

ONE HUMP OR TWO? HYBRID CAMELS AND PASTORAL CULTURES: AN UPDATE

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The aim of this paper is to give a brief survey of the practice of cross-breeding the one-humped dromedary and the two-humped Bactrian camel, and to describe in rather more detail the part that hybrids play in the cultural practices and beliefs of two of the peoples who use them. The paper was first published in 1985,¹ [1] but had been written for a 1975 conference, before I read Richard Bulliet's *The Camel and the Wheel* (1975). This now classic history of the domestication of the camel gave a comprehensive account of the spread of hybridization and suggested the possible origins of the practice. My aims and materials were rather different. I wrote with no specialist knowledge of biology, geography or linguistic or cultural history, but as a social anthropologist who had done intensive fieldwork in two pastoral nomad societies that raise hybrid camels, and who was tempted to explore some of the literature on the practice in other societies.

Since the paper was first published, there has been much new research, largely biological and archaeological, most of it admirably summarized by Daniel Potts (2004). In a new account that links hybridization to climate change and economics, Bulliet (2009) does not take account of either my contribution or that of Potts, who questions some of his earlier conclusions about the origins and spread of hybridization. Here, I have only slightly revised my original paper, as it seems to me that the new research does not invalidate my general account, though the history of hybridization is now much better known and documented.² [2]

The Bactrian camel is nowadays associated primarily with the Turkic and Mongol nomads of Western and Central Asia, the dromedary with the Semitic and Indo-Iranian speaking nomads of North Africa, South and Southwest Asia. Bulliet (1975) suggests that the original wild species, found throughout the area, was Bactrian, i.e. two-humped, from which the dromedary later evolved in southern Arabia, but Potts says there is no firm evidence for wild Bactrians (*Camelus ferus*) having spread any further west than Kazakhstan; current zoological opinion favours the idea that the present domesticated dromedary and Bactrian are descendants of two different sub-species of *C. ferus* (Potts 2004: 145-7). The domestication of the two probably occurred separately by the third millennium BC, that of the Bactrian in Inner Asia, later spreading – through Bactria – west and south as far as Anatolia, Mesopotamia, and India and, but retreating to its current habitat with the advance of the domesticated dromedary under the Arabs into its recent almost exclusive occupancy of the

Middle East. This retreat of the Bactrian was facilitated by the spread of hybridization, probably begun by the Parthians in the Tigris-Euphrates valley around the second century BC, since when hybrids have continued to be bred and used in the broad belt of South-west Asia where the habitats of the two species meet, including Anatolia, Syria, Azarbaijan, Khurasan and northern Afghanistan (Bulliet 1975: 167-8; 2009: chapter 4). Potts, however, adduces evidence that the Medes and others on the Iranian plateau were practising hybridization earlier, around the early first millennium BC (2004: 153-5, 159-61). Meanwhile, in early Islamic times a breed of dromedary was developed—not a hybrid—that was perfectly adapted to the Iranian plateau, and is now found in northern Iran, Turkmenistan and northern Afghanistan (Bulliet 1975).

In the 20th century, hybridization was systematically pursued in the Soviet Union, and there is a sizeable literature on this (see the references in Gray 1971: 161-2; esp. Menges 1935 and Kolpakow 1935; early Arab references to the hybrid are listed by Pellat 1971).

TABLE I: VARIETIES OF CAMEL HYBRID

Parents		Offspring		Number of humps	Remarks
Male	Female	Male	Female		
(A)	(a)	(A)	(a)	2	Bactrian
(B)	(b)	(B)	(b)	1	Dromedary
(A)	(b)	(C)	(c)	1	First generation hybrid
(B)	(a)	(C)	(c)		
(C)	(c)	(D)	(d)	1	2nd gen - ? sterile
(A)	(c)	(E)	(e)	2	Hybrid crossed back with Bactrian
(C)	(a)	(F)	(f)	2	
(C)	(b)	(G)	(g)	1	Hybrid crossed back with dromedary
(B)	(c)	(H)	(h)	1	

Table I shows the various ways in which the two pure species and the first generation hybrid are crossed; the letter notation is used later in the paper.³ [3] Other possible crosses have been recorded: see below, and see Bulliet's summary table (1975: 144-5) giving terms for camels and their hybrids, from various sources in Arabic, Persian, Anatolian Turkish, Turkmen, Kirghiz/Kazakh and Mongolian.

