *anda* a 'round woven mat with handles used for carrying sardines'. Outside of Musandam, the main markets for sardines in Oman are located in Muscat (*Maškat*), Al-Batinah, and Dubai in the UAE ( $\bar{a}mar\bar{a}t\bar{o}$ ).

<sup>&</sup>lt;sup>11</sup> 'Warmth' or 'heat' in general in Kumzari is *garm* (as in Persian), while the adjective *garmağ* is used for 'hot'.

<sup>&</sup>lt;sup>12</sup> When I was in Kumzar, I noticed that many houses had at least one air conditioner (*kandēšin*).

The coastal waters of the Sultanate of Oman have six sardine species. This striking variety may "indicate greater diversity of environmental habitats when compared to the other sardineanchovy systems" (Al-Jufaili 2002). This diversity "allows or perhaps encourages speciation" (Al-Jufaili et al. 2006). Further, seasonal shifts in winds triggered by changes in the atmospheric pressure of the Indian Ocean cause reversals of the current along the East African coast that similarly affect Oman and Iran (Sheppard 2000, 920). It is possible that the diversity of sardine species in Oman is related to the "migration of fish to the north during the southwest monsoon and southward during the southeast monsoon" (Al-Jufaili et al. 2006). The sandy coast in the north, around Al-Batinah, yields many sardines, whereas shark and tuna fish tend to be caught along the "rocky coastlines of the Gulf of Oman along Musandam" (El Mahi 2000, 99). Longitudinal environmental data is still needed for understanding fluctuations in Oman's sardine catches, and the effects of ocean currents and the monsoon cycle on sardine communities in Oman.

For sardine fishing, fishermen in Kumzar use traditional beach and purse seines, which require little effort and are set out close to shore. In Oman in general, beach seines (modified gillnets) are the most popular method for catching sardines. Such a 'gillnet' ( $li k \bar{u} k \bar{u}$ ) can require about a dozen people to set and collect. However, as I witnessed in Kumzar, most boat crews fishing for sardines use about two to four net handlers. A gillnet catches the 'gills' ( $\check{g}m\bar{u}t$ ) of a fish in the mesh when it tries to back out of the net. A sardine catch can yield approximately forty tons a day.

Kumzari has a number of words related to fish netting. *Say* is a 'traditional fishing net', *lē* is a general term for 'fishing nets, *kurraf* is a 'deep-sea fishing net', and *qbēl* a 'sardine net' in particular. Traditional 'large' fishing nets are referred to as *ābat*, *jārif*, and *šābak*. There also a variety of terms for different types of fishing nets (well defined in Kumzari, but still unknown to outsiders), such as *bān*, *tar*h, *sāğa*, and *sēram*. There are also several net-related terms, such as *fars* 'fishing net thread' and *mih*h 'seine net rope'. The parts, or sections, of nets and ropes have specific terms. For example, *likkit* 'main section of a net', *nāxē* 'beginning of a fishing net rope', and *qādam* 'end of a fishing net rope'. These specific terms for parts of the rope mirror the phenomenon of specific words being used to refer to different sections of the beach.

Netting is not the only technology that Kumzari fisherman use to catch fish. In addition to net fishing, Kumzari fishermen also use 'fish traps' ( $\bar{a}b\bar{a}^{2}$ ), as well as 'metal fish traps' ( $d\bar{u}b\bar{a}y$ ) and 'a small wire fish cage' (gargur). Other fishing equipment includes: <u>sāmur</u> 'a stone weight for fishing', mark $\bar{u}$ 'ī 'a fish caller', and k $\bar{i}bal$  'buoy'. There are a number of terms in Kumzari related to buoys:  $q\bar{a}lub$  'a large buoy', rammul 'a small buoy',  $qar^{2}a$  'a middle buoy in a fishing net',  $b\bar{o}ya$  'a large plastic buoy', karb 'a buoy', but also the 'thick end of a palm branch'. In Musandam, buoys are used not just for fishing, but also to control marine tourist traffic. For instance, mooring buoys are installed at Telegraph Island, which tourists use as a dive site, yet these two buoys are not sufficient for the number of boats that arrive during the weekends. As the acts of anchoring and hooking play important roles in fishing and boating, Kumzari has terms for different kinds of anchors and hooks: a general term is *langal* 'anchor', while *qanhē* is a 'small anchor' and *nittar* a 'stone anchor'. *Msaww* is a 'fishing net weight' and *sinn* a 'fishing net anchor'. Other terms related to fishing include: *jām* 'hooked', *mnaxx* 'large hook', *nišbil* 'fishing line', and *şēram* 'container for fresh fish'.

Kumzari words used to describe labour related to fishing refer to the construction and movement of boats, the manipulation of nets, and the preparation of fish. Fishing is, of course, a communal endeavour that requires many roles, such as a *trādīn* 'motorboat driver', *nijjar* 'boatbuilder', *diryī'īn/diryi'īnē* 'fisherman', and *nōxada* 'captain'. Kumzari also has a word for 'fishing instructions': *tālab*. Traditionally, a spotter is also used in the nearby cliffs to help fishermen reach their catch. The Kumzari verb *līmē* 'gesturing to call someone far away' attests to the bodily signals and coordination necessary when communicating across the land and sea without the aid of modern technology.

The act and labour of fishing is very much defined by directionality. Fishermen must go toward and into the water, stay for a period of time in the water waiting for the catch, and then return to the shore. The Kumzari word for 'departure' (*jēl*) is also used for 'the laying out of fish nets', an act which marks 'leaving' to go fishing. In traditional daily life in Kumzar, 'departing' almost always meant leaving to go fishing—thus, the two are understandably linked. The Kumzari word for the act of 'sitting in a boat waiting for fish' is *tal'it*. Thus, the stasis of fishing and experience of anticipation of a catch is captured in a single word—instead of just assumed under a generic term like *fishing*. The verb to 'trap fish' is *ābā*,<sup>13</sup> while *quṣrō* is the word for 'pulling in nets'. This is done with the help of a *mintab*, a 'hooked stick used for pulling in fish nets'. While *ḥamya* is the general verb for 'docking' or 'beaching', the deverbal *gamaga* is used to describe the action of 'going onto the shore quickly to remove a boat from the water and store it on the beach'. This term captures the movement and speed of returning a boat to shore. Perhaps more work is needed to explore articulations in Kumzari of the storage and maintenance of fishing equipment.

While there are many Kumzari words to describe the labour and equipment of fishing, there are also words that refer to the preparation of fish after the act of fishing. For example, catch can be described as *dīr* 'a slit fish', *gannit* 'a stack of dried fish', *saḥnē* 'crushed dried sardines', *qāša* 'drying fish', *tik* 'the slitting of fish', *kālak* 'fish cheek', *ūmit* 'dried sardines'. Just as there is a specific word for fishing instructions in Kumzari (*tālab*), the term *māya* is used for specifically for 'payment for fishing'. The traditional diet in Kumzar is primarily made up of locally sourced ingredients from Kumzar's marine environment. Some popular dishes in Kumzar include *mēčūrī* 'fish soup', along with fish-derived condiments and sauces like *sāwarağ* 'fish brine condiment' and *qaššad* 'shark sauce'.

