Female Camel Nomenclature among Arabia's Bedouins

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The camel's cultural importance among the nomads of Arabia can be attributed to its critical role over the centuries in ensuring the people's survival. Its status explains the herders' detailed knowledge of the animal and their breeding expertise. As a result, an extensive classification system of camel naming prevails among Bedouin Arabs. The category names assigned, in particular to the females, serve as "information packages" that transmit traditional knowledge from one generation to the next. Apparent name-loss among a younger and more urbanized generation thus reflects an erosion of this once vital knowledge. It is hoped that recording a wide range of female camel names here, and documenting their classification, will help towards the preservation of such an important knowledge system.

KEYWORDS anthropology, Arabic, Bedouin, categories, folk taxonomy, language and culture, lexical semantics, zoonymy

Introduction

The term "Arab Bedouin" evokes for many the image of nomads, their tent, and, of course, their camels. Certainly, since pre-Islamic times, Arabic poetry, epitomized in the *qasida* or ode, has extolled the virtues of this "beast of burden." The famous sixth-century poet Tarafah, for example, devotes twenty-eight of the 105 lines of an ode to a detailed description of his most cherished female camel. It should not surprise us that camel genealogies "were traced in the female line commonly as far back as ten generations [and] committed to tribal memory" (Irwin, 2010: 73).

This knowledge, then, and the camel's economic and cultural significance, are reflected in the traditional naming practices. Moreover, the camel's extensive classification, seen in the terms assigned to it, underscores Simpson's contention that "classification [...] is an absolute and minimal requirement of [...] staying alive" (1961: 3).

For pastoralists, "the mobile production of animals and animal products is a significant way of making a living" (Marx, 2006: 93) and their migratory patterns are governed by climatic and ecological conditions. Camel nomenclature, then, does not merely reflect a familiarity with the animal, but also contributes to a traditional knowledge of its breeding, domestication, husbandry, and physiognomy. Folk taxonomy can accurately describe and identify a camel in terms of numerous features, including sex, age, color, fertility, and temperament. However, such knowledge, embedded in the vast repertoire of names and the way they fit into organizational structures, is rapidly disappearing among a younger and urbanized generation. This loss is tragic for, as Harrison (2007: 26) suggests, it is this "naming game" that serves as "one of the best technologies we have for managing the resources that sustain us."

Indeed, a growing body of literature links the importance of traditional knowledge to resource management (Berkes, Colding, and Folke, 2000; Berkes, 2012; Gadgil et al., 2000; Gilchrist, Mallory, and Merkel, 2005). Cultural knowledge of the environment contributes towards sustainable management practices (Pilgrim, Smith, and Pretty, 2007; Pilgrim et al., 2008), and this, apart from an in-depth understanding of species, is linguistically encoded and communicated across generations (Maffi, 1998; 2005; Skuttnabb-Kangas, Maffi, and Harmon, 2003). Language attrition and loss of category labels lead to a shrinking of this knowledge and an ensuing loss of traditional management strategies. This paper, then, attempts to document traditional category names used by the Bedouin in order to preserve a record of knowledge and expertise that may contribute to the camel's continuing high status and utility. Due to its particular importance for the Bedouin community, the female camel will receive our main attention.

The Arabic language

Arabic belongs to the Afro-Asiatic group of languages. It is spoken natively by over 200 million people in twenty countries, spanning North Africa, the Arabian Peninsula, the Levant, and the Fertile Crescent. It is also a liturgical language for a billion Muslims around the world.

The language's literary form, known as Classical Arabic, can be traced to the sixth century, a time when countless odes or *qasidas* were expressed in it, either orally or in writing. From the thirteenth to the eighteenth century, Classical Arabic slowly evolved into today's regional variations, which exist in their spoken form only and vary extensively in their vocabulary, to the degree that someone from the Arabian Peninsula may find it difficult to understand a Moroccan speaker. Modern Standard Arabic (MSA), the language's written version used in our times, dates back to the end of the eighteenth century. Based on the classical variety, it varies slightly, however, in vocabulary and style. When Arabs from different dialectal regions meet, they resort to MSA for mutual comprehension (Ryding, 2005). The 100 camel names included in this paper are based on Classical Arabic.