ANATOLIA AND SYRIA

Burckhardt recorded details of camel breeding in this area two centuries ago. The people of Anatolia imported male Bactrians from the Crimea and used them solely for mating with Arabian dromedaries, which were brought by Turkmen and Kurds yearly in large numbers from the Syrian deserts. There were no Bactrian females in Anatolia, nor did the Arabs keep Bactrian camels of either sex.

A Bactrian male (A) mated with a dromedary (b) produced the *mâyâ* and *beshrak* hybrid (C/c), referred to by Burckhardt variously as the Anatolian, Caramanian, Armenian, Turkman or Kurdy camel. The hybrids mated together produce an intractable animal of little value (D/d), known as *daly* ('mad'). A hybrid male (C) mated with a dromedary female (b) produce a weak animal called *kufurd* (G/g), while a Bactrian male (A) mated with a hybrid female (c) produce the *tâous* (E/e):

a very handsome but small camel, with two small humps, one of which the Turkmen cut off immediately on the birth of this creature, to render it more fit for bearing a load. This breed has a very thick growth of long hair under the neck, reaching almost to the ground ... The [dromedary] of the Syrian Desert is smaller than the [hybrid]; it bears heat and thirst better than the latter, but is much affected by cold, which kills many of them even in the Desert. The [hybrid] camel has a thick woolly neck; it is larger and stouter than the camel of the Desert, carries heavier loads, and is most useful in the mountains of Anatolia, but never thrives in the Desert.

The hybrid carries about 8 cwt (400 kg) to the dromedary's 6, and is worth twice as much money (Burckhardt 1822: 637; 1830: 110-11, 256).

Later in the century, van Lennep observed that Bactrians were kept in small numbers all over southern Asia Minor, for breeding with dromedaries, a yearly supply of which was brought in from Mesopotamia. The hybrids were best adapted to the climate, but as their own offspring were degenerate they were re-crossed with fresh dromedaries and Bactrians. A few female Bactrians were raised to keep the breed pure—he saw two of them at a camp of "Koordish" nomads in the Central Anatolian plain near Ankara (1870, II: 162-3).

Leese also noted that the central plain was where the hybrids were raised. Bactrian males were brought down to these plains in winter, and from January to March they served four to five *arvana* (b) daily, returning to the mountains in the north east in spring. The hybrids, which could carry half a ton, were used

from October to April for transporting grain down to the Black Sea, and were worked in caravans as far west as Izmir and Izmit (1927: 133).

Hybrid camels still flourish in Anatolia. Among the Yörük nomads, the Bactrian is known as *bohur*; the dromedary is *boz-deve*, the male (B) being *lök* and the female (b) *kayalık*. The hybrid of *bohur* and *kayalık* is *tülü/tüylü* (Eröz 1966: 134; personal information from Peter Andrews). Particularly fine male *tülü* are raised as fighting camels in the southwest (Çalışkan 2009). According to de Planhol (1968: 44), the re-crossing of the hybrids is carefully calculated, according to whether the offspring are required for work in the central plains and mountains or on the sea coast.

AZARBAIJAN

Adam Olearius, who visited Iran in 1637-8, described the varieties of camel in use. The Bactrian was known as Bughur (*buğur*), while there were four kinds of the one-humped camel. The best camel of all, capable of carrying up to half a ton, was the Ner (*när*), offspring of the Bughur and the one-humped female which he records as Maje (*maya*). The offspring of the Ner degenerate: heavy and slow, they are called by the Turks Jurda Kaidem (*yurda-qaydan*, see below). The third kind, the Lohk (*lök*), is worth only half as much as the Ner; “They are not near so strong as the others, whence it is, that when the Persians would speak of a stout and daring man, they say he is a *Ner*, and when they would express a poor-spirited and cowardly person, they call him a *Lohk*.” The fourth kind of one-humped camel is the racing camel known as Schutturi Baad (*shuttur-i bād*, ‘wind-camel’) in Persian, and in Turkish Jeldovesi (*yel-dävəsi*)” (Olearius 1669: 228-9).