 $<sup>^{13}</sup>$  See  $b\bar{a}$  'trap fish, pull in (IMPV)' and  $t\bar{a}b\bar{a}$  'trap fish (IMPF)'.



Figure 2: Boats on Display in Khasab Castle (Photo: Cathy Birdsong Dutchak)

Boating is the traditional bedrock of Kumzari livelihood, culture, and migration. As Kumzar is accessible only by boat, boating is the prime mode of transportation for venturing outside the village, which is why boating has played such a prime role in the navigation, trade, and identity of the people of Kumzar (Vosmer 1997; Weismann et al. 2014; Ghidoni and Vosmer 2021). A 'vessel' in general is *abrit*, while a 'motorboat' is *trājē* or *tarrādē*. Kumzari speakers refer to a *dhow*, a large traditional boat in Oman and throughout the Persian Gulf, as *būm* and *lanj*. A 'type of short *dhow* in Kumzari is *dādrō*, and a 'rowboat' is *ōra*. In Arabic, the traditional boats of the Musandam Peninsula used for seine fishing, along with coastal trading, smuggling, fishing, pearling, and fighting, are called *battil bahwy*, *battil qarib*—or *selek* (Agius 2002, 111)—and *zarūqa*.

A *battil* is a double-ended fishing vessel with a low pointed prow, high sternpost, and projections. The *battil bahway* is of medium size, the *battil qarib* is slightly larger, and the *zarūqa* is a

smaller version of the *battil* with a deeper forefoot. Kumzari also refers to this style of boat, which is unique to the Musandam Peninsula, as *battil*, with *salq* being the 'type of large *battil*' and *zōraqa* being the smallest version. The bow and stern of a battil traditionally featured a stitched method of binding the planks with coconut thread (Weismann et al. 2014). Several such boats are on display in Khasab Castle (Kālat Zēranī). General Kumzari words for the parts of a boat include: āšyō 'mast beams across boat deck', dastur 'lower sail crossbar', dol 'mast', erisin 'oar', ozar 'sail', sāxī 'bow of boat', sikkē 'stern', sikkan 'rudder', ka'nağ 'cross-beam', tēlan 'inner railing of a boat', zgurda/zburda 'sheer strake', xišš 'side of a boat', xizmīto 'stem-post', dar bandiro'o 'ship's flagpole', bandēra 'ship's flag', bandolo 'mast box', and māyikan 'handle on a traditional boat'. The Kumzari word for the 'back of a boat" is dum, which is also used for 'tail', and the 'wake of a boat' is *āwga*. The Kumzari words *xurt* 'a stable thing' and durb 'an unstable, wavering thing' are usually used to describe the condition of a boat in the water. Kumzari words related to stability and stasis (such as the aforementioned tal'it 'sitting in a boat waiting for fish') capture the necessary balance and patience required for the act of fishing.

Figure 3: Cowrie shell decoration in Khasab (Photo: Cathy Birdsong Dutchak)



In Kumzar and the Musandam Peninsula in general, a *battil* is often ornamented with bands of cowrie-shell decoration around the prow, rudder, or false sternpost. In Kumzari, this 'cowrie chain' is called a *zarzur*, whereas a single 'cowrie shell' is a *pakkis*. Agius (2007, 104) recounts: "I was told by my informants in Kumzar that the decoration of cowrie shells around the tall stern fins of a *battil bahwi* is to commemorate a wedding in the village." Similarly, palm fronds and "tassels (*kasht*) are hung from the *zaruka* steamhead in Kumzar" (Agius 2007, 103). It is "generally understood that the pendulous decorations such as tassels, flags, umbrellas, shells, ostrich eggs and feathers serve as amulets to guard the boat against the evil eye," much like the bridle ornaments of Arabian camels (Agius 2007, 104). In the Kumzari language, a "goatskin hung on the prow of a boat" is referred to as *pōst sīnō'ō*. It is still the custom today to "sacrifice

a sheep or goat at the launching of a boat or ship," after which "the flayed goat skin is dressed on the stemhead—such as the stempost of a *battil karib* at Kumzar, Musandam Peninsula" (Agius 2007, 102--3). The goatskin decoration is intended to ward off *afrit* 'evil spirits', *banjā'ī* 'evil', and *ḥassa* 'misfortune' in general. Throughout the Sultanate of Oman, beliefs about the *šūmē čōmē* 'evil eye' and magic are prevalent, and Kumzar is no exception. In fact, Kumzari contains several words for someone competent in magic: *ṣāḥar* 'sorcerer', *ardī* 'powerful sorcerer', and *jinjāwir* 'master sorcerer'.

In the traditional culture of Kumzar, goatskin is not just used for boating decoration, but also for churning. A goatskin used for churning is called *mašk* (as in Persian), whereas elsewhere in Oman, like Dhofar, a goatskin for churning is called *qirbah* and/or *sqa*. In Kumzar, these goatskins are usually large enough to allow for the churning of 10–12 kg of yoghurt and water, though some may be even larger. A goatskin from Dhofar in the Sultanate of Oman is in the collection of the British Museum (object number As1985,18.4). Donated in 1978, it is accompanied by the following text:

The water bag (*qirbah*) continues to be the most reliable means of storing water and milk for many families in remote regions of the country [Oman]. It is hung inside a dwelling or from the branch of a tree, and is carried on the side of the camel when travelling.... Along the desert coast, camel and goat milk is often more plentiful than fresh water, and is a critical component of the local diet. Buttermilk (*laban*), which is particularly favoured, is made in a large leather churning bag (*sqa*) suspended from a tripod or tree branch, and rocked back and forth. (Richardson and Dorr, 2003, 373)

Goatskin churning bags are closed at the bottom with stitched and embroidered leather, while an opening is left at the top through which the bags can be filled, emptied, or stirred with a churning stick. A cord allows it to be suspended from a tree branch for the churning process or hung for storage or migration on a hook or camel. This traditional churning technology can be found in photographic and archival records from around the Persian-speaking world, such as Iran and Afghanistan, as well as in Palestine, Egypt, Iraq, Gilgit-Baltistan, and Socotra in Yemen.

Goat husbandry is another traditional practice and livelihood of the Kumzari people. Goat Island (Jēzurtō) has traditionally served as a seasonal grazing ground. In Kumzari, a 'goat' is gosin. There are also specific words for goats at different stages of development: bukrit 'newborn goat', xāšar 'young goat', and a *dēbahit* 'full-grown male goat'. However, in children's speech, a goat is tahha. Relatedly, the interjection used by goat herders to call a goat to come is *tahh* or *tay*<sup>2</sup> *tay*<sup>2</sup>. Similarly, the interjection to call sheep (*kapš*) is:  $ta^{2} ta^{2} ta^{2}$ .<sup>14</sup> The act of 'catching goats' (hayš) is performed by a hayyiš 'goat catcher'. A  $r\bar{a}$ 'i is a 'person who raises goats'. When not grazing, goats are kept in a 'goat pen' (zēribit/sandaqa/innit). A 'sloping well for watering goats' is hisi or husi. Kumzari also has terms for a 'wily goat' (furi) and a 'stupid goat' (agī). While goatskin is used to decorate the traditional boats of Musandam, goat hair is used for the fashioning of a special kind rope (*texa*).

