

# LANGUAGE AND NATURE IN DHOFAR\*

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**ABSTRACT** • This paper addresses the relationship between language and nature in Dhofar. We begin by considering how erosion of the environment and the relationship people have with the environment can precipitate language loss. We consider how the relationship between language and nature is expressed, referring to transcribed oral texts to illustrate points and focussing on spatial and temporal reference terms, and discuss how decoupling of the human–nature relationship contributes to language attrition. We then examine figurative language and nature in the region; in section 3, we discuss grammaticalisation of Mehri *šaff*, Šherēt *šef* to the mirative particle *šaf* ‘it transpired that’ in Mehri, *šef* in Šherēt.

**KEYWORDS** • Modern South Arabian, Mehri, Šherēt, nature, figurative language

## 1. Introduction

Regions of the world with greatest biodiversity are shown to exhibit greatest linguistic diversity (<http://www.pnas.org/content/109/21/8032.long>), strongly suggesting that the relationship between Language and Nature is both symbiotic and spatially and temporally determined. Indigenous languages reflect the close relationship between people and their natural environment, embodying the complex relationship humans enjoy with landscape and seasons. These connections can be broken when indigenous languages are severed from the ecosystems in which they arose, a factor that can arise through replacement of indigenous languages by dominant lingua franca, through degradation of the ecosystem, through depopulation, or through forced or

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voluntary removal of the indigenous language community from the local ecosystem. Language and nature exhibit a particularly tight symbiotic relationship in regions of the world such as Dhofar in which people have traditionally enjoyed a close relationship with the natural world. Work in recent years has examined the relationship between language and nature in different regions of the world, showing that ‘linguistic structure is not only shaped by how speakers interact with each other and with the world they live in, but also by external forces that are outside the control of individual speakers or speech communities’ (De Busser and LaPolla 2015). This paper is, however, the first to focus on the language–nature relationship within Dhofar. Our data is all first-hand fieldwork data, collected mainly in Dhofar and partially in the UK through digital audio and audio-visual recordings. Data was then checked with native speaker consultants in addition to the second author, in person, and through email, WhatsApp, SMS and phone.

In section 1 of this paper, we consider language erosion factors, and how erosion of the natural environment and the relationship people have with the environment can precipitate language loss. In section 2, we examine the language–nature relationship focussing on spatial reference terms, temporal reference terms and the measurement of time, and then considering figurative language. Figurative language is closely engrained into the natural environment (Macfarlane 2015): cross-linguistically, expressions of beauty relate to what communities of speakers find beautiful in nature: in eastern Saudi Mehri a beautiful girl may be referred to as *ṭōhī* ‘large cumulus cloud’ (Munira al-Azraqi, p.c.); in San’ani Arabic, a young girl is described as *xaḍra* ‘green’ due to her freshness, where ‘green’ in English would be interpreted as naive; in English, beauty is associated with spring in relation to the cold of winter, or to summer, as we see in Shakespeare’s ‘Shall I compare thee to a summer’s day?’ (Sonnet 18). We show that much figurative language in the languages of Dhofar cannot be understood fully once the human–nature relationship decays. Figurative language may in turn induce grammaticalisation, and in section 3 we discuss the grammaticalisation of Mehri *śaff*, Šherēt *śef* ‘track’ to the mirative particle *śaf* ‘it transpired that’ in Mehri, *śef* in Šherēt, and present two illustrative texts on tracking in Mehri in which concrete and figurative uses of the term *śaff(f)* occur.

### 1.1. Erosion of language and the environment

Language erosion in many parts of the world has been precipitated by social change, the collapse of traditional cultural activities, and a break with the relationship people have with the natural environment. We see this in the British Isles, where modernisation, urbanisation and communication have resulted in local terms often with concise nuances losing currency and being replaced by general and superregional cover terms: in Shetland, *feevl* ‘snow falling in large flakes’ contrasts with *flukra* ‘snow falling in large, scale-lie flakes’, and regional English terms for icicle include *aquabob*, *clinkerbell*, *dagger*, *daglet*, *ickle*, *shuckle*, *shackle* (Macfarlane 2015: 87-9). Classical Arabic exhibits a plethora of terms for ‘to go’ at various times of day and for various purposes;<sup>1</sup> in Modern Standard

<sup>1</sup> As we shall see below for Modern South Arabian.

Arabic, 'to go' is predominantly expressed with the cover term *dahaba* with an adverbial phrase to express time of day or manner of moving. In Dhofar, we are at a time when members of the generation who have experienced the pre-motorised past are still alive, and thus we are able to observe the effect erosion of the environment and the human-environment relationship is having on language at the present time.

### 1.2. Social change and urbanisation

There is an absence of accurate statistics for Dhofar (<http://www.fao.org/ag/agp/agpc/doc/counprof/oman/oman.htm>). However, we know from our ethnographic work conducted with people throughout the region that in the pre-Sultan Qaboos era (pre-1970) people had no motorised vehicles and transport was by foot, by riding animal or by boat, water was collected by individuals from natural sources, and people outside the small towns on the coast lived in caves or in brushwood or stone huts they constructed themselves. The ethnographic texts recorded through the Leverhulme-funded Documentation and Ethnolinguistic Analysis of Modern South Arabian project ([http://www.leeds.ac.uk/arts/homepage/462/modern\\_south\\_arabian\\_languages](http://www.leeds.ac.uk/arts/homepage/462/modern_south_arabian_languages)) include first-hand accounts from people in their 50s and above of constructing huts and shelters for animals and people, fetching water from different sources, walking or riding great distances, producing tools and handicrafts from leaves, leather, bone, clay, stone and wood, and practising seasonal transhumance. We also know that multilingualism was widespread at this time, and that people of the interior enjoyed a symbiotic relationship with people of the small coastal towns. The common currency was Maria Theresa Dollars, but for many people a barter system operated, and townspeople would barter dried fish and imported goods for farm produce from the mountains. Frankincense would be bartered for food and clothing.