Olearius passed twice through Azarbaijan, the northeastern parts between Shamakhi and Ardabil, then inhabited by Turkic, Kurdish and Arab nomads. Many of these later joined the Shahsevan, a confederation of Turki-speaking pastoral nomadic tribes, who now migrate between the Moghan steppe and the Savalan mountains. All the Shahsevan, like the neighbouring Qaradaghi, Shaqaqi, and Shatranlu tribes, which are mainly of Kurdish origins, have for some time been quite Turkicized in culture and language, though there are numerous minor dialect differences between them and within each group. Most of the camel terminology recorded by Olearius in 1638 is retained by the present Shahsevan nomads, see Table II.⁴ [4]

The Bactrian camel is *haça-dävä*, the male being *buğur*, the female *haça-maya*. The male dromedary is *lök*, the female *arvana* (see Menges 1935: 526). *Lök* mated with *haça-maya*, or *buğur* with *arvana*, produce the much-prized hybrid, the male *när* and the female *maya* or *när-maya*. These hybrids are not

sterile, but are prevented from mating together, as they produce *balxı*, a sterile and inferior creature of no use at all. The *balxı* is thought to be very stupid and to have a tendency to stray; towards the end of April most animals (and their owners) become very restless to leave Moghan for the mountains, and camels in particular have to be restrained—but not the *balxı*, hence its nickname *yurda-qaydan*, “returning to (last) camp-site” (see above). *Buğur* and *maya* produce *jar* (see Menges 1935: 526 for the Kazakh hybrid *jarbai*), a small two-humped camel of little use, while the offspring of *när* and *haça-maya* is a similar animal called *när-balxı*. If a *lök* and a *maya*, or *när* and *arvana* mate, they produce *maya-qöyün*, a small but good one-humped camel. I was further told that if a *jar* were mated (with what?), it might produce *jar-jar*, and that if *maya-qöyün* were mated with *lök* the result would be a somewhat superior *maya-qöyün*.

TABLE II: SHAHSEVAN CAMELS

Parents		Offspring		No. of humps	Remarks
Male	Female	Male	Female		
(A) <i>buğur</i>	(a) <i>haça-maya</i>	(A) <i>buğur</i>	(a) <i>haça-maya</i>	2	Bactrian
(B) <i>lök</i>	(b) <i>arvana</i>	(B) <i>lök</i>	(b) <i>arvana</i>	1	dromedary
(A) <i>buğur</i>	(b) <i>arvana</i>	(C) <i>när</i>	(c) <i>maya</i>	1	hybrid
(B) <i>lök</i>	(a) <i>haça-maya</i>				
(C) <i>när</i>	(c) <i>maya</i>	(D) <i>balxı</i>	(d) <i>balxı</i>	1	sterile
(A) <i>buğur</i>	(c) <i>maya</i>	(E) <i>jar</i>	(e) <i>jar</i>	2	small,
(C) <i>när</i>	(a) <i>haça-maya</i>	(F) <i>när-balxı</i>	(f) <i>när-balxı</i>	2	poor
(B) <i>lök</i>	(c) <i>maya</i>	(G) <i>maya-qöyün</i>	(g) <i>maya-qöyün</i>	1	small, good
(C) <i>när</i>	(b) <i>arvana</i>				
(B) <i>lök</i>	(g)	(G) <i>maya-qöyün</i>		1	small, better
(E) <i>jar</i>	?	<i>jar-jar</i>			?