<sup>&</sup>lt;sup>14</sup> The interjection to call cats is *taktūk* and *takū*.

Traditionally, Kumzari villagers would bring goats to the coastal bays of Goat Island (Jazirat al Ghanam) to graze after rainfall. As Lorimer (1908, 577) explains: "Jazirat-al-Ghanam is totally barren and devoid of water; but the people of Kumzar, to whom it belongs, send goats here for grazing after rain." The remains of a World War II Naval Signal Station still exist on Goat Island, vestiges of the island's modern entanglements in regional and global conflicts. Today, Goat Island is the command centre for Oman's surveillance of the Strait of Hormuz. The Musandam Naval Base, opened in 1986, and its radar posts are overseen by hundreds of Omani marines and sailors in addition to the British Royal Navy (Kostiner 2009, 197). In addition to interviewing via radio every ship that passes through the strait, the Omani military and its British and American partners also use the island as a listening post to conduct surveillance on the Islamic Republic of Iran.

Goat Island is just one element in Oman's and Great Britain's sprawling ecosystem of militarism in the Strait of Hormuz. There are only a few dozen local inhabitants left on the barren island, which has no natural water resources. The base has led to the displacement of some in the surrounding area, such as the relocation of the population of the village of Qabal on the east coast of Musandam for the construction of a military installation (Dickey 1986). The environmental effects of these ecosystems of military surveillance are not currently known, but they are certainly harming the environment—through the use of large quantities of oil alone. Prince William and then UK Minister of Defense Ben Wallace visited the naval base on Goat Island, and Great Britain has conducted joint exercises with Omani troops on the island (including for mountain warfare practice). Today, the island administratively belongs to the Wilaya al-Khasab of Musandam Governorate.

Figure 4: Goatskin decorating a battil (Photo: Jacques Van Dinteren)



# 9.0. Date Plantations in Khasab: Palm Cultivation and Coastal Migration in Kumzari

In the summertime, Kumzari villagers travel to Khasab to tend to their date plantations. This migration includes the 'mountain Bedouin' ( $k\bar{o}$ ' $\bar{\imath}$ ) of Kumzar—Shihuh families who speak Arabic and, due to constant droughts, have moved down from the mountainside into the village of Kumzar (and even learned Kumzari). In Khasab, Kumzari villagers live in their own neighbourhood 'quarter' ( $h\bar{a}rt\bar{o}$ ), called Harat al-Kumzari in Arabic, near the sea. The date palm is the primary agricultural crop in the Sultanate of Oman; half of the dates that the country's seven million palm trees produce are used for human consumption, and the other half for animal feed. In fact, one type of date palm in Oman is called 'Al Khasab', which is treated with hand pollination as opposed to the mechanical pollination of varieties like Khalas.

The date palm (*muğ*) plays an important role in the daily life of Kumzaris. Accordingly, Kumzari has many words 'pertaining to the date palm' (maxledi). There is not just one 'category of dates' (sayr), but many different categories and thus various types, such as: basrī, bağl, qas tābayya, qa jannur, qa ja<sup>3</sup>far, qa šurbē, qa sumrē, lūlū, mēdiq, kilwiskit, mijnaz, nāğal, gēsarit, ēl mātarī, xār xnēzī, gadduh, gašš, gaš fāras, gaš hābaš, gaš mgālaf, qaš xuršid, and xsāb.<sup>15</sup> The jujube (aka 'red date') is knār, while the yellow-golden date is *qērin*. Kumzari has singular terms for many parts of the date palm, such as *piš* 'date palm frond or leaf', *lif* 'date palm root strands', *gurd* 'midrib of palm frond', *wagz* 'tip of a palm frond's midrib', and *qiš'an* 'date palm bark'.<sup>16</sup> Pang is used for the poker at the top of a palm tree, as well as for 'sword'. 'Date palm pollen' (nābat) is made from the 'male date palm' (fahl). For irrigation in Khasab, plantations use a regular 'irrigation channel' (indīyē/andīyē) system as well as the fālaj 'channel' irrigation system used throughout Oman.

There are a number of environmental issues related to palm cultivation in Oman in general. The main issues that plague date palm production are a shortage of labour, the use of traditional methods of cultivation that are not as efficient as mechanical methods, and unsatisfactory post-harvest handling and marketing approaches. For example, in the traditional practice of

<sup>&</sup>lt;sup>15</sup>  $Q\bar{a}q\bar{a}$  is how children refer to a 'date' in Kumzari.

<sup>&</sup>lt;sup>16</sup> 'Bark' in general is *faqqaš*, a word which can also be used for the 'shell of an egg' or 'peeling skin'.

cultivation in Khasab, Kumzari villagers use basin irrigation, which is a low-cost method, but relatively less efficient than other irrigation methods, leading to more water loss from runoff and evaporation. Further, twenty-five percent of all dates produced in Oman is wasted every year (Al-Yahyai and Khan 2015, 9) due to poor quality, as a number of date growers are unaware of the rigorous export standards. Palm cultivation is also affected by diseases and pests. Dubas bug and red palm weevil are "the main biotic factors that affect date quality and yield in Oman" (Al Yahyai and Khan 2015). The word for 'date palm sickness' in Kumzari is *šēş*.

Dates in Kumzari can be described in various stages of growth and preservation. Beginning as *hābabō* 'tiny green date seeds', a date palm progresses to the stage of being a *sarm* 'sapling'. Some terms for dates at various stages include: *ğēt* 'young white date fruit', *king* 'ripening date', *arțab* 'fresh date', *arma* 'a date in a preserved stage' and *hāšaf* 'dried-out dates'. A 'ream' or 'branch of dates' is *ōš*. The 'harvesting' (*gadda*) of dates and 'palm leaf cutting' (*šakasa*) are not the only labour related to the date palm tree, as Kumzari villagers in Khasab use the gathered palm leaves to create an assortment of essential structures, aids, and objects.

Many everyday objects in Khasab and Kumzar are fashioned from various parts of the palm tree. By 'braiding' (*suffū*), 'weaving' (*saffa*), and pounding the palm leaves, Kumzari women produce all kinds of 'palm work' (*suffit/tūrāṣ*), such as 'palm thatch' (d'ān), 'palm floor mat' (*smēt*), 'palm back support' (*hābul*), 'palm frond broom' (*mayšaṭṭa*), and 'palm fibres pounded into twine' (*hakka*). In Kumzari, a 'palm-frond shelter' is a *sirg*, whereas in Arabic these traditional airy summer homes constructed to escape the scorching heat are called *barasti* (or *arish*). These structures were traditionally used by the mountain dwellers of Kumzari who travelled to Khasab to harvest dates. Other popular date products include 'date syrup' ( $d\bar{u}s$ ), which is produced in a special 'date syrup basket' (*tak*). After the 'hot, dry weather' (*hēriq*) of summer, Kumzaris begin their 'autumn migration' (*hōțir*) back to Kumzar. These eco-cultural coastal migrations (Dostal 1972) are a cultural adaptation to the seasonal changes of the climate and environment. Almost the entire population of Kumzar participates in these seasonal migrations.