Data

The onomastic dataset used for this research is comprised of 100 names representing fifty-eight distinct meanings. The data has been gathered from three Arabic dictionaries — Farāhīdi's eighth-century *Kitāb al-Ayn*, the first Arabic lexicon to be compiled; the thirteenth-century *Lisān al-Arab*, by Ibn Manzūr; and Al-Thaālibī's fourteenth-century *Fiqh al-Lugha wa Asrār al-Arabiyya*. Only categories specific to female camels have been selected for comment and whenever there is more than one name for the same concept, the synonyms reflect the regional variations Classical Arabic was developing during the period when two of the dictionaries were being compiled.

Theoretical framework and related literature

Research has shown cross-linguistic diversity in the way domains are segmented by names (Wierzbicka, 1992; Kay et al., 1997; Bowerman, 1996). For example, Arabs draw a distinction between a paternal and a maternal uncle, whereas English has only one name, *uncle*, for both. Cross-cultural studies also show that, while some languages have a large vocabulary that finely divides the color spectrum, others do not (Berlin and Kay, 1969).

In a study on how speakers of different languages categorize and name artifacts, Malt et al. (1999) show that the relationship between category recognition and object naming is not straightforward. Indeed, a cultural diversity in naming holds even when speakers of different languages perceive similarities in the objects being named.

Malt, Sloman, and Gennari (2003) cite culture as a possible reason for naming practice variation, including "the degree of cultural need to communicate about distinctions within a domain or portions of the domain" (35). Arabs historically drew their sustenance from the camel, not only by exploiting it for meat and secondary products like milk, hide, and wool, but also by using it for labor and transport. Its ability to endure the most unfavorable watering and pasturing conditions enabled pastoralists to traverse vast distances across arid regions. As a consequence, they managed to trade with scattered settlements and civilization centers in lucrative commodities such as frankincense and myrrh. Thus, the high mobility of pastoralist camel herders not only acted as a defense against more powerful sedentary neighbors, but was also a source of their commercial success, exacted from their symbiotic relationship with settled sedentary communities (Brauer, 1993). It is to this history of the Arab pastoralists and the culture-specific factors they associate with the animal that Malt, Sloman, and Gennari (2003) would attribute the extensive classification system found within the camel domain.

Harrison (2007), in his study of animal naming systems in endangered languages, asserts that what these languages do "is much more than simply naming the menagerie [...]. They afford strategies of packaging information, organizing it into hierarchies, and embedding it within names" (24-25). In documenting traditional reindeer naming among the Tofa of Siberia, for example, he notes that younger generation loss of a label such as *chary*, which expresses the concept of "a 5-year old castrated rideable reindeer," is a loss of "information packaging" efficiency — information accumulated over generations as a result of practicing a particular way of life (27). By contrast, younger Todzhu, another group of native Siberians, have retained their extensive reindeer classification system and, by learning the labels, have also acquired knowledge of "how reindeer are best classified, utilized, and domesticated" (28). According to Harrison, traditional societies use folk taxonomies to "encode, store, and transmit" knowledge from one generation to the next (31) and erosion of these complex classification systems means the loss of a traditional knowledge that has contributed to human survival.

Researchers have also noted that plant knowledge attrition, among the Bari of Venezuela, for example, has been accompanied by a diminished use of forest resources, a decline also reflected in the loss of 45 percent of plant names (Lizarralde, 2001). Similar ecological-cum-taxonomic loss is recorded among the Rofaifo of Papua New Guinea (Dwyer, 1976), the Piaroa of Venezuala (Zent, 2001), and the Saami of Norway (Anderson, 1978).

The first systematic account of camel terminology was published by Ingham (1990), who focused on the northern Arabian dialect of Saudi Arabia's Āl Murra Bedouins, but also drew comparisons with the Āl Dhafīr variety spoken by Bedouins of the north-east. Ingham presented a taxonomy based on age and color terms common to both male and female camels. A more recent study by Eades, Watson, and Al-Mahri (2013) compares camel terminology from two groups of Oman's Bedouins — speakers of the Modern South Arabian language Mehri in the south of the country and the Arabic-speaking community of the Sharqiyya region in the north. The study presents camel and camel-related names, a taxonomy based on stages in life, camel parts, camel trappings, colors, and fur types. As with similar studies, they also note that name-loss — in this case camel terminology — is accompanied by traditional knowledge and skills loss.

