BEDOUIN STAR-LORE IN SINAI AND THE NEGEV

By Clinton Bailey

I

Until the twentieth century the Bedouin of the Sinai peninsula and the Negev desert were no less dependent upon knowledge of the heavenly bodies than their nomadic ancestors of countless generations in the Arabian peninsula. The stars were as vital to a Bedouin trying to find his way in almost featureless stretches of the desert waste as they were to a sailor navigating the open sea. Moreover, the Bedouin needed stable indications of the seasons of the year so that they could regulate the annual activities necessary for agriculture and livestock raising; the only calendar they knew was the Muslim lunar calendar, the months of which rotate among the seasons of the year, at times appearing in the winter, at others in the spring, summer, or autumn. They found these indications in the positions of the stars. Finally, their preoccupation with the heavenly bodies and their nightly exposure to starry skies naturally led the inhabitants of the desert, like many other peoples, to find, in the movements of the stars, explanations for the natural disasters to which they were always so vulnerable.

In the twentieth century, however, despite the fact that Bedouin in Sinai and the Negev continue to spend their nights under the same stars they are no longer familiar with them. Contact with Western civilization, through the intermediary of either Ottoman, British, Egyptian, or Israeli authorities, has gradually exposed them, *de facto*, to solar calendars, in either Gregorian or Arabic form, and this has virtually removed their dependence on the stars for economic activities. Thus, as knowledge that is not needed for survival among the unlettered Bedouin is readily discarded, so by the early twentieth century star-lore became the possession of only the older people (*an-nās al-kubār*), who ultimately died. Therefore, only traces of what was once common knowledge can now be found among the present generation of 'old people' who, when they themselves were young, heard bits and pieces from their elders. In order to understand these bits and pieces, I began to gather them and arrange them. I did this, between September 1971 and August 1972, while on field trips in Sinai and the Negev where I was collecting Bedouin poetry.[1] The results are included in the present paper.

Fortunately much Bedouin star-lore had been preserved in proverbs, and was used to create imagery in poems, both of which forms lent themselves to memorization. However, while men who were children between the turn of the century and the 1920's may have heard these proverbs and poems at the time

[1] Since 1970, I have been collecting and studying Bedouin poetry in Sinai and the Negev on behalf of the Institute for Desert Research, Midrashat Sde-Boker, in the Negev.

and memorized them, they were not usually apprised of the precise meaning. Therefore their explanations regarding different stars and their movements, or regarding the actual meaning of the sayings in which the star-lore was preserved, were often various and conflicting; at times, pure conjecture. Similarly, they often conveyed the sayings themselves inexactly, and in a number of versions. To confuse the picture further, writers on Bedouin life—in particular Musil, Shuqayr, and Murray [2]—also related imprecise versions of Bedouin star-lore, as they themselves heard them from the Bedouin informants whom they had known.

I soon realized that in order to understand what the Bedouin saw in the positions and movements of the stars, I had to have precise astronomical data for these phenomena. These were readily furnished to me by Mr. Mordechai Hacke, the Director of the Lasker Planetarium, in Tel-Aviv, and by Mr. Michael Jacobson, a Ph.D. candidate in astronomy at Cornell University, who was working in the Observatory at Mitzpe-Ramon, Israel, in the autumn of 1971. In addition, I had to acquaint myself with the economic processes—date-palm cultivation, winter-grain cultivation, and animal husbandry—for the regulation of which the Bedouin of Sinai and the Negev sought guidance from the stars. Furnished with the above knowledge, I was able to discover the logic of Bedouin star-lore and put the fragmentary information which was available into order.

Most of the Bedouin star-lore that I encountered was related to me by 10 Bedouin informants, residents of Sinai and the Negev; men ranging from 50 to 80 years of age, in 1971–2. They were 'Ayd 'Awwād Jum'ah of the Muzaynah Ṣakẖānah,[3] a fisherman in the Gulf of Aqaba, date cultivator, and goat raiser;

[2] G. W. Murray, *Sons of Ishmael*, London, 1935, 164–6; Alois Musil, *Arabia Petraea*, III, Wien, 1908, *passim*; Alois Musil, *The manners and customs of the Rwala Bedouins*, New York, 1928, *passim*; Naum Bey Shuqayr, *Ta'rīkẖ Sīnā wa 'l-'Arab*, Cairo, 1916, 356–7.

[3] *Transliteration note.* I have attempted to maintain a close identity between the spoken Bedouin word and its Classical Arabic counterpart, in so far as such a counterpart exists. In general, my transliteration is consistent with that used in *BSOAS*. None the less some notes will clarify aspects of Bedouin pronunciation reflected in the transliteration.