### 10.0. Conclusion

As important as it is for Kumzari speakers to enjoy a sustainable future and for Kumzari to thrive as a language, it is equally important for the environment, animal species, and plant life in and around Kumzar to be protected and preserved. As the traditional stewards of the tip of the Musandam Peninsula, Kumzari speakers must be at the centre of any efforts to preserve the fragile ecosystems and biodiversity in and around Kumzar. The Kumzari language is symbiotically tied to the environment of Kumzar in its nuanced identification of animal and plant species, articulation of natural marine phenomenon, and understanding of specific weather patterns. Accordingly, the erosion of Kumzari as a language threatens not just the future of this unique language and community, but also the region's natural environment and nonhuman organisms. Kumzari's biolinguistic diversity and Kumzar's biological diversity necessitate more rigorous ecological analyses as well as increased protection of its ecologies and coastographies. To halt the destruction of the natural environment and prevent the loss of Kumzari terms for the region's diverse plant and animal species and climate patterns, there is a pressing need for the people of Kumzar, along with eco-minded and ethical linguists, to work alongside biologists and ecologists to identify and preserve Musandam's biodiversity. Further cooperation might include nurturing sustainable, rather than destructive, tourist development, and pioneering technological advances, such as using wastewater to supply the nutrients necessary to produce algae and using the sugar-filled waste material from date farming as an organic energy source for the production of algae (Darley 2022) to create a circular economy.

Efforts to preserve the Kumzari language must also consider the needs of the people of Kumzar in relation to their environment. The ecological turn has enabled the humanities to "contribute to building a more ecological civilization where people meet their physical needs, their needs for wellbeing, and their need to find meaning, in ways which protect and enhance the ecosystems that life depends on" (Stibbe 2021a, 7). The pay for fishing (especially sardine fishing) is low, and due to commercial fishing, many local fish stocks have been exhausted. Thus, the livelihoods of Kumzar villagers must be secured, in addition to the ecosystems on which they depend to survive. Establishing the Musandam Peninsula as a Biosphere Reserve under UNESCO's Man and the Biosphere (MAB) Programme would help to support harmonious and sustainable interactions between biodiversity conservation efforts and the socio-economic well-being of Kumzari villagers.

The underwater environment of Kumzar is especially deserving of more ecological analysis. While we know limited terms for shells and coral, like *maḥḥar* 'oyster', *jō*'*ar* 'pearl', *gišr* 'coral', *dām* 'a type of coral', and words for some echinoderms, like 'sea cucumbers' (*kēr pāčak*) and 'sea urchins' (*lumba*), more research is needed to identify the shells and the flora of the seabed, most likely with the help of conchologists and malacologists. In fact, sea cucumber is a delicacy on the Musandam Peninsula, and sea urchins are the most abundant invertebrate in Musandam. Further, as the stars have always been central to navigation, researchers might inquire more into Kumzari celestial terminology, such as names of constellations—like *kandarkas* for 'Orion's belt'.

Additional research is needed to explore olfactory terminology related to nature. For instance, the verb *xalafa* is used to say something, namely water, 'smells bad'. Also deserving of further exploration is the use of certain materials in interactions with animals, such as 'birdlime' (*manşab*), an adhesive used in trapping birds, and materials made from animals, such as 'fish oil wood sealant' (*şill*). Future studies may also identify medicinal plants (such as *barg* 'a medicinal leaf'), trees,<sup>17</sup> berries, and flora in general.

<sup>&</sup>lt;sup>17</sup> Several trees have been identified by English speakers, such as *bādam* 'nut tree' and *şumr* 'a type of acacia tree', but more scientific identifications are needed.

Kumzari is not just a 'language' (majma) and socio-culturaltribal-clan identity, but a way of coastal living—a way of 'being' in nature and the world. Thus, the preservation of Kumzari is as much an ontological concern as it is an environmental one. A language is not an object, but a human endeavour to "create new worlds" (Pennycook 2004). Linguistic analyses embedded in ecopsychology might further explore the psychological dimensions of Kumzari (O'Dell fc), the construction of subjectivity and understandings of self in relation to nature in Kumzari culture, and environmental ethics in traditional Kumzari culture. An ecopsychological analysis can also further uncover how ecocultural factors shape important aspects of Kumzari cognition and social interdependence. Similarly, further ecocritical analyses of Kumzari oral literature will likely reveal more about how the aqua environment of Kumzar is expressed and constructed in stories about the sea, such as fishing and sailing songs, folktales, wedding songs, *qāwals*, work songs, proverbs (matal), and lullabies. In passing down the Kumzari language to the youth of Kumzar, attention might also be paid to the central role of ecology in language education.

As environmental crises are reflected through language, more work is needed to excavate how the current environmental crises of Kumzar are being expressed in language and narratives. Furthermore, the impact of the COVID-19 'plague' (*dayit*) on the villagers and ecosystem of Kumzar is still unknown. However, the coronavirus crisis stands to produce "new stories and, some would argue, a new civilization that combines radical views on language, environment, and ecolinguistics" (Zhou 2021, 470) and is founded in bio-ecological awareness. As Stibbe (2021a, 2) explains, due to the global pandemic, "there has never been a more urgent time or greater opportunity to find new stories" for "[w]e are now in a position where the old stories are crumbling due to coronavirus and the increasingly harmful impacts of climate change and biodiversity loss." Now is the time for a radical embodied ecolinguistics (Steffensen and Cowley 2021) to lie the foundation for an ecologically minded future in Kumzar rooted in the bio-ecological awareness and eco-languaging of Kumzari. The future of Kumzari—and the abundant animal and plant species in Kumzar—depend on it.

### References

- Aboelezz, Mariam. 2022. 'Translating Piracy: On the Origin of the Arabic words Qurṣān/Qarṣanah'. *British Library/Qatar Foundation Partnership*. <u>https://blogs.bl.uk/asian-and-african/2022/08/translating-piracy.html</u>
- Abram, David. 1996. *The Spell of the Sensuous: Perception and Language in a More-than-Human World*. New York: Vintage.
- Agius, Dionisius. 2007. 'Decorative Motifs on Arabian Boats: Meaning and Identity.' In *Natural Resources and Cultural Connections of the Red Sea*, edited by Janet Starkey, Paul Starkey, and Tony Wilkinson, 101–10. Oxford: British Archaeological Reports International (Series 1661).
- Aitchison, Charles Umpherston. 1929–1933. Collection of Treaties, Engagements and Sanads Relating to India and Neighbouring Countries. Vol. VII. Calcutta: Govt. of India Central Publications Branch.