Female camel nomenclature

In pre-Islamic times, Arab wealth was measured in herd size. Bridal dowries and blood money were paid with camels, one hundred being the standard price (Stetkevych, 1993). In particular, the female camel, or *naqa*, was revered and its beauty and strength celebrated in poetry and Quranic verses. Bedouins developed a vast vocabulary to categorize their camels according to gender, age, color, size, fitness, behavior, and other characteristics. They also assigned names when, for example, the animals were in a group, in a caravan, or untethered at pasture. As with reindeer naming among the Tofa (Harrison, 2007), camel naming classification represents a combination of qualities which can be learned and transmitted by a single label whose information details can feed easily into breeding, herding and management practices.

The data presented in this article is divided into three major categories: milking characteristics; fertility and reproduction; and physical traits of beauty. Some categories and sub-categories are not mutually exclusive and, depending on the context, a pastoralist can refer to a camel by more than one label. As will be seen, these names are entirely different than the proper names given to pets, such as *Fido* for a dog, or *Daisy* for a cow.

Milking characteristics

Until the 1960s, camel milk was a crucial part of the pastoralist diet, sometimes being the only source of nourishment. In addition, due to its high H2O content, it was also a useful source of water (ElMahi, 2013). Consequently, there arose an extensive terminology related to milk production, sub-categories of which are milk productivity, udder size, and milking behavior.

Milk productivity

Generally, lactation length is deemed more important than high yield (Hashi, 1988), and this can vary from eight to eighteen months, with a mature female producing

more than a gallon of milk daily. Importantly, this can remain potable for a longer period than the milk of other species. Table 1 presents names and terms related to milk productivity.

Numerous names deal with milk productivity. Some are semantically general and others quite specific. A camel that produces milk may be generally referred to as $lab\bar{u}n$ or $hal\bar{u}b$, and both synonyms in Classical Arabic are used interchangeably. However, dialectal difference exists where the name $lab\bar{u}n$ seems to be used more than $hal\bar{u}b$. Moreover, the name $lab\bar{u}n$ is found in the compound, $ibn \, lab\bar{u}n$ (masculine), or *bint labun* (feminine), which literally means "the offspring of a $lab\bar{u}n$ " and refers to "a calf in its third year of age." The label then makes reference to the mother who has given birth to another calf and is producing milk for it.

Though there are nine synonyms for "a camel that produces plenty of milk," only one, *khawwāra*, has been dialectally retained. It seems the name *darūr* has undergone semantic narrowing. According to some Bedouins in Jordan, this name refers to a

Word	Transliteration	Meaning
لِقْحَة	liqḥa	"A camel in the first three months of milk production"
لڤوح	laqūķ	
لڤوح لبون حلوب مَريّ صَفِيً	labūn	"A camel that produces milk"
حَلوب	<i>ḥalūb</i>	
مَرِيّ	marī	"A camel that produces plenty of milk"
ڝؘڣؚۑۜ	șafī	
خَوّارة	khawwāra	
دَرور	darūr	
ڏخور	dhakhūr	
حَلد	jalad	
حَرْشاء	<i>ḥarshā°</i>	
حَرْشاء دَروس	darūs	
ضَفوف شفوع بکیئة ضَهول دهین صَرِماء	<i>ḍafūf</i>	
شَفوع	shafū ^c	"A camel that produces enough milk to fill two bowls in one milking"
بَكيئة	bakī∘a	"A camel that produces little milk"
ضكهول	ḍahūl	
دَهين	dahīn	
صرماء	şarmā°	
غارز	ghāriz	
غارز جَمود	jamūd	"A camel whose milk output has decreased or stopped"
جَماد	jamād	
جَدًّاء	jaddāº	
شَصوص	shaṣūṣ	