A. (1) *ḏẖ* represents both ض and ظ and is pronounced as the emphatic correlate of ' th ' in ' this '
(2) *ḏh* represents ذ and is pronounced as ' th ' in ' this '
(3) *th* represents ث and is pronounced as ' th ' in ' think '
(4) *g* represents ق (except in the root قتل) and is pronounced as in ' g ' ' give '

B. *Diphthongs:*
(1) *aw* represents ـَو and is pronounced as either ' o ' (as in ' go ') or ' ow ' (as in ' cow ')
(2) *ay* represents ـَي and is pronounced either as in ' day ' or as ' i ' in ' pine '

C. (1) the Arabic *hamza* is shown by the mark ' (as in *gabā'il*)
(2) this mark is not used with the opening vowel of a word (thus *astabā*) or between a preposition and a definite article in liaison (thus *lil-bint* instead of *li 'l-bint*)

D. The Arabic *taṯẖdīd* is shown as a double letter (as in *fakkar*)

E. the Arabic *tā marbūṭah* is simply shown as *h* (if silent) and *t* (if pronounced)

F. the Arabic *tanwīn* is shown as: *an, in, un*

G. the third person singular pronominal suffix is shown as *(i)h* (as, *farasih* ' his mare '; *ma'ih* ' with him ')

Ḥamdān Abū Salāmah Abū Mas'ūd of the Muzaynah Darārmah, a camel raiser; Salīm Sālim Ibn Jāzī of the Tarābīn Ḥasāblih, a noted guide, camel raiser, and date cultivator; 'Awdah Sulaymān 'Alīyān of the Aḥaywāt Ḥamādāt, a goat raiser; Zmaylī Sa'īd Sālim of the 'Alaygāt Zmaylīyīn, a camel raiser and fisherman in the Gulf of Suez; Ḥusayn Salīm Ḥasan of the 'Ayāydah Salāṭnah, a goat raiser and date cultivator; Sulaymān Naṣṣār al-Hirsh of the Bayādhīyīn al-Hrūsh, a date cultivator and agriculturist; Muṣliḥ Sālim Ibn 'Āmir of the Tiyāhā 'Awāmrah, an agriculturist and date cultivator; Mūsā Ḥasan al-'Aṭāwnah of the Tiyāhā al-'Aṭāwnah, an agriculturist; and Ḥmayd as-Sudānī of the 'Azāzmah Sarāḥīn, a camel and goat raiser.

The Bedouin star-lore which I have collected in Sinai and the Negev reveals how many ancient Bedouin traditions have persisted down to the twentieth century in a society which did not record its traditions in writing. The names of stars, for example, go back to pre-Islamic times, and lines of poetry containing star-lore have been attributed, by the informants, to the epic of the Banī Hilāl tribe that was composed shortly after their migration from Arabia to North Africa in the tenth and eleventh centuries. It also sheds light on the extent to which there was cultural communication between the eastern deserts (of Syria, Jordan, and the Arabian Peninsula) and Sinai and the Negev. For example, several poems containing mention of stars which I recorded in Sinai and the Negev are, in reality, altered versions of poems that Alois Musil heard in Transjordan and Syria early in this century, and which he transcribed, in their narrative contexts, in *Arabia Petraea* and *The manners and customs of the Rwala Bedouins*. The same books also contain versions of some of the proverbs that I have recorded.

The Bedouin of Sinai and the Negev are also aware that Polaris is present in the evening sky all night throughout the year, while Canopus is absent from May until October. This proverbial steadfastness of Polaris finds expression in the saying: *filān zay al-Jidī* ' So-and-so is like Polaris ', i.e. steadfast.[5] In this role, Polaris was also employed as a poetical image, such as in the line of a poem, recorded by Musil, which sought an analogy for a hero's integrity in battle:

Ghāb an-nijm was-Suhayl, wal-Jidī mā ghāb
Fāris 'alā kull al-Jizīrah ghaṭāhā [6]

' The Pleiades disappear as Canopus too; but Polaris never sinks in the sky.
Such, too, is Faris, constantly hovering o'er the Jezira '.