- Allday, Louis. 2014. 'The British in the Gulf: An Overview'. *Qatar Digital Library*. <u>https://www.qdl.qa/en/british-gulf-over-</u> <u>view</u>
- Almojil, Dareen. 2021. 'Local Ecological Knowledge of Fisheries Charts Decline of Sharks in Data-Poor Regions'. *Marine Policy* 132/3: 104638.
- Alexander, Richard, and Arran Stibbe. 2014. 'From the Analysis of Ecological Discourse to the Ecological Analysis of Discourse'. *Language Sciences* 41: 104–10.
- Al-Ghanim, Kaltham, and Janet C. E. Watson. 2021. 'Language and Nature in Southern and Eastern Arabia'. *European Journal of Multidisciplinary Studies* 6/1: 109–19.
- Al-Jahdhami, Said. 2013. 'Kumzari of Oman: A Grammatical Analysis'. PhD dissertation, University of Florida.
- Al-Jufaili, Saud Musallam, Adnan Rashid Al-Azri, and Sulaiman Salim Al-Shuaily. 2006. 'A Preliminary Investigation on the Omani Sardines and Anchovies Stock Fluctuation: Recommendations for Future Studies'. *Pakistan Journal of Biological Sciences* 9: 1073–82.
- Al Jufaili, Saud, and Omar Al-Jahwari. 2011. 'The Omani Coastal Traditional Sardine Fishery 1994–2007: A Review'. *Journal* of Agricultural and Marine Sciences 16/1: 1–12.
- Al-Kumzari, Ali H. A. 2009. 'Kumzārī Lexicon and Grammar Notes'. MA thesis. Ḥāratu Kumzāryan.
- Al-Mahmoud, Abdulaziz. 2011. *Al-Qurṣān*. Doha: Bloomsbury Qatar Foundation Publishing.
  - 2013. *The Corsair*. Translated by Amira Noweira. Doha:
     Bloomsbury Qatar Foundation Publishing.

Al-Maktum, Shaykh Mani<sup>o</sup> ibn al-Shaykh Rashid. 'A Map of Pearl Banks in Persian Gulf' [13r] (1/2), British Library: India Office Records and Private Papers, IOR/R/15/1/616, f13, in Qatar Digital Library.

https://www.qdl.qa/archive/81055/vdc 100023403859.0x000019

- Al Naqeeb, Khaldoun. 1987. Society and State in the Gulf and Arab Peninsula. Oxfordshire: Routledge.
- Anonby, Erik J. 2008. 'Stress-induced Vowel Lengthening and Harmonization in Kumzari'. Paper presented at the 1st International Conference on Languages and Dialects in Iran, University of Sistan and Baluchestan, 28–31 October.
- ———. 2010. 'Kumzarītī [Kumzari alphabet chart]'. MA thesis, Leiden University.
- Anonby, Erik J., and Christina A. van der Wal Anonby. 2011. *Ktēb* majma Kumzārī [Kumzari Dictionary]. Khasab: Xanagho Kumzari.
- Anonby, Erik J., and Pakzad Yousefian. 2011. Adaptive Multilinguals: A Survey of Language on Larak Island. Uppsala: Uppsala University Press.
- Anonby, Erik, Simone Bettega, and Stephan Procházka. 2022.
  'Demonstratives in Musandam Arabic: Distinctive Archaisms and Innovations'. *Arabica* 69/6: 675–702.
- Anonby, Erik, and Abdul Qader Al Kumzari. Forthcoming. 'A Typology of Fish Names in Kumzari'. *Harvesting the Sea in Southeastern Arabia, vol. I*, edited by Janet C. E. Watson, Miranda J. Morris, and Erik Anonby. Cambridge: Cambridge Semitic Languages and Cultures.

- Balfour, Edward. 1885. *The Cyclopaedia of India and of Eastern and Southern Asia*. Third Edition. London: B. Quaritch.
- Balfour-Paul, Glen. 1994. The End of Empire in the Middle East: Britain's Relinquishment of Power in Her Last Three Arab Dependencies. Cambridge: Cambridge University Press.
- Bang, Jorgen, and Wilhelm Trampe. 2014. 'Aspects of an Ecological Theory of Language'. *Language Sciences* 41: 83–92.
- Bastardas-Boada, Albert. 2017. 'The Ecology of Language Contact: Minority and Majority Languages'. In *The Routledge Handbook of Ecolinguistics*, edited by Alwin Fill and Hermine Penz, 26–40. London: Routledge.
- Bauman, Andrew, John Burt, David Feary, Elise Marquis, and Paolo Usseglio. 2010. 'Tropical Harmful Algal Blooms: An Emerging Threat to Coral Reef Communities?' *Marine Pollution Bulletin* 60: 2117–22.
- Bayshak, Maryam S. 2002. 'Are there Traces of Sassanian in the Language of the Shihuh, and is Kumzari among the Affected Varieties? The Shihhi Dialect in the Light of Linguistic Science'. *Al-Khaleej* (Arabic edition) 8541: 12–17.

Belgrave, Charles. 1966. The Pirate Coast. London: G. Bell & Sons.

- Bento, Rita, David A. Feary, Andrew S. Hoey, and John A. Burt.
  2017. 'Settlement Patterns of Corals and other Benthos on Reefs with Divergent Environments and Disturbances Histories around the Northeastern Arabian Peninsula'. Frontiers in Marine Science 4.
- Biddulph, John. 1907. *The Pirates of Malabar and an Englishwoman in India Two Hundred Years Ago*. London: Smith, Elder & Co.

- Burke, Lauretta, Katie Reytar, Mark Spalding, and Allison Perry.2011. 'Reefs at Risk, Revisited.' Washington, D.C.: World Resources Institute.
- Burt, John, Hanneke Van Lavieren, and David A. Feary. 2014.'Persian Gulf Reefs: An Important Asset for Climate Science in Urgent Need of Protection'. *Ocean Challenge* 20: 49–56.
- Burt, John A., S. Coles, Hanneke van Lavieren, Oliver Taylor, Elayne Looker, and K. Samimi-Namin. 2016. 'Oman's Coral Reefs: A Unique Ecosystem Challenged by Natural and Man-related Stresses and in Need of Conservation'. *Marine Pollution Bulletin* 105/2: 498–506.
- Calvet, Louis Jean. 2006. *Towards an Ecology of World Languages*. Translated by Andrew Brown. Cambridge: Polity Press.
- Sebastian, and Ouentin Müller. 2017. Castelier, 'Omani Fishermen Play their Part in Destructive Global Shark Trade'. Middle April 18. East Eve, https://www.middleeasteve.net/features/pictures-omanifishermen-play-their-part-destructive-global-shark-trade
- Castelier, Sebastian. 2020. 'Tracking the Global Fin Trade: Shark Fishing in Oman'. *Al Jazeera*, March 11. <u>https://www.aljazeera.com/features/2020/3/11/track-</u> <u>ing-the-global-fin-trade-shark-fishing-in-oman</u>
- Coles, Stephen L. 2003. 'Coral Species Diversity and Environmental Factors in the Arabian Gulf and the Gulf of Oman: A Comparison to the Indo-Pacific Region'. *Atoll Research Bulletin* 507.
- Cook, Andrew S. 1990. Survey of the Shores and Islands of the Persian Gulf 1820–1829. Gerrards Cross: Archive Editions.