Today the region enjoys all the trappings of the modern age, with a hitherto overwhelmingly rural population becoming rapidly urban, and a significant nomadic population becoming almost wholly sedentarised. Many small towns around the gravel desert came into existence in the 1980s – Rabkut, the town from which two of the texts presented in this paper come, only came into existence in 1984. Since then there has been gradual sedentarisation of people, with, since 1976, the construction of *šaṣbiyāt* 'government-funded housing'. At various times, waves of people have abandoned life in the mountains and parts of the desert to settle in the regional centre, Salalah.

Through urbanisation and sedentarisation, life which used to be lived predominantly out of doors has become, for many, almost entirely indoor. As a result, younger generations no longer require, have, or understand the extensive knowledge and practical skills of their elders; much earlier expertise has been lost or is disregarded when imported plastic, metal and nylon alternatives replace locally produced items. Where items do continue to be produced locally, they are often made by the large migrant labour force from south-east Asia using imported artificial materials rather than the local natural materials used in the past. This we have observed particularly in the case of fishing equipment. When a society no longer discusses and passes on traditional skills, the older generation may forget, and the younger generation never need to learn, the relevant lexical items (Thomason 2015).

In an increasingly sedentary, urban way of life, traditional methods of natural resource and water management are no longer passed to the next generation, and significant degradation of the environment has occurred, with overgrazing and mismanagement of increasingly scarce water supplies, and severe overfishing on the coast. One result of environmental degradation is that plants and fauna that once played a significant role in everyday human life are now extinct or rare, and where they do remain extant they no longer play the essential role in human life they once played. This loss of traditional knowledge, skills and habitat is one of the key factors in language endangerment in all MSAL, particularly, but not exclusively, in the lexis: the loss of tools produced from the natural environment leads to loss of lexemes and of linguistic expressions relating to these objects.

### 1.3. A dominant national language

One of the principal ways in which the language–nature relationship can be severed is through (partial) replacement of indigenous languages through dominant lingua franca. This is an effect we are witnessing in the Modern South Arabian region. The Modern South Arabian languages lack any traditional script, which means that any script-based education or communication is conducted through Arabic. The introduction of schools to the region in the 1970s and the subsequent spread of Arabic have led to particularly frequent expressions being replaced by their Arabic equivalents. Thus, we observe Arabic terms such as *maṭalan* ‘for example’ and *naḥs aš-šī* ‘the same thing’ in place of Šherēt *gens*, Mehri *gans*; *al-gīl al-gidīd* ‘the new generation’ in place of Šherēt *šaffēt idanut* and Mehri *šaffēt idanōt*; *lākin* ‘but’ in place of Šherēt *du<sup>h</sup>n* and *min du<sup>h</sup>n* (cf. Rubin 2014: 257) and Mehri *lahinnah*; *yaḥnī* ‘that is to say’ and *ṣabārah* in place of Šherēt *yaxīn* and Mehri *(y)axah*; and *tamām* ‘fine’ in place of Šherēt *ḥayšōf* and Mehri *hīs taww* ~ *histaww*.

Numbers and colours are often among the first lexical items to be lost in endangered languages, and this we see in Dhofar: older generation speakers are still able to count in the local languages, but children and many urban dwellers in their twenties count beyond 10 using the Arabic numerals. Speakers of all ages of Mahriyōt, the eastern Yemeni variety of Mehri, Mehreyyet elsewhere in Yemen, and the Mehri spoken in eastern Saudi Arabia (Munira al-Azraqi, p.c.) rarely count beyond 10 in the local language. Throughout the region, telephone phone numbers are given exclusively in Arabic, possibly due to the lack of a single-word MSAL equivalent to Arabic *ṣufr* ‘nothing’. Regarding colour terms, we observed that even children living in goat- and camel-herding villages would refer to animal colours using the Arabic terms in place of terms in the local languages: *aḥmar* ‘bay’ in place of Mehri *ōfar*, Šherēt *šofer*, *aswad* ‘black’ in place of Mehri *ḥōwar*, Šherēt *ḥōr*, and *abyaḍ* ‘white’ in place of Mehri *ūbōn*, Šherēt *lūn*. We believe this is at least in part due to the fact that children and young people rarely work with livestock today.

## 2. The language–environment relationship

The closer the relationship between people and the natural environment, the more linguistic expressions in the local languages refer to the environment and/or reflect the

human–environment relationship.<sup>2</sup> Within the MSAL domain, spatial reference points are based on topographic terms and differ according to language variety and place of the speaker. The language of quantification is frequently nature-based: daylight temporal reference points depend on the relative height and position of the sun, the passing of time is measured by reference to known traditional activities, verbs of movement differ according to the time of departure, and expressions of amounts and animal group sizes are dependent on the object of description. Here we consider spatial reference terms and measurement of time.