If Polaris is the symbol of constancy the opposite impression is created by Canopus. Even when this star is present in the sky it rises so near to the southern horizon that its nightly appearance extends for little more than two hours. So rapid a retreat from the sky appears to the Bedouin observer as if the southern star cannot decide whether to shine or not. Therefore, when a Bedouin wishes to describe an indecisive person, Canopus naturally comes to mind, as in the saying:

Filān zay nijm as-Suhayl—yiṭla' wiy'āwid 'al-adh-dhayl

' So-and-so is like Canopus; rises and immediately returns on his tail '.[7]

Canopus' quick rise and demise also remind the Bedouin of someone who is either fleeing or attempting to hide. This observation is the source of a proverb which expresses the injustice of a situation in which the obvious perpetrator of a crime is close at hand, whereas someone entirely uninvolved in it is suspected and forced to flee. Here the great polarity between north and south is employed to highlight contrast when the Bedouin say:

Illī qatal, al-Jidī—wit-tahīm Suhayl

' While Polaris did the killing—Canopus is accused'.[8]

The proverb itself is taken from a legend that the four ' cup ' stars of the Plough (α, β, γ, δ Ursa Major) constitute the bier of a man murdered by Polaris, the bier being accompanied by the man's daughters; i.e. the stars of the ' shaft ' (ϵ, ζ, η Ursa Major).[9] The legend must be very old, for the pre-Islamic Bedouin of the sixth century called Ursa Major, Banāt an-Na'sh—lit. ' Daughters of the Bier '[10]—as indeed it is called by the Bedouin today. The fact that Ursa

[5] I first heard this saying from al-Ḥājj Zmaylī Sa'īd Sālim of the 'Alaygāt.

[6] *Manners*, 273–4 (transliteration mine). Musil translates *nijm* simply as ' stars ', whereas it certainly refers specifically to the Pleiades, as the term ' the star ' has done since the remote past (cf. C. J. Lyall (ed. and tr.), *The Mufaḍḍaliyāt*, 3 vols., Oxford and London, 1918–24, no. XXIII, l. 7; *vide* also M. H. Jurdak, *Astronomical dictionary: English–Arabic*, Beirut, 1950, ' *Najm* ', ' Pleiades ').

[7] I first heard this proverb from Muṣliḥ ibn 'Āmir of the Tiyāhā 'Awāmrah.

[8] I first heard this proverb from Muḥammad al-A'ṣam of the Tiyāhā Gdayrāt al-A'ṣam.

[9] *Vide* Jurdak, *Astronomical dictionary*, ' Ursae Majoris '.

[10] *Vide The Mufaḍḍaliyāt*, no. XCVIII, l. 15.

Major does not set throughout the night is also explained in the context of this legend: the 'daughters', dragging the bier, are constantly seeking revenge. However, instead of taking their vengeance on the true killer (Polaris) who is always at hand, they erroneously direct their suspicion at Canopus, so far away.[11] I have heard the legend expressed in two separate fragments of poetry. One says:

Bināt an-Na'ash yā dayrāt il-layl
Illī qatal al-Jidī wit-tahīm Suhayl [12]
'Daughters of the Bier, circling around all the night
While Polaris is the killer, you put Canopus to flight'.

The second:

Inqatal 'ān-na'ash w'irtajj as-samā
Illī qatal al-Jidī wi Suhayl andamā [13]
'On the bier lies the victim, and the skies do tremble;
Polaris is the killer, but Canopus is liable'.

III

Indicators of the seasons

Canopus also played a role in the indication of seasons. In particular, the appearance of Canopus just before daybreak in mid-October was taken as a sign that the Bedouin could presently expect rains to fall after a long, dry summer.[14] This experience was preserved in the saying:

In ṭila' Suhayl—lā tāmin is-sayl—law kān 'agāb il-layl [15]
'If Canopus rises, don't trust the flood (i.e. don't camp in the wādī or riverbed), even if it be the end of the night (i.e. even if Suhayl has just begun its annual appearance)'.

[11] cf. R. H. Allen, *Star-names and their meaning*, 1899 (reprint New York, 1963), 432-3; Allen relates a version told to a European traveller near the Persian Gulf, according to which the daughters do suspect Polaris and are thirsting for revenge, but are waiting for Canopus to aid them.

[12] I first heard these lines from Salīm Abū Fhayd of the Tarābīn Ḥasāblih.

[13] I heard these lines from Ḥmayd as-Sudānī of the 'Azāzmah. *Yindamā* means 'to be liable for blood revenge'.

[14] Canopus itself is anticipated among the Bedouin of the Negev Hills by the sprouting, in early September, of the white-flowered *Urginea maritima* (L.) Bak., which they call: *'ūd is-Suhayl*—the Canopus reed. According to Swaylim Sulaymān Abū Bilāyā of the 'Azāzmah Sarāḥīn, the Bedouin know, upon seeing this plant, that Canopus will rise in approximately a month and a half (when, indeed, it rises at dawn). For examples of the relief felt by Bedouin in north-eastern Arabia at the heliacal appearance of Canopus, cf. H. R. P. Dickson, *The Arab of the desert*, fourth ed., London, 1967, 51, 248, 254.