TABLE 1 MILK PRODUCTIVITY

Word	Transliteration	Meaning
ئرور	tharūr	1. "A camel that has a big udder
ؿۯٞۃ	tharra	 A camel that has a big udder and big nipples (or has a lot of milk in its udder)"
شَكِرَة	shakira	"A camel that has a full udder"
حَصور	<i>ḥaṣūr</i>	"A camel that has a small udder"
عَزوز	°azūz	
شَائِل	shā°il	 "A camel whose milk has dried up (about seven months after giving birth) and its udder is shrunken
		2. A camel that lifts its tail for copulation"

TABLE 2 UDDER SIZE

camel that can only be milked after feeding its calf, thus causing the milk to flow (from the verb *darra* "to flow"). Other Arabian Peninsula dialects retain the name *dhakhūr* for a camel whose calf has been slaughtered and who is kept for milk production. As suggested by the data provided by Eades, Watson, and Al-Mahri (2013), the name *marī* in Oman's Sharqiyya dialect has undergone semantic broadening and may refer to dairy camels in general.

Udder size

Table 2 presents names referring to udder size. The word *thar* $\bar{u}r$ is the intensive form of the verb *thar*, which means "to provide or to be full of." The root of the verb is *tharra*. Both *thar* $\bar{u}r$ and *tharra* refer to "a camel that has a big udder (or has a lot of milk in its udder)."

The root of $sh\bar{a}^{\circ}il$ is $sh\bar{a}la$ or shawala, and it means "to raise or lift something." The name $sha^{\circ}il$ represents the intensive form. Both $sh\bar{a}^{\circ}il$ and $sha^{\circ}il$ refer to "a camel whose milk has dried up" and to "a camel that lifts its tail for copulation." The words' two meanings, however, are related, in the sense that a camel which is no longer lactating is ready for copulation which it signals by lifting her tail. A semantic shift is found in Oman's dialect (Eades, Watson, and Al-Mahri, 2013) whereby the past-tense of a verb form — *shawwala* — is used for a camel that has given birth.

Milking behavior

Lactation length is influenced by milking and suckling frequency (Faye, 2005). Thus the camel's habits prior to or during the milking process also play a role in the naming process, as indicated in Table 3. It is to be noted that auevee (asūs, "a camel that cannot be milked unless it is led away from other camels," is distinguished from that the asu of some deformity in its udder." The names 'asūb, nakhūr, basūs, masūh, 'adūd, dajūr, and lafūh are descriptive in that they are all derived from the intensive form of the root used for emphasis.

Word	Transliteration	Meaning
عَصوب	°așūb	"A camel that cannot be milked unless its thighs and/or nostrils are tied with a rope"
نَخور	nakhūr	"A camel that cannot be milked unless its nostrils are massaged, or it is hit on the nose" $% \mathcal{A}^{(n)}$
بَسوس	basūs	"A camel that cannot be milked unless the person milking it, encourages the camel by uttering <i>bis bis</i> "
مَسُوح	masūķ	"A camel that cannot be milked unless the udder is stroked"
عَسوس	°asūs	"A camel that cannot be milked unless it is led away from the other camels"
عَضُوض	°aḍūḍ	"A camel that bites the person milking it (a reaction to protect its calf)"
ۻؘڋؙۅڔ	<i>ḍajūr</i>	"A camel that is difficult to milk because it gets irritated and keeps grunting during the process"
لفوح	lafūķ	"A camel that keeps kicking during the milking process"
هَدْيَة	hadya	"A camel that does not lift its leg while being milked and does not kick the milk bowl"

IA	BLE 3
MILKING	BEHAVIOR

Thus, casub derives from the root casaba, "to tie something with a piece of cloth," *nakhūr* from *nakhara*, "to rub or massage the nose of a camel to milk it," and cadūd from cadda, "to bite." The name *hadya*, however, follows a different structure and is derived from the root *hada°a*, "to be calm."