- Couto, Hildo Honório do. 2014. 'Ecological Approaches in Linguistics: A Historical Overview'. *Language Sciences* 41: 122– 28.
- ———. 2018. 'Ecosystemic Linguistics'. In *The Routledge Handbook of Ecolinguistics*, edited by Alwin Fill and Hermine Penz, 149–61. London: Routledge.
- Crampton, Jeremy W., and Stuart Elden (eds). 2007. *Space, Knowledge, and Power: Foucault and Geography*. Aldershot, UK: Ashgate.
- Crouzet, Guillemette. 2019. 'The British Empire in India, the Gulf Pearl and the Making of the Middle East'. *Middle Eastern Studies* 55/6: 864–78.
- Darley, George Charles. 2022. 'Algae the Key as KAUST Seaweed Biotech Aims to Boost Kingdom's Fisheries'. Arab News, February 8. <u>https://www.arab-news.com/node/2020451/business-economy</u>
- Davies, Charles E. 1997. *The Blood Red Arab Flag: An Investigation into Qasimi Piracy, 1797–1820.* Exeter: University of Exeter Press.
- Dawdy, Shannon Lee, and Joe Bonni. 2012. 'Towards a General Theory of Piracy'. *Anthropological Quarterly* 85/3: 673–99.
- Dent, Felix, and Shelley Clarke. 2015. 'State of the Global Market for Shark Products'. FAO Fisheries and Aquaculture Technical Paper No. 590. Rome: Food and Agriculture Organization of the United Nations. https://www.fao.org/3/i4795e/i4795e.pdf
- Dickey, Christopher. 1986. 'Va. Firm Has Big Role in Oman'. *Washington Post*. March 24.

https://www.washingtonpost.com/archive/poli-

tics/1986/03/24/va-firm-has-big-role-in-oman/5b5df7f9a476-4dee-be29-717ac6480979

- Dostal, Walter. 1972. 'The Shihuh of Northern Oman: A Contribution to Cultural Ecology'. *The Geographical Journal* 138 (Jan–Dec): 1–7.
- Dubuisson, Patricia R. 1975. 'Qasimi Piracy and the General Treaty of Peace (1820)'. MA thesis, McGill University.
- ———. 1978. 'Qāsimi Piracy and the General Treaty of Peace (1820)'. Arabian Studies 4: 55.
- Eliasson, Stig. 2015. 'The Birth of Language Ecology: Interdisciplinary Influences in Einar Haugen's *The Ecology of Language'*. *Language Sciences* 50: 78–92.
- Fill, Alwin. 2001. 'Ecolinguistics: State of the Art 1998'. In The Ecolinguistics Reader: Language, Ecology and Environment, edited by Alwin Fill and Peter Mühlhäusler, 43–53. London: Continuum.
- Finke, Peter. 2018. 'Transdisciplinary Linguistics: Ecolinguistics as a Pacemaker into a New Scientific Age'. In *The Routledge Handbook of Ecolinguistics*, edited by Alwin Fill and Hermine Penz, 406–19. London: Routledge.
- 'FO 464/42: 1955 [Jan 01–1955 Dec 31]: Arabia: Buraimi Arbitration Case; Miscellaneous Documents, Volume 3'. Arabia's Gulf Digital Archives.

https://www.agda.ae/en/catalogue/tna/fo/464/42

Fukuda, Sadashi. 1992. 'Omani Maritime Trade and the Indian Residents of Muscat in the 18th and the Beginning of the 19th Centuries'. Orient 28: 1–16.

- Ghidoni, Alessandro, and Tom Vosmer. 2021. 'Boats and Ships of the Arabian Gulf and the Sea of Oman Within an Archaeological, Historical and Ethnographic Context'. In *The Arabian Seas: Biodiversity, Environmental Challenges and Conservation Measures*, edited by Laith A. Jawad, 957–89. Cham, Switzerland: Springer.
- Graham, Gerard S. 1967. *Great Britain in the Indian Ocean: A Study* of Maritime Enterprise 1810–1850. Oxford: Clarendon Press.
- Halliday, Michael Alexander Kirkwood. 2001 [1990]. 'New Ways of Meaning: The Challenge to Applied Linguistics'. In *The Ecolinguistics Reader: Language, Ecology and Environment*, edited by Alwin Fill and Peter Mühlhäusler, 175–202. London: Continuum.
- Harré, Rom, Jens Brockmeier, and Peter Mühlhäusler. 1999. Greenspeak: A Study of Environmental Discourse. London: Routledge.
- Haugen, Einar. 1972. *The Ecology of Language*. Palo Alto, CA: Stanford University Press.
  - ———. 1987. Blessings of Babel: Bilingualism and Language Planning—Problems and Pleasures. Berlin: De Gruyter Mouton.
- Hawley, Donald. 1970. *The Trucial States*. London: George Allen & Unwin Ltd.
- Hightower, Victoria Penziner. Forthcoming. 'The Single Story: Reclaiming the Narrative About Sea Violence in the Lower Gulf Emirates'. In *Muslim Storytelling, Seafaring, and Travel Writing the Arabian Seas, the Persian Gulf, and the Indian Ocean*, edited by Nuha Alshaar, Beate Ulrike La Sala, and David Wilmsen. Leiden: Brill.

- Holes, Clive. 2004. *Modern Arabic: Structures, Functions, and Varieties*. Washington, D.C.: Georgetown University Press.
- Hopper, Matthew S. 2015a. 'Antislavery and Empire: Paradoxes of Liberation in the Western Indian Ocean.' In Slaves of One Master: Globalization and Slavery in Arabia in the Age of Empire, 142–80. New Haven, CT: Yale University Press.
  - 2015b. 'Pearls, Slaves, and Fashion'. In Slaves of One Master: Globalization and Slavery in Arabia in the Age of Empire, 80–104. New Haven, CT: Yale University Press.
- International Ecolinguistics Association. 2020. <u>https://www.eco-</u> linguistics-association.org
- Jabado, Rima W., Saif M. Al Ghais, Waleed Hamza, and Aaron Henderson. 2014. 'The Shark Fishery in the United Arab Emirates: An Interview Based Approach to Assess the Status of Sharks'. Aquatic Conservation: Marine and Freshwater Ecosystems 25/6: 800–16.
- Jabado, Rima W., Saif M. Al Ghais, Waleed Hamza, and Mahmood S. Shivji. 2015. 'Shark Diversity in the Arabian/Persian Gulf Higher than Previously Thought: Insights based on Species Composition of Shark Landings in the United Arab Emirates'. *Marine Biodiversity* 45/4: 719–31.
- Jabado, Rima W. et al. 2015. 'The Trade in Sharks and their Products in the United Arab Emirates'. *Biological Conservation* 181: 190–98.
- Jabado, Rima W. et al. 2018a. 'Troubled Waters: Threats and Extinction Risk of the Sharks, Rays and Chimaeras of the Arabian Sea and Adjacent Waters'. *Fish and Fisheries* 19: 1043– 62.