### 2.1 Spatial reference terms

The MSAL employ absolute spatial reference terms which correlate with topographic variation. The younger generation speakers are said by our consultants to generally recognise and employ the traditional latitudinal terms, but to replace the longitudinal terms by Arabic *šimāl* ‘north’ and *janūb* ‘south’. Several of our older Mahriyōt consultants claim that they have known *šimāl* and *janūb* since they were young and employ these to the exclusion of local terms.

For latitudinal reference terms, *šalōt* or *nšurēt* refers to the direction of the rising sun, and *ḳabalēt* the direction of the setting sun in Šherēt; these correspond to *nšarāt* and *ḳabalēt* in Mahriyōt (Nwēr Muhammad Bakrayt, p.c.), and *mašḳayš* and *ḳabalēt* or *mārēb* ~ *mārīb* in Omani Mehri. Three of these terms refer to fixed geographical locations: *šalōt* ‘the eastern region of Dhofar’, *ḳabalēt* (*ḳabalēt*) ‘the Qibla’, and *mārēb* ~ *mārēb* ‘Ma’rib’ or ‘the Ma’rib dam’.<sup>3</sup> For longitudinal reference, terms differ according to language and place of the speaker. In the mountains, the Jarbeeb (the coastal plain) and the town of Salalah, Mehri *rawram* ‘sea’, Šherēt *ramnam*, may describe a general southerly direction, and Mehri *naḡd*, Šherēt *faḡir* ‘desert’<sup>4</sup> general north (Saeed al-Mahri, p.c.). Around Taḡah and south of the mountains, Šherēt *ramnam* ‘sea’ indicates general south, and *šher* ‘mountains’ general north. In the mountains, *faḡir* ‘desert’ indicates general north (Saeed al-Awaid, p.c.). More commonly, longitudinal directions are described in terms of the direction of the flood waters: *u-mša?* (< *la-mša?*) in Mehreyyet denotes the direction in which the flood waters run, and *ḥaḳ*, *l-ḥaḳ* the direction from which the flood waters

<sup>2</sup> For example, the parrot fish, known in eastern Yemeni Mehri, Mahriyōt, as *ḡašabīt hibšayt* ‘disarmer of seven’ is said to have been thus named following an incident where seven men made a vain attempt to catch it. A text describing this story, 20130414\_MehriMo\_M005\_howGhaSbiitHib’aytGotItsName, can be accessed from ELAR (<http://elar.soas.ac.uk/deposit/0307>). According to Miranda Morris (p.c.) it ‘needed seven men to take hold of it’ because it is notoriously slippery.

<sup>3</sup> In San’ani Arabic, *ḡiblī* refers to north and *šadani* ‘towards Aden’ to south (Watson 1993). In Faiḡi, spoken on the Saudi side of the Saudi–Yemeni border, *šāmin* ‘Levant’ refers to north of the Faiḡa mountains and *yamanin* ‘Yemen’ to south of the Faiḡa mountains (Alfaiḡi 2016).

<sup>4</sup> *faḡir* in Eastern Šherēt, as in the text in 2.1.1.

emanate.<sup>5</sup> To the desert-side of the mountains, *u-mṣaʔ* roughly indicates ‘north’, since the flood waters flow in a northerly direction; seaward of the mountains, *mṣaʔ* roughly indicates ‘south’.<sup>6</sup> Such differences in spatial reference terms that correlate to topographic variation, irrespective of how closely related the language varieties are, are found in other regions of the world in which languages have systems of absolute spatial reference (Palmer 2015; cf. also Rowley 1980 for Tirol; McKenzie 1997 for Sulawesi; Palmer 2002 for Oceania).

The following short text, 20131028\_JibbaliEJ\_J019\_directions, recorded by the first author from Azad al-Kathiri in Jufa in eastern Dhofar describes spatial reference in Šherēt from the speaker’s perspective. Azad is in his 50s. He used to herd goats, but now has a governmental job and lives in the new town of Jufa in eastern Dhofar beneath the dry mountains of Jabal Samhan. *d-ēšóʔ*, cognate with Mehri *u-mṣaʔ*, indicates the direction in which the flood waters run: in this case, seaward of the mountains *d-ēšóʔ* indicates roughly ‘south’ since the waters run into the sea, and *də-ḥākaʰl*, cognate with Mehri (*l-*)*ḥaḵ*, indicates roughly north. The Arabic terms in this text: *šimāl* ‘north’, *janūb* ‘south’ and *šabārah* ‘that is to say’, are probably used to ensure that the first author understands the text. In describing ‘north’, Azad also uses the adverb *ḥaṭīh* ‘up’ and the place term *fājir* ‘desert’; in describing ‘south’, he also uses the adverbial *b-āḡaʰl* ‘down’, and says that this term may be used in addition to *də-ḥākaʰl* to describe ‘south’.

We present this text and the following texts in broad phonemic transcription with the English translation following each speaker turn. The transcription system used is that of the *Zeitschrift für Arabische Linguistik*; in addition: superscript ‘h’ indicates preaspiration of phrase-final sonorants; above vowels, the tilde ‘~’ indicates nasalisation; ‘/’ indicates a brief pause in the speech; consonantal symbols between round brackets indicate inaudible, but phonologically present, consonants in pre-pausal position; superscript <sup>A</sup> indicates Arabic words or phrases. The text was recorded in the speaker’s house in Jufa in WAV format, 44,000 Hz, 16 Bit, with a Marantz PMD661 solid-state recorder and Shure SM11 dynamic lavalier microphone. It was transcribed and translated by the first author, and checked in the UK in 2015 with Khalid Ruweya al-Mahri from the fishing village of Sadah.