Fertility and reproduction

The camel's typical gestation period is thirteen months, and a female can produce on average no more than one calf every two years. Consequently

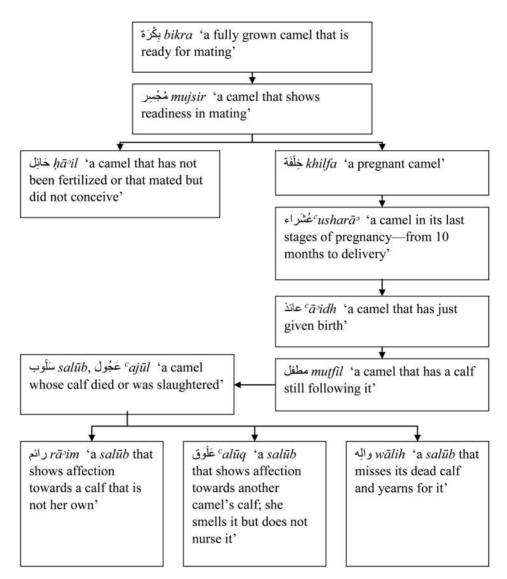
herd survival is precarious. When numbers drop below a certain level they tend to become extinguished [...]. Rebuilding a viable herd of camels requires a definable number of animals that is dependent upon the breeding circumstances. All this has important consequences for camel breeding pastoralists. (Brauer, 1993: 111)

Thus, an optimal number of fertile females is critical for sustaining a herd's size, thereby ensuring both its survival and that of the tribe. To guarantee a continuous supply, the herd-size must be maintained so that both lactating and pregnant females are available.

The importance of herd-size maintenance necessitates a thorough knowledge of breeding patterns and the relationship between the female's lactation and gestational status. Chart I illustrates the various names for female at different reproductive stages. It also includes names describing a female camel's behavior toward its young, distinctions being made on the understanding that calf presence at the teat is required for milk induction.

The names *khilfa* and *cusharā*^o both denote a pregnant camel, with the latter specifically referring to a camel "a camel in its last stages of pregnancy — from 10 months to delivery." Dialectal varieties in the Arabian Peninsula, however, indicate a

CHART 1 FERTILITY AND REPRODUCTION



semantic change, where in some varieties, *cusharā*^o refers to "a camel in the beginning of pregnancy" (Eades, Watson, and Al-Mahri, 2013) and in others "a camel who has completed a year after giving birth and has become pregnant again." On the other hand, in some dialects *khilfa*, "a pregnant camel," denotes "a camel that has just given birth," the equivalent of which in Classical Arabic is *cāoidh*. Eades, Watson, and Al-Mahri (2013) note no equivalent in the Sharqiyya dialect for "a female whose calf has died or has been slaughtered," whereas a name exists in the Mehri language. However, as shown in the chart, Classical Arabic has two terms for such a camel: *salūb* and *cajūl*. This represents a semantic loss in at least some dialects. Another

example of a semantic shift from Classical Arabic is in the word *bikra*, "a fully grown camel that is ready for mating," but this can also refer to "a female camel between one to four years of age." In the Sharqiyya dialect it refers to a "female camel from two years before having a calf" (Eades, Watson, and Al-Mahri, 2013).

Physical traits of beauty

Camel pastoralists select their animals on the basis of such features as color, hump and udder size, body hair and shape, and temperament. Their knowledge of which physical features contribute to, for example, increased milk production or fertility helps them to select for mating only those females with the preferred traits. They also base their purchase of a male camel on the features of its mother (ElMahi, 2013). Oral genealogies are kept as well, tracing the camel's lineage along the maternal lines. Pastoralists' knowledge stems from the need to distinguish between breeds, such as those suitable for riding or defense, burden, milk production capacities, or for exchange.

Other physical features that contribute to the naming process are represented in Table 4 and are descriptive of body parts. The names in this category are primarily organized around neck and leg length. The longer they are, the better.

In Classical Arabic the name $\dot{c}dafw\bar{a}^{\circ}$ refers to "a camel that has a long neck so that when she walks her head almost touches her hump." In Modern Standard Arabic, however, it is "a camel that has a long neck" only, which indicates semantic broadening. On the other hand, colloquial varieties in the Arabian Peninsula use *nujūd* to refer to this more general meaning. The root of the name *qawdā* "shecamel with a long neck and back," is *qāda/qawada* which has the semantically extended meaning of "to lead (an animal) from the front."