- Jabado, Rima W. et al. 2018b. 'Low Abundance of Sharks and Rays in Baited Remote Underwater Video Surveys in the Arabian Gulf'. *Scientific Reports* 8: 15597.
- James, William. 2002 [1827]. *The Naval History of Great Britain, Volume 5, 1808–1811*. London: Conway Maritime Press.
- Jayakar, Atmaram S. G. 1902. 'The Shahee Dialect of Arabic'. Journal of the Bombay Branch of the Royal Asiatic Society 21: 246–77.
- Kelly, John Barrett. 1968. Britain and the Persian Gulf, 1795– 1880. Oxford: Clarendon Press.
- Kleinen, John, and Manon Osseweijer (eds.). 2010. Pirates, Ports, and Coasts in Asia: Historical and Contemporary Perspectives. Singapore: ISEAS-Yusof Ishak Institute.
- Kostiner, Joseph. 2009. Conflict and Cooperation in the Gulf Region. New York: Springer.
- Kravchenko, Alexander. 2016. 'Two Views on Language Ecology and Ecolinguistics'. *Language Sciences* 54: 102–13.
- Li, Jia, Sune Vork Steffensen, and Guowen Huang. 2020. 'Rethinking Ecolinguistics from a Distributed Language Perspective'. *Language Sciences* 80: 101277.
- London, British Library, 'Trigonometrical Plan of the Backwater at Ras Al Khyma'. By Lieut. J. M. Guy, drawn by M. Houghton. IOR/X/3685.
- London, British Library, 'Trigonometrical Survey of Core Alladeid on the Arabian side of the Gulf of Persia. By Lieuts J. M. Guy and G. B. Brucks, H. C. Marine. Drawn by Lieut. M. Houghton, H.C.M.' IOR/X/3693.

- London, British Library, 'Trigonometrical Plan of the Harbour of El Biddah on the Arabian Side of the Persian Gulf. By Lieuts J. M. Guy and G. B. Brucks, H. C. Marine. Drawn by Lieut. M. Houghton'. IOR/X/3694.
- London, British Library, 'Survey of the Western Shore of the Persian Gulf in 1820/21 by Captain Philip Maughan and Lieutenants John Michael Guy and George Barnes Brucks'. IOR/F/4/676/18677.
- London, British Library, 'File 2902/1916: Treaties and Engagements between the British Government and the Chiefs of the Arabian Coast of the Persian Gulf'. IOR/L/PS/10/606. Qatar Digital Library.
- John Gordon. 'Gazetteer of the Persian Lorimer. Gulf Arabia: Oman and Central Kumzar'. Gazetteer of Arabia Vol. Ι [645] (694/1050).London: British Library (India Office Records and Private Papers). IOR/L/MIL/17/16/2/1, in Oatar Digital Library. https://www.gdl.ga/archive/81055/vdc 100023909214.0x00005f
- Malcolm, John. 1828. Sketches of Persia, From the Journals of a Traveller in the East. 1st edition. London: J. Murray.
- McDonald, Kevin. 'European Piracy in the Indian Ocean'. In Oxford Research Encyclopedia of Asian History. Oxford: Oxford University Press.

https://oxfordre.com/asianhistory/view/10.1093/acre-

fore/9780190277727.001.0001/acrefore-9780190277727-e-679

McKenzie, Robin. 1997. 'Downriver to Here: Geographically Spatial Deictics in Aralle-Tabulahan (Sulawesi)'. In *Referring to*  *Space: Studies in Austronesian and Papuan Languages*, edited by Gunter Senft, 39–51. Oxford: Oxford University Press.

- Middleton, Drew. 1986. 'On Vital Strait, Omani '"Traffic Cops"'. New York Times, December 22nd.
- Moyse-Bartlett, Hubert. 1966. *The Pirates of Trucial Oman*. London: Macdonald.
- Mühlhäusler, Peter. 2019. 'Revisiting Greenspeak'. In *The Second Cognitive Revolution: A Tribute to Rom Harré*, edited by Bo Allesøe Christensen, 81–88. Switzerland: Springer Nature.
- Mühlhäusler, Peter, and Adrian Peace. 2006. 'Environmental Discourses'. *Annual Review of Anthropology* 35, 457–79.
- Notarbartolo di Sciara, Giuseppe, and Rima Jabado. 2021. 'Sharks and Rays of the Arabian Sea and Adjacent Waters'. In *The Arabian Seas: Biodiversity, Environmental Challenges and Conservation Measures*, edited by Laith Jawad, 443–77. Cham, Switzerland: Springer.
- O'Dell, Emily Jane. 2020. 'Yesterday is Not Gone: Memories of Slavery in Zanzibar and Oman in Memoirs, Fiction, and Film'. *Journal of Global Slavery* 5: 357–401.
- 'Oman Notices to Mariners.' 2016 (January 28). p. 9 (English, Arabic). <u>https://members.mod.gov.om/ar-OM/RNO/HydrographicOceanicServices/Documents/no-tice2016/mon1/OMAN%20N2M%2001-16.pdf#page=20</u>
- Onley, James. 2004. 'The Politics of Protection in the Gulf: The Arab Rulers and the British Resident in the Nineteenth Century'. *New Arabian Studies* 6: 30–92.
  - ——. 2009a. 'Britain and the Gulf Shaikdoms, 1820–1971: The Politics of Protection'. CIRS Occasional Paper No. 4. Doha:

Center for International and Regional Studies Georgetown University School of Foreign Service in Qatar.

- 2009b. 'The Politics of Protection: The Arabian Gulf Rulers and the Pax Britannica in the Nineteenth Century'.
   LIWA: Journal of the National Center for Documentation and Research 1/1: 25–89.
- Owfi, Fereidoon, Mahnaz Rabbaniha, S. Al-Obeid Mehana, and Faezeh Mahichi. 2015. 'Biodiversity and Distribution Patterns of Coral Reef Ecosystems in ROPME Sea Area (Inner part: Persian Gulf-Iranian waters)'. *Survey in Fisheries Sciences* 1: 21–26.
- Palmer, Bill. 2002. 'Absolute Spatial Reference and the Grammaticalisation of Perceptually Salient Phenomena'. In *Representing Space in Oceania: Culture in Language and Mind*, edited by Giovanni Bennardo, 107–57. Canberra: Pacific Linguistics.
- Pearson, Michael N. 1981. Coastal Western India: Studies from the Portuguese Records. Cambridge: Cambridge University Press.
- Pennycook, Alastair. 2004. 'Language Policy and the Ecological Turn'. *Language Policy* 3/3: 213–39.
- Peszko, Magdalena. 'Important Work: The British 1820 Survey that Charted the Gulf for the First Time'. Qatar Digital Library. <u>https://www.qdl.qa/en/important-work-british-1820-survey-charted-gulf-first-time</u>
- Prange, Sebastian R. 2013. 'The Contested Sea: Regimes of Maritime Violence in the Pre-Modern Indian Ocean'. *Journal of Early Modern History* 17/1: 9–33.

- Al-Qāsimī, Sulțān Muḥammad. 2016. *The Myth of Arab Piracy in the Gulf.* London: Routledge.
- Richardson, Neil, and Marcia S. Dorr. 2003. *The Craft Heritage of Oman*. Vol. 2. Dubai: Motivate Publishing.
- Roche, Gerald J. 2022. 'The World's Languages in Crisis (Redux): Toward a Radical Reimagining for Global Linguistic Justice'. *Emancipations: A Journal of Critical Social Analysis* 1/2, Article 8.
- Rubin, Aaron D. 2010. The Mehri Language of Oman. Leiden: Brill.
- Sato, Shohei. 2016. 'Pirates' Turned Sovereign States, 1819– 1964'. In Britain and the Formation of the Gulf States: Embers of Empire. Manchester: Manchester University Press.
- Sheline, Annelle. 2020. 'Oman's Smooth Transition Doesn't Mean its Neighbors Won't Stir Up Trouble'. Foreign Policy, January 23. <u>https://foreignpolicy.com/2020/01/23/omans-smoothtransition-saudi-arabia-uae-mbs-stir-up-trouble</u>
- Sheppard, Charles. 2000. Seas at the Millennium an Environmental Evaluation. Warwick: University of Warwick.
- Skjærvø, Prods Oktor. 1989. 'Languages of Southeast Iran: Lārestānī, Kumzārī, Baškardī'. In Compendium Linguarum Iranicarum, edited by Rüdiger Schmitt, 363–69. Wiesbaden: Ludwig Reichart.
- Souter, David, Serge Planes, Jérémy Wicquart, et al. (eds). 2021. of Coral Reefs of the World: 2020 'Status Report'. Global Coral Reef Monitoring Network (GCRMN) and International Coral Reef Initiative (ICRI). https://doi.10.59387/WOTJ9184