### 2.1.1. Text 1: 20131028\_JibbaliEJ\_J019\_directions

*nšurēt / min tel təfzéz yu<sup>hm</sup> / bi-ḵabəlēt / m-tel tḡīd yu<sup>hm</sup> / də-ḥākaʰ(l) / <sup>A</sup>šabārah šimāl<sup>A</sup> / də-ḥākaʰ(l) / ḥaṭīh / fājir / bi-<sup>A</sup>jinū(b)<sup>A</sup> / d-ēšóʔ / b-āḡaʰ(l) / danuh <sup>A</sup>janūb<sup>A</sup> b-yšūr yō d-ēšó b-īšūr yō aḡaʰ(l) / min tel edhēb yifōš yol eremnem /*

<sup>5</sup> To say, ‘I came from downstream’, Central Omani Mehri has the phrase *nakak min šāwan* (Yahya al-Mahri, p.c.).

<sup>6</sup> In Mahriyōt, *mṣaʔ* means ‘down; downstairs’ and *ḥaḵḵ* ‘up; upstairs’; in Omani Mehri, *l-ḥaḵ* also means ‘inside’.

East / where the sun rises / and west / where the sun sets / inside / means north / inside / up / the desert / and south / south / down / that is south, people say *d-ēšóf* and people say *b-āǰa<sup>hl</sup>* / where the flood waters flow towards the sea.

## 2.2. Temporal reference points and measurement of time

Several of our documented texts make reference to a lack of watches or clocks in the pre-Qaboos era, and time was judged traditionally by the position of the sun, the direction and length of shadows, and the degree of light. Day and night are described broadly as *nhīr* ‘day’ and *bi-ḥallay* ‘night’. Some speakers use *k-ašōbaḥ* more broadly in sense of *nhīr*, and *nhīr* can be used in the sense of *k-ašōbaḥ*. For Omani Mehri, the main divisions of day and night are as follows:

*fahag* ~ *k-affēgar* ‘first light; dawn’  
*šarḥ* ‘sunrise’  
*šūbīḥan* ‘early morning after sunrise’  
*k-ašōbaḥ* ‘in the morning’  
*dwēlēban* ‘early mid-morning’ – described by the second author as when you can see sun in front of you  
*dʔawban* ‘late morning’  
*nhūran* ‘midday’  
*ka-lʔasr* ~ *alʔasr* ‘mid-afternoon’  
*ǰasarawwan* ~ *ǰasarawwan* ‘late mid-afternoon’  
*ǰasērēyan* ‘late afternoon’  
*kalʔaynī* ‘before sunset’<sup>7</sup>  
*kalāʔāni* ‘early evening’<sup>8</sup> – later than *kalʔaynī*  
*k-amǰawzaʔ* ~ *agzēʔ* ‘once the sun begins to redden’<sup>9</sup>  
*ū-maǰrāb* ‘sunset’  
*bi-ḥalliyēn* ~ *ḥāwēl d-aʔāšar* ‘first part of the night’  
*ḥallīw* ‘night’  
*bi-ḥallay* ‘at night’  
*fakḥ d-aʔāšar* ‘middle of the night’  
*tōlī d-aʔāšar* ‘end of the night’

Of these terms, the diminutives *šūbīḥan* ‘early morning after dawn before sunrise’, *dwēlēban* ‘early mid-morning’, *ǰasērēyan* ‘late afternoon’ and *kalāʔāni* ‘early evening’

<sup>7</sup> The reference of *kalʔaynī* is not universally agreed. By some speakers, it is said to refer to when the livestock return to the homestead (Musallam Hazmay al-Mahri, p.c.). For others, *kalʔaynī* refers to the period from mid-afternoon to sunset (Ali al-Mahri, Nwēr Muhammad Bakrayt, p.c.).

<sup>8</sup> Some speakers describe *kalāʔāni* as coming before *kalʔaynī*.

<sup>9</sup> *agzēʔ* can also be used colloquially in the sense of ‘sunset’.

describe times when the sun is lower in the sky than it is for their non-diminutive<sup>10</sup> cognates *k-aṣōbaḥ*, *dʔawban*, *ḡasarawwan* and *kalʔaynī*. The diminutive *bi-ḥalliyēn* ‘first part of the night’ describes a time when the darkness is less intense than for *ḥallīw* and *bi-ḥallay*; thus, diminution in height of the sun and in intensity of darkness is reflected linguistically through the diminutive morphological pattern.

The MSAL have several verbs to describe going and coming according to the time of departure. In Central Omani Mehri, traditional verbs of going are: *ḡsūm* ‘dawn to c. 7am’, *ahhawgar* ‘midday’, *šūḡūs* ‘mid-afternoon’, *ššōfaḥ* ‘just before sunset’, *abōšar* ‘twilight, early evening’, *bār* ‘night’. In western Omani Mehri, *haḡrawr* originally refers to going in the heat of the day.

Many of the nuances of these verbs have been lost in the speech of the younger generation, to be replaced by cover terms for ‘to go’, such as Central Omani Mehri and Mahriyōt *syūr* and *ghēm ~ jhēm*, Western Omani Mehri *haḡrawr*, and Šherēt *aḡād*, with time of going expressed by time adverbials. Mehri *abōšar* originally meant going after the sun had set and when the goer still had sufficient natural light to see. Today where *abōšar* continues to be used, it commonly indicates going at any time at night. The first author’s tentative hypothesis here is that the introduction of street lights now enables people to see at any time of night.