The names *shamardala*, *'aytal*, *'aytamūs*, and *dhi^cliba* are rarely used nowadays except in literary contexts. Instead, the most frequently occurring label used to refer to a good-looking she-camel is زينة *zayna* "good (general); good-looking," which, in addition to physical appearance, may also entail other features such as breed, manners, and overall stamina.

TABLE 4 BEAUTY

Word	Transliteration	Meaning
مُجْفَرَة	mujfara	"A camel with a great hollowness between her limbs"
دَڤواء	dafwā°	"A camel that has a long neck so that when she walks her head almost touches her hump"
قوداء	qawdā°	"A camel that has a long neck and back"
قِرْواح	qirwāķ	"A camel that has long limbs that resemble spears when she walks"
شَمَر دَلَة	shamardala	"A good-looking camel"
عَيْظل	°ayțal	"A tall, fat and good-looking came!"
عَيْطَمُوس	°ayțamūs	"A youthful, good-looking and well-mannered camel"
ذعلبة	dhi°liba	

Although there many names exist to describe the physical beauty of camels, this article will limit itself to two different sub-categories: body shape and size; and hump shape and size.

Body shape and size

Female camels' physical characteristics form the basis for other lexical sets where distinctions are made in terms of size, height, and so on. The camel's name might carry information about physical features, combined with other characteristics related, say, to speed, endurance, stamina and/or habits. For example, the word حُر جُو بُعُ *hurjūj* is used to refer to a "tall and skinny" camel, whereas the word *with a surhūb means* "a tall and fast camel." Table 5 displays names that reflect size, with a distinction being made between build and weight. These distinctions also help in determining camels' potential utility for milk-production, racing, and for bearing male-offspring that could be used for meat (Kadim and Mahgoub, 2005).

Many of the names in Table 5 are rarely used nowadays outside a literary context. However, some are related to more commonly used, descriptive forms. For example, the name $kin\bar{a}z$ is related to the more regularly used adjective *muktaniza*, which means "plumpy or fleshy," which is often used to describe women and has a positive connotation. The form $kin\bar{a}z$ is also used to describe women, but rarely in non-literary contexts. Another term is *mustawkiya*. This term is also used to describe very fleshy women.

Hump shape and size

An important physical feature that helps to determine a camel's stamina, how well it can be ridden, and whether it can be used for baggage is its hump (Kadim and Mahgoub, 2005). Table 6 presents names that distinguish camels according to their hump's shape and size.

Modern day Bedouins use the adjective *mazyūna* "beautiful" to refer to a female camel that has, among other features, a hump that is wide, round, positioned towards the back, and covered with thick ringlets of hair. They also maintain that *al-ghārib* "the part or distance between the base of the hump and the neck" should be long and high. Hump size and shape are seen as signs of a well-fed camel, thus, the larger the hump, the better fed it is; whereas a smaller hump that leans to one side is an indicator of a malnourished animal.

The name λ وماء λ *kauvmā*° is a feminine form derived from the root *kauvana* "to be huge, especially of camel hump." In dialects, the form *kauvma* has undergone semantic broadening and is used to refer to an abundance or a heap of something. *miqhād*, on the other hand, is more frequently used nowadays and is derived from *qaḥada* "the base of the hump." It is a form that indicates intensity or the emphasis of a quality, which in this case is the size of the hump. The name *miqlāg* follows the same form and is derived from the root *qalaşa* "to reduce in size or amount." The name denotes "a camel whose hump becomes fatter during the summer," implying it shrinks in winter. Linguistically, one would expect the sense of *miqlāg* to reflect the meaning of its root — a reduction in the size of the hump — however, it denotes