- Starkey, David. 1990. British Privateering Enterprise in the Eighteenth Century. Exeter Maritime Studies. Liverpool: Liverpool University Press.
  - ———. 1994. 'Pirates and Markets'. In *The Market for Seamen in the Age of Sail*, edited by Lewis R. Fischer, 59–80. Liverpool: Liverpool University Press.
- Steffensen, Sune Vork. 2007. 'Language, Ecology and Society: An Introduction to Dialectical Linguistics'. In Language, Ecology and Society: A Dialectical Approach, edited by Jorgen Christian Bang and Jorgen Døør, 3–31. London: Continuum.
- Steffensen, Sune Vork, and Stephen Cowley. 2021. 'Thinking on Behalf of the World: Radical Embodied Ecolinguistics'. In *The Routledge Handbook of Cognitive Linguistics*, edited by Xu Wen and John R. Taylor, 723–36. London: Routledge.
- Steffensen, Sune Vork, and Alwin Fill. 2014. 'Ecolinguistics: The State of the Art and Future Horizons'. *Language Sciences* 41: 6–25.
- Stibbe, Arran. 2012. 'Ecolinguistics and Globalization'. In *The Handbook of Language and Globalization*, edited by Nikolas Coupland, 406–25. Singapore: Wiley-Blackwell.
- ———. 2014. 'An Ecolinguistic Approach to Critical Discourse Studies'. *Critical Discourse Studies* 11/1: 117–28.
- ———. 2021a. Ecolinguistics: Language, Ecology and the Stories We Live by. 2nd edition. London: Routledge.

——. 2021b. 'Ecolinguistics as a Transdisciplinary Movement and a Way of Life'. In Crossing Borders, Making Connections: Interdisciplinarity in Linguistics, edited by Allison Burkette and Tamara Warhol, 71–88. Boston: De Gruyter Mouton.

- Story, G. M., William J. Kirwin and J. D. A. Widdowson. 1990. Dictionary of Newfoundland English. Toronto: University of Toronto.
- Suzuki, Hideaki. 2018. 'Chapter 3: The Making of the "Joasmee" Pirates: A Relativist Reconsideration of the Qawāsimi Piracy in the Persian Gulf'. In *In the Name of the Battle against Piracy*, edited by Atsushi Ota, 69–96. Leiden: Brill.
- Sweet, Louise. 1964. 'Piracy or Polities? Arab Societies of the Persian or Arabian Gulf, 18th Century'. *Ethnohistory* 11/3: 265–76.
- Teller, Matthew. 2014. 'The Hardship Posting to End All Hardship Postings'. *BBC News*. 25 October. <u>https://www.bbc.com/news/blogs-magazine-monitor-29761017</u>
- Thomas, Bertram. 1929. 'The Musandam Peninsula and Its People the Shihuh'. *Journal of the Royal Central Asian Society* 16/1: 71–86.
  - ———. 1930. 'The Kumzari Dialect of the Shihuh Tribe (Musandam), Arabia, and a Vocabulary'. *Journal of the Royal Asiatic Society* 62/4: 785–854.
  - ------. 1931. Alarms and Excursions in Arabia. London: George Allen & Unwin Ltd.
- UNEP: United Nations Environmental Programme. 2017. 'Global Environment Outlook: Environment for Development'. Nairobi: UNEP.
- van der Wal Anonby, Christina. 2010. 'The Mixed Persian/Arabic Heritage of Kumzari'. *Leiden Institute for Area Studies Seminar*. Leiden: Leiden University.

- ———. 2013. 'Traces of Arabian in Kumzari'. *Forty-sixth Seminar for Arabian Studies (London, 26–28 July 2013)*. London: The British Museum.
- ——. 2014. 'Traces of Arabian in Kumzari'. Proceedings of the Seminar for Arabian Studies 44: 137–46. <u>http://www.jstor.org/stable/43782857</u>
  - ——. 2015. A Grammar of Kumzari: A Mixed Perso-Arabian Language of Oman. Leiden: Leiden University.
- ———. 2019. 'Kumzari'. In *The Languages and Linguistics of West*ern Asia: An Areal Perspective, edited by Geoffrey Haig and Geoffrey Khan, 625–58. Berlin: De Gruyter Mouton.
- Verne, Jules. 1895. Captain Antifer. New York: R. F. Fenno.
- Vosmer, Tom. 1997. 'Indigenous Fishing Craft of Oman'. *The International Journal of Nautical Archaeology* 26/3: 217–35.
- Weismann, Nobert, Eric Staples, Alessandro Ghidoni, Tom Vosmer, Piotr Dziamski, and Lilli Haar. 2014. 'The Battīl and Zārūqah of Musandam, Oman'. *International Journal of Nautical Archaeology* 43/2: 413–35.
- Willis, John Thabiti. 2016. 'A Visible Silence: Africans in the History of Pearl Diving in Dubai, UAE'. In *Museums in Arabia*, edited by Karen Exell and Sarina Wakefield, 34–50. London: Routledge.
- Wilson, Arnold Talbot, Sir. 1928. *The Persian Gulf: An Historical Sketch from the Earliest Times to the Beginning of the Twentieth Century*. Oxford: Clarendon Press.
  - ——. 1954. The Persian Gulf. London: Routledge.
- Woodbridge, David, Mariam Aboelezz, and Tahani Abu Shaban. 2021. "'Piracy" in the India Office Records:

Some Historical Context'. *Qatar Digital Library*. <u>https://www.qdl.qa/en/piracy-india-office-records-some-historical-context</u>.

- World Resources Institute. 2020. 'Coral Reefs: Persian Gulf and Gulf of Oman: Importance, Status and Outlook for Coral Reefs.' *Resource Watch*. <u>https://resourcewatch.org/dashboards/coral-reefs-persian-</u> gulf-and-gulf-of-oman
- Al-Yahyai, Rashid, and Mumtaz Khan. 2015. 'Date Palm Status and Perspective in Oman'. In *Date Palm Genetic Resources and Utilization*, edited by Jameel am Al-Khayri, Shri Mohan Jain, and Dennis V Johnson, 207–40. New York: Springer.
- Zhou, Wenjuan. 2017. 'Ecolinguistics: Toward a New Harmony'. Language Sciences 62: 124–38.
- ———. 2021. 'Ecolinguistics: A Half-century Overview'. Journal of World Languages 7/3: 481–86.
- Zwemer, Samuel M. 1902. 'Three Journeys in Northern Oman'. *The Geographical Journal* 19: 54–64.