Traditional Omani Mehri verbs of coming are: *šaḡhūm* ‘early morning’, *ḡhēb* ‘around midday’, *watxaf* ‘afternoon to sunset’, *ṭwuh* ‘night’. Today, *watxaf* remains in common usage, but otherwise *nūka* (*nūkaḥ* in Mahriyōt, *zham* or *nukaḥ* in Šherēt) is used to indicate coming at any time of day together with a time adverbial.

When the sun cannot be relied upon – for example, at times of thick fog during the monsoon period, time is judged by other natural features: flowers opening and continuing to move to face the sun even when the sun is obscured, the movements of dung beetles, and the sound of a large flying beetle that comes out at sunset (Miranda Morris, p.c.).

In measuring periods of time, reference is traditionally made to known activities and shared recognition of the time it would take to carry out these activities. Musallam Hazmay al-Mahri (from Dhahbun) in the following short extract from a text recorded with a Marantz PMD661 solid-state recorder and Shure SM11 dynamic lavalier microphone describes judging the length of time between sunset and evening prayers:

20141103\_MehriDhahbun\_M017\_divisionofdayandnight

*m-bayn aḡzēʔ / m-bayn aḡīsēʔ / wḡōn msēr ḡa-ḡaṣafit min ḡawōdī / walā ḡaṣafitī trayt / ḡābū ḡa-ʔāṣaməḥ šī lā sāṣāt / ār ār ūṭōmah / walā ḡāzar ḡa-ḡalēb ḡ-ōšar bēr*

Between sunset and supper [prayer time], it will be the time it takes to walk a bend in the wadi, or two bends. In the past, people didn’t have watches. It was just that, or around the time it takes to milk ten camels.

<sup>10</sup> Or lesser diminutive – *ḡasarawwan* is also diminutive (Lonnet 2003).



### 2.3. Figurative language and the environment

The de-coupling of language and the environment results in lexical attrition, as we have seen above. It also leads to lack of comprehension of non-literal language, such as metaphors, similes and metonymy. These are not peripheral linguistic phenomena, since a typical speaker employs around 5.88 non-literal expressions in five minutes of speech (Tosey, Sullivan & Meyer 2013), and many expressions we assume to be literal are, in fact, non-literal (Traxler 2011). In Modern South Arabian, metaphors and similes are frequently environment-specific: in Mehri, a man may be described as *axahēh sīmar* ‘he looks like a *sīmar* [tree]’,<sup>11</sup> encapsulating height, uprightness, slenderness and a shock of hair; a child may be compared to *šēhaz* ‘frankincense’ because of her clinging nature; and exaggerations of amounts may be expressed through the simile *hīs abaṭḥ* ‘like dust’, e.g. *ḥābū hīs abaṭḥ* ‘there are loads of/millions of people’. The importance of recognising directional terms appears in the Mehri figurative phrase: *yiḡōrab mšā min lḥaḳ lā* ‘he doesn’t know downstream from upstream’.

Poetry is famously rich in nature-figurative language: in Mehri, *xšawr* related to ‘grue [colour]’ has the sense of ‘sea’ only in poetry; and the Šherēt line *hez min ġarb / šarif d-irḥasen* ‘wind from west / stones he licks’ refers to a man from the west taking another’s wife, who is so poor he has to lick stones. This allusion goes back to a custom in the past of people placing large stones on their stomachs to reduce the hunger pangs.

Terms are frequently introduced on first encounter of an object through extension in meaning: thus, *kalifūt* in eastern Yemeni Mehri and *kalifōt* in Bathari (Miranda Morris, p.c.) have the secondary sense of ‘spoon’. The original sense of ‘bark [tree]’ and the knowledge that tree bark was used in the recent past for stirring and as an eating implement is lost on many of the younger generation. In the second of our two texts below, we see *šaff* ‘animal track’ and *ḥašš* ‘to track an animal’ adopted to track an inanimate moving object – in this case a lorry.

Particles with a grammatical sense frequently emerge from an extension in function of words with a concrete sense. This process, commonly known as grammaticalisation typically involves a word with a lexical meaning, such as ‘head’, ‘back’ or ‘mouth’, coming to have a largely grammatical function, such as a preposition or uninflectable particle. Grammaticalisation is thought to have originated with Meillet (1958). Recent works on grammaticalisation include Hopper and Traugott (2003) and Fischer (1997). In Mehri, *axah* ‘appears to be’ in phrases such as *aḡiggīt dīmah axasēh bōkar* ‘that girl has the stature of a young female camel’ is a functional extension of the noun *xahh* ‘mouth’ (*xoh* in Šherēt) – the mouth may be the part of a person providing visual information from which first judgements are made; similarly, the mirative particle *šaf* in Mehri, *šef* in Šherēt in the sense of ‘it transpired, as it happened, really’ (Johnstone 1981, 1987; Watson 2012), is a metaphorical extension of the noun *šaff* ~ *šef* ‘track, print’.

<sup>11</sup> *Boscia arabica*, a tree of the desert and drier mountains that looks like an opened umbrella (Miranda Morris, p.c.).