[15] I heard this saying from 'Ayd 'Awwād Jum'ah of the Muzaynah. *Sayl* is the Bedouin term for a flash-flood. The pre-Islamic Bedouin also preserved in rhyme their fear of flash-floods following the heliacal rising of Canopus (*vide* Charles Pellat, 'Dictons rimés, *anwa'* et manteaux lunaires chez les Arabes', *Arabica*, II, 1, 1955, 21); for rhymed references to the onset of rains at the rising of Canopus in south-western Arabia, *vide* R. B. Serjeant, *Prose and poetry from* [illegible]

The heliacal rising of Canopus also augured the onset of cold weather in that it coincided with the first, chill, southerly winds that blow just before dawn. Thus the Bedouin said:

In ṭila' Suhayl—barid ākhar il-layl [16]

'When Canopus rises, the end of the night is cold'.

To Bedouin livestock-raisers, however, the most important rain season was ushered in when the Pleiades (ath-Thurayyā) rose at nightfall on the eastern horizon. This takes place at the end of October, approximately two weeks after the heliacal rising of Canopus. This season, which was called *wasm ath-Thurayyā* 'the sign of the Pleiades' or simply *al-wasm* 'the sign', is reckoned to last for 75 days; the rains that fall in its duration, if indeed they come, are productive of the vital pasture that sprouts later in the Bedouin spring. The Bedouin knew that this 75-day period ended when the 'dog-star' Sirius (al-Burbārah) [17] made its appearance on the eastern horizon at nightfall in mid-January.[18] Sirius thus introduces the Bedouin winter, or cold period, called *ash-shitā*, which was known also as *al-arba'īnīyah* 'the forty days' [19] denoting the duration of winter, which lasts until late February.

During the *arba'īnīyah*, the rains that have fallen during the *wasm* act so as to bring forth the pasture of the following season,[20] the Bedouin spring, which

[16] I heard this saying from Muṣliḥ ibn 'Āmir of the Tiyāhā. Personally, I have witnessed, in mid-October, what the Bedouin of the Negev Hills consider a constant phenomenon; namely, that camels who have been sleeping facing the south get up and turn to the north, when Canopus appears, to avoid exposing their chests to the chill south wind which 'that star brings'. According to the eleventh-century astronomer, al-Bīrūnī (*The chronology of ancient nations* tr., E. Sachau, London, 1879, 337), the pre-Islamic Bedouin also anticipated the onset of the pre-dawn chill by the position of the stars. Instead of Canopus' rising, however, they looked for the conjunction of the new moon with Sagittarius, which also occurs in October. On conjunctions, *vide* p. 593, n. 47, below.

[17] Al-Burbārah appears to be the general name for Sirius in Sinai and the Negev (cf. Shuqayr, *Ta'rīkh*, 356). Perhaps it is derived from the barking noise of the 'dog-star' (C. B.). On two occasions I heard it called al-Mirzim, a name which the ancients indeed gave to Sirius' companion star, β Canis Majoris (*vide* Jurdak, *Astronomical dictionary*, 'Mirzam'). Al-Khawīyānah was another name attributed to Sirius (by Ḥusayn Salīm of the 'Ayāydah). Perhaps it is derived from the pre-Islamic month Khawwān.

[18] The fact of the *wasm*'s duration being 75 days was first told me by 'Ayd 'Awwād of the Muzaynah, and corroborated by most other informants. It is my own inference, however, that the Bedouin of Sinai and the Negev once understood the *wasm* to end with the first appearance of Sirius at nightfall; none of my informants stated the fact to me directly. Indeed, I often heard a different calculation, which will be dealt with in p. 589, n. 33, below. None the less: (1) Sirius does rise approximately 75 days after the Pleiades; and (2) the Bedouin of the Syrian desert (although their seasonal calculations differed considerably from those of the Sinai and Negev Bedouin) also deemed the first appearance of Sirius at nightfall to introduce the following season, *ash-shitā*. (Musil, *Manners*, 8.)

[19] cf. Musil, op. cit., for the durations of winter and spring according to the Rwala Bedouin, and Dickson (*Arab of the desert*, 247–8) for corresponding information regarding north-eastern Arabia where the rainy season is also called the *wasm* (but not, apparently, *wasm ath-Thurayyā*).

[20] According to 'Ayd 'Awwād of the Muzaynah, the '40 days' is divided into two parts. In the first 20 days, the waters sink into the ground; in the second 20 they enter the plants and [illegible] ripening them up for the ensuing spring season.