Word	Transliteration	Meaning
كَهَاة	kahāt	"A huge female camel"
جُلالة	julāla	
وَهْمَة	wahma	
عُلْكُوم	°ulkūm	
حَدًاء	<i>ḥadhā</i> ∘	
جَلْنْفَعة	jalanfa⁰a	"A huge and heavy female came!"
كَنْعَرَة	kan°ara	
جَسْرَة	jasra	"A huge and tall female camel"
هِرْجَاب	hirjāb	
سِرْداح	sirdāķ	
دَوْسَرَة	dawsara	"A huge and strong female camel"
قئطريس	qanțarīs	
عُذافِرَة	°udhāfira	
عَنتريس	°antarīs	"A fleshy and strong female camel"
عَرَندُس	°arandas	
مُتَلاحِكة	mutalāḥika	
دَرْمَاء	darmā°	"A camel that is big and fleshy to the extent that she does not have a hump"
عِرَمِس	°irmis	"A very fleshy female came!"
عَيرَانة	°ayrāna	
مستوكية	mustawkiya	
وجناء	wajnāº	"A fleshy female camel"
كناز	kināz	
صَرَف فَنَق نَهِيَّة مُتَوَعِّيَة	şarf	"A female camel that has little flesh"
فَنَق	fanaq	
<u>نَعِبَّ</u> ة	nahiyya	"An extremely fat female camel"
مُتُوَغِّيَة	mutawaghghiya	1
مَدْفَأَة	midfa∘a	"A female camel that is fat and very furry"
مَدْفَأَة عَهُول حُرْجُوج حَرْف	°ahūl	"A thin female came!"
حُرْجُوَج	<i>ḥurjūj</i>	
حَرْف	ḥarf	
رَهْب	rahb	
طُعُو م	ța°ūm	
شَسُوف	shasūf	"A very skinny female camel"

TABLE 5 BODY SHAPE AND SIZE

the opposite. Pragmatically, this could be a case where camel herders choose to focus on the positive rather than the negative aspect of a shrinking hump in the winter. Another name that is derived from the same root as $miql\bar{a}s$ is $qal\bar{u}s$, which carries an unrelated sense: "a she-camel with long legs; a young she-camel that can be ridden;

Word	Transliteration	Meaning
كوماء	kawmā°	"A camel that has a huge hump"
مِقحاد	miqḥād	
مِڤلاص	miqlāș	"A camel whose hump becomes fatter during the summer"
شطوط	shaţūţ	"A camel with a hump whose sides are huge"
دَكَّاء	dakkāº	"A camel whose hump is not high but whose sides are spreading"
عَرُوك	°arūk	"A camel whose hump has little fat"
غَمُوز	ghamūz	
مَيْلاء	maylā°	"A camel whose hump leans to one side"
حِدْبَار	ḥidbār	"A camel whose hump has reduced in size and disappeared"
هَدَاء	hadā°	"A camel whose hump has become less convex and more furry because of a $\ensuremath{pregnancy}\xspace'$
عَوَّاء	°awwā°	"A camel that does not have a hump"

TABLE 6 HUMP SHAPE AND SIZE

youth camels." عَرُوك *arūk* and عَمُوز ghamūz are both derived from roots that mean "to feel the body (in order to determine how much fat it has)."

Conclusion

With socioeconomic change, traditional subsistence practices are disrupted or rendered irrelevant as people adopt alternative means of survival. As the Bedouin way of life changes, so too do attitudes towards camel-breeding. Language erosion is occurring among the urbanized population, as seen in the loss of category names and their associated range of knowledge. In the process, the ecological knowledge that underpins sustainable development and management practice is also eroded.

It is hoped that these lists of names based on Classical Arabic will serve as a basis for future research using data from dialects in the various regions of the Arab world. Such scholarly investigation could identify and document in detail the changes occurring in camel category names, including changes related to lexical loss and semantic shift. Reasons could be identified, and their effects and impact on camel management practice investigated. Also, an examination could be made of the synonyms included in this paper to determine whether they are indeed a result of Arabic evolving into regional variations before the eighteenth century or else a result of other reasons such as "name avoidance taboos," as discovered in studies of other languages (Pawley, 2001: 236).

Finally, documenting these names makes a small contribution towards preserving the traditional knowledge embedded in camel nomenclature — a specialized knowledge created and accumulated over generations by a people intimately attuned to their ecological niche. It is also hoped that topics for further camel research have been highlighted, particularly within the context of such fields as biocultural diversity, cognitive anthropology, and folk classification.

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