*śaf* ~ *śef* is a particle the first author had pondered for some time. It is translated by Johnstone (1981, 1987) as ‘as it happened; it transpired that; probably’, by Rubin (2010, 2014) as ‘it happened/turned out that; as it happened/turned out’, and analysed by Watson (2012) as a mirative particle. During a fieldwork session in the UK in 2015, Khalid Ruweya al-Mahri pointed out that the particle *śef* in Šherēt relates to the noun *śef* ‘track’. The same interpretation for Mehri *śaf* was confirmed in conversation with several Mehri speakers during fieldwork conducted later in 2015 and 2016. Thus, we now interpret *śaf* ~ *śef* as resulting from grammaticalisation of the content word for ‘track’, *śaff* in Mehri, *śef* in Šherēt. Grammaticalisation frequently involves phonological reduction of the content word. Thus, Mehri *śaf* is reduced from the content word *śaff* through reduction of /ff/ > /f/: *śafs* ‘it turns out that she’ contrasts with *śaffas* ‘her tracks’ (cf. the text in 3.1 below).<sup>12</sup> Mehri *śaff* and Šherēt *śef* have the plural forms *śfūtan* and *əśfof* respectively, but as a particle *śaf* ~ *śef* shows no inflection. In both languages, the particle may occur in its bare form or with a pronominal suffix (Rubin 2010, 2014).

The grammaticalisation of *śaff* ~ *śef* to the particle *śaf* ~ *śef* can be understood when we consider that tracks, like fingerprints, reveal an indisputable identity that may otherwise not be recognised. From sight someone may believe they are following a camel from one herd, but on close examination of tracks discover they are tracking a camel from a different herd. The track, therefore, reveals the true identity of an animal or a person, and by semantic extension the particle *śaf/śef* is used where an action, object or event that was originally thought to be X turns out unexpectedly to be Y.

Many younger speakers use Mehri *śaf*, Šherēt *śef* accurately in sentences such as: *śinak haybit akabs haybayti śafs haybitk* ‘I saw a camel I thought was mine, but it turned out to be your camel’, but fail to appreciate the link between this particle and the vital social importance of tracking in the past. The track reveals identity, and the ability to track accurately may determine life or death. In a recent discussion, a teenage Šherēt speaker asked whether *śef* came from *śof* ‘hair’. Ali Ahmad al-Mahri, a bilingual speaker of Mehri and Šherēt, explained this lack of awareness among young people living in Salalah as resulting from a lack of earth or sand paths in the town: tracks cannot be imprinted on solid asphalt, and therefore the activity and terminology of tracking is absent in a paved environment.

### 3. Texts on tracking

The Documentation and Ethnolinguistic Analysis of Modern South Arabian (DEAMSA) project has collected a number of texts on tracking. Some describe the art of tracking, and others present factual stories about tracking. Here we present two factual stories. The texts were transcribed by the first author, and checked several times with

<sup>12</sup> *śaffas* ‘her tracks’ may be realised as *śafs* when non-focussed (compare *xaffas* and *xafs* in the third turn from the end), but *śafs* ‘it turns out that she’ can never be realised as *śaffas*.

the second author. The sound files and corresponding ELAN files will soon become accessible through ELAR (<http://elar.soas.ac.uk/deposit/0307>). Ahmad Xamis al-Mahri's account is already accessible through the Semitic Sound Archive in Heidelberg (<http://www.semarch.uni-hd.de/>), and has been previously published in transcription and translation in *The Structure of Mehri* (Watson 2012).

The first text was recorded in Rabkut by Abdullah al-Mahri (M001) with his friend Ubxayt Saeed Shel al-Mahri (M008) in WAV format, 44,000 Hz, 16 Bit, using an Olympus LS11 digital recorder. Both interviewer and speaker are from the gravel desert in Rabkut, and are in their early twenties. The second text was recorded in Rabkut by the first author in WAV format using a Marantz PDM661 solid-state recorder and PG58 microphone. It describes the speaker's first encounter as a young child with a motorised vehicle. Ahmad Xamis al-Mahri is in his 70s, and today lives in the gravel desert village of Rabkut.

### 3.1. Text 2: 20140612\_MehriRabkut\_M008\_cameltracking

20140612\_MehriRabkut\_M008\_cameltracking describes the speaker's great uncle adventure after losing one of his camels. The speaker begins by saying how camel herders are able to retrieve their livestock through following their tracks. In the end, his quest takes him to the lost camel's foal who had inherited the same track features as her dam. There is probably an error in the time period discussed: the speaker claims the camel had been lost for over a year; however, for the camel to have given birth and the camel foal to be old enough to display the same track features as her dam, it is probable that the time period was around two years. We see use of the mirative particle *šaf* in the turn:

M008: *wa-ṭlōt šaf dikm ḥaybīt / [...] ār ḥaybīt da-ḥaybith ahah / wa-ṭlōt l-šaffas /*

And it turned out that in fact that camel was just the daughter of his camel, yes, and it had the same tracks.

M001: *hinay ūbxayt bar sašid bar shēl / wa-mhaddal tay / ših ḳassēt / mhaddal tay bīs / aywah ūbxayt /*

I have Ubxayt bar Saeed bar Shel with me, and he is going to tell me, he has a story he will tell me about. Okay, Ubxayt.

M008: *aḥōm lāmēr ḥūk šarōmah fih ḥābū bāš hām fḳawdam hibērīham walā ḡšawb liham / yišadlil l-ḥaybīt bi-šaffas /*

I want to tell you know there are some people, if they lose their camels or the camels went away from them, they can find the camel by its tracks.

M001: *hmm /*

Okay.

M008: *yikawn yiḡarbam tēs l-ḥōh lā lākin wat kūsam ašfūtan da-hibērīham / yiḡarbam tēsan / yikawn bār da-ḡrawb ḥābū ykūn šīham / ykūn šīham ḥanīt / <sup>^</sup>xibrah<sup>^</sup> min bād ḥibīham w-ašimīham / ykawn da-ḡrawb bi-šaff dakmah /*

They won't know where it is, but when they find the tracks of their camels, they know them, they will know. People have, they have, what do you call it, knowledge from their fathers and grandfathers. They know from that track.

M001: *yīgarbam ḥaybīt min šaffas /*

They know the camel from its tracks.

M008: *yīgarbam ḥaybīt min šaffas / wa-šadālīl bīs tā kasyam tēs /*

They know the camel by its tracks, and they are directed by it until they find it [the camel].

M001: *ahah /*

Yes.

M008: *ṭawr hōh kūṭōn līkam bi-ḳassēt d-aʔōmī /*

Once, I'm going to tell you a story about my grandfather.

M001: *hmm /*

Okay.

M008: *aḡā / da- / ḥayb / da-ḥāmay / hammaḥ mḥammad ba.. / bar salīm /*

The brother of my mother's father. He was called Muhammad bar Salim.

M001: *hmm /*

Okay.

M008: *ṭawr d-isyūr / ḥaybī(t) dīkmah bār ḡabarūt ḥawlas / al-ād kisīs lā /*

Once he was walking. That camel had been [lost] for a year and he still hadn't found it.

M001: *ahah /*

Okay.

M008: *hīs maxṭār da-ḥarmah d-īḡayr yikays šaff d-ībīt /*

Once while he was walking he found the tracks of a camel.

M001: *bār hīs bār hīs snēt /*

She'll have been, she'll have been [lost] for a year.

M008: *bār hīs ūḡōn snēt wa-zōyad /*

She'll have been [lost] for around a year or more.

M001: *ahah /*

Yes.

M008: *bār ḡabarūt ḥawl / yikays šaff da-ḥaybīt dīkmah yīgarbas / hankūr da-sēh ḥaybith linn aḡayḡ yīḡōrab ašfūtan da-hibēr / syūr ḡayḡ štaba štabays štaba? / bi-šaff dakm wa-hēh d-ītabah d-ītabah yītabah anḥūrah / attā l-hīs kalʔay.. ḡarayb / anḥūran ūṭōmah yikays / aššaff dakm w-wīṣal <sup>A</sup>ʔazbah<sup>A</sup> /*

She'd been [lost] for a year. He found the tracks of that camel, he recognised them. He thought it was his camel, because the man knew the tracks of camels. The man went on and followed and followed it, and followed those tracks, and he kept following them all day, and then by around evening [sic], [or] midday like that he found those tracks and came to a camel camp.

M001: *mbarīk da-bēr /*

[That we would call] mbarīk da-bēr.

M008: *mbarīk da-bēr /*

mbarīk da-bēr

M001: *hmm /*

Okay.

M008: *kūsa ḥabū ḥalakmah wa-ḡlūb līham salōm / wa-ḡlūt līham bi-ḳassēt kallas / amūr hōh ḥaybīt / da-fḡadak tēs / wa-bār šīs ūḡōn snēt wa-zōyad / amūr wa-tabak tah šaff dohm tā*

kisk tah hinīkam bawmah / amawr hēh ḥābū xayban slōb / tā wat kalaynī hibēr kluh / snē hēt min šaff dōmah wa-ḡlēḡ min ḥaybitk /

He found people there and greeted them. And he told him the whole story. He said, 'I [had] a camel that I lost, and it will be over a year ago'. He said, 'and I followed the tracks until I found them here where you are.' The men said to him, 'In that case, wait until evening when the camels return and you check those tracks and look for your camel.'

M001: *hmm /*

Okay.

M008: *amūr tamām / ḥḡūr hīs kalʔaynī hibēr kluh / gruh bark ašfūtan ḡa-hibēr lyakm tā kisyah / wa-tabayh bark hibēr lyakm wa-tabayh wa-hēh ḡ-ḡayr anḥūrah anḥūrah /*

He said, 'Okay', and waited until the camels returned in the early evening. He went around the tracks of those camels until he found it [i.e. the tracks he was looking for] and he followed them among those camels and followed them and kept on going.

M001: *hibēr mēkin /*

[There were] lots of camels.

M008: *hibēr mēkin hēh / wa-hēh ḡa-ḡrūb ār šaff ḡa-hankarih ḡakm ḡa-yḡarbah /*

[There were] lots of camels. And he recognised tracks that he thought were ones he knew.

M001: *ahah /*

Yes.

M008: *yitabah / tā wīṣal šaff ḡakm hāl ḥaybīt /*

And he followed them until those tracks came to the camel.

M001: *aywah /*

Yes.

M008: *amūr aḥ-ḥābū ḡīm sēh ḥaybaytī / wa-ḥaybīt xtalafūt l-ād sēh ḡayk ḡa-ʔāšamis lā / ksīs ār ḡannitt / šxābūr ḥābū min ḥaybīt ḡimah amūr hōh kisk ḡīm sēh ḥaybaytī amawr xayban ḥaybīt ḡimah / āšamis bār nkatan / ē nkatan ḥaybīt /*

He said to the men, 'That is my camel, but the camel is different, it isn't the same as it was.' He found it was still young. He asked the men about that camel and said, 'I've found this to be my camel.' They said, 'Okay, that camel, a while ago it came to us, a camel came to us.'

M001: *ahah /*

Okay.

M008: *wa-ḥaḡḡawt / w-īs ḥaḡḡawt ḥaybīt mtōt wa-xūfūt min sirīs ḥabrits ḡimah /*

'And it gave birth, and when it gave birth, the camel died and left behind it its daughter.'

M001: *ahah /*

Yes.

M008: *wa-ḡlōt šaf ḡikm ḥaybīt /*

And it turned out that in fact that camel,

M001: *ār ḥabrīt ḡa-ḥaybith ḡayk ḡa-ḥaḡṣabīs /*

was just the daughter of the camel that he had lost.

M008: *ār ḥaybīt ḡa-ḥaybith ahah / wa-ḡlōt l-šaffas /*

was just the daughter of his camel, yes, and it had the same tracks.

- M001: *wa-ğarbīs l-šaffas /*  
And he recognised it from its tracks.
- M008: *wa-ğarbīs min šaffas dikm /*  
And he recognised it from those tracks.
- M001: *subhān allāh /*  
Praise be to God!
- M008: *šarōmah ḥābū yikawn yiğarbam li-hibērīham / wa-dīmah xubrah /*  
Now people know their camels, and that is expertise.
- M001: *bāš ār lā /*  
But some don't.
- M008: *yūrīṭs min sār ḥibīham min sār aʔamīham /*  
They inherit [the knowledge] from their fathers and from their grandfathers.
- M001: *lākin hēm ḥābū kall lā ʔār bāš min bāš /*  
But not everyone, just some of them.
- M008: *ʔār bāš min bāš /*  
Just some of them.
- M001: *yiğarbam aššaff da-ḥaybīt /*  
They recognise the tracks of camels.
- M008: *hasab da-ṭafaritisan / bāš yikawn maḫtarabūtan wa-šī yikawn da-rathakam /*  
According to the nails [on their pads]. Some are close together and some are far apart.
- M001: *aywah /*  
Yes.
- M008: *ʔfīhʔ /*  
And there is ...
- M001: *xaffas ykūn /*  
Their pads are ...
- M008: *wa-ʔfīhʔ xaffas ykūn [d-]ārayš / wa-šī xafs ḳṭayn /*  
And some have a wide pad, and some have a narrow pad.
- M001: *ahah /*  
Yes.
- M008: *mēkin ḥanūtan tā yğarbam tēsan / b-ašfūtan /*  
There are lots of things [they have to know] to recognise them by their tracks.

### 3.2. Text 3: My first experience of seeing a car

In the following text, we observe the use of environment-related metaphor: the speaker has not yet seen a large inanimate object move by itself and compares the tanker he sees with a hill or mountain, *karmaym*, due to its size. When the men then follow the tanker's tracks, the speaker adopts the term *ḥašš* 'to track prints or tracks' and *šaff* 'track, print' otherwise used to indicate human or animal tracks. In line 5, we observe use of both the mirative particle *šaf* 'it turned out to be' and the concrete noun *šaff* 'track' from which it was grammaticalised.

1. *awwal marrah fi ḥayātī šīnak sīyaryat /*  
The first time in my life I saw a car.
2. *b-amahrayyat / šīnak sīyaryat ūṭōh nḥah bātī ?awrah b-aḳā? da-bātī kākūt / ašōnī tankar / ašōnī tankar tasyūr bi-ṣayḥ / ašaynas man aḡawf w-a?ōmar aḥ-ḥābū bark aḳābī dīmah karmaym taghūm / wa-yiṣṣak /*  
In Mehreyyet! I saw a car there, we were at Awrah in the area of Kābūt, I saw a tanker. I saw a tanker moving in the gravel desert. I saw it from above and said to people, 'I think that's a mountain moving!' And I was afraid.
3. *wa-bḳaṣḳ l-hāl ḥābū la-ḥlawk / tā nakak hāl ḥaybī / wa-ḥābū / wa-mḡōran ?amūr karmaym tasyūr lā /*  
I ran to the people over there, until I reached my father and the other people. Then he said, 'A mountain doesn't move!'
4. *syawr ḥābū man ḥlakmah ḥōḥ ḥōḥ tā wiṣlan hāl amkōn man hāl šīnak tēs /*  
The people went from there, until we got to the place where I had seen it.
5. *ḥaybī ḥaṣṣ sīyaryat saf tankar taghūm ḥaṣṣan aššaffas / bi-ṣayḥ taghūm /*  
My father tracked the car's tracks. It turned out it was a lorry moving. We followed its tracks. It was moving in the gravel desert.
6. *?amūr aḡayḡ la-hāl ḥaybī / ?amūr dīmah hammas sīyaryat / wa-dīmah sēh karmaym lā taghūm hēt šīnak ār sīyaryat w-assīyaryat bār ghamūt /*  
A man told my father, he said, 'That is called a sīyaryat [car]. That isn't a mountain moving, you just saw a car!' And the car had gone.

#### 4. Conclusion

Language enjoys a close relationship with the natural environment, particularly in regions where people share their everyday lives with nature. This relationship can be seen in the lexis of a language and in the use of figurative language. Dhofar until the recent past was a region in which people made, gathered, farmed or bartered materials for food, water, shelter, tools, medical treatment and clothing. Today no one relies entirely on the land and the sea. Here and in other regions of the world that have experienced rapid sedentarisation and urbanisation, a break in the human–natural environment relationship is reflected in a loss of use and/or of understanding of lexemes and figurative expressions. This paper addressed some of the ways in which the natural environment is reflected in language and in which a degradation of the environment can lead to a degradation of the lexis of a language. We plan to follow up this initial paper with further work examining the relationship between the Modern South Arabian languages and the natural environment.

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