Like the Türkmén of Anatolia (Burckhardt 1822: 637) and the Durrani of Afghan Turkistan (below), the Shahsevan do not drink the milk of the camels, but leave it for the camel’s young. They crop the camel hair in early spring, especially that of the long-haired Bactrians and the hybrids, for use in stuffing bedding and also in making some kinds of rope. The main function of camels is as transport on the nomadic migration. The *när* is the preferred beast for carrying the Shahsevan *alaçığ* tent; indeed, of the other camels only the *maya* was said to be able to shoulder the complete tent, struts, roof-ring and felt mats, which together weigh nearly half a ton. A Shahsevan maxim, ignoring the breeding facts, runs: “Take a wife with thighs like a *maya*, so that she will bear a son with thighs like a *när*” (*maya buddu arvad al, när buddu oğlan doğsun*).

In the migration caravan, a household’s camels are roped head to tail, and the first one bears the tent. The second, third and maybe fourth camels are *maya*

and any others, bearing the bedding bags, storage sacks and other household equipment. The housewife rides the second camel, on top of a platform of carpets and rugs over the bedding bags, and with her ride any children not old enough to walk. Other women or unmarried girls will find a seat on the later camels. Usually the first camel is led by a son of the family acting as *däväçi* or *däväçäkän*; if there is no son old enough, and the man of the family is with the sheep, the housewife may take her camel at the head of the caravan, to steer it from there, relegating the tent-bearing camel to second place. If they are not in mourning, many families attach bells to the camels' legs and necks.

The camels also see use when any heavy loads are to be carried, for instance on a major expedition to buy a season's supplies from town, or when fetching water from some distance away, as some groups in Moghan have to do. Many nomads used to hire out their camels for commercial transport, but with the advent of motor traffic they no longer do so.

An old camel, or one that has had an accident or is in some other way unfit for further service, may be killed and eaten. The Shahsevan say the meat is good but tough, and that the fat is most beneficial, like butter. Otherwise, an old or unfit camel is fattened and taken to one of the local market towns to be sold for slaughter. Sometimes dealers (*çarpadar*) visit the camps to buy camels; other selling and buying takes place between the tribesmen.

The dromedary is far more common than the Bactrian. For one thing, it is marginally better able to cope with the terrain and climate, but more important is the fact that since the Russian frontier was closed in 1884⁵ [5] there has not been a source of fresh Bactrians to replace losses in a bad year. Only the wealthiest of Shahsevan keep Bactrians, both male and female, and solely for breeding purposes. Female Bactrians are rarely if ever bought or sold, though they may change hands as gifts or be demanded as part of a bride-wealth (*başlıx*). In 1966, when a sheep sold for about 150 tomans,⁶ [6] *buğur*, *när* and *maya* were worth between 1000 and 4000 tomans, depending on age and condition. An *arvana* could be bought for 800 to 1000 toman, a *lök* for rather less, as few buy them except for meat. There is a plentiful supply of dromedaries from further south in Iran, particularly from around Qom and the central desert, where (the Shahsevan say) they are as common as sheep and almost as cheap.

The Shahsevan nomads live in communities of 15 to 40 tent-households, within which groups of about five household co-operate to herd their flocks of sheep. In summer 1966 the five herding units of a community of 27 households with whom I was living owned the camels in Table III.

TABLE III: CAMELS IN A SHAHSEVAN COMMUNITY

Type of camel		Number of households owning:					Total
		0 camel	1 camel	2 camels	3 camels	4 camels	
(A)	<i>haça</i>	25	2	-	-	-	2
(B)	<i>lök</i>	17	10	-	-	-	10
(b)	<i>arvana</i>	8	11	6	1	1	30
(C)	<i>när</i>	10	10	5	2	-	26
(c)	<i>maya</i>	12	11	3	1	-	20
(D)	<i>balxı</i>	26	1	-	-	-	1
(G)	<i>maya-qöyün</i>	21	5	1	-	-	7
							96

The distribution of all camels per household was:

Number of households owning:	Number of camels owned:							Total
	1	2	3	4	5	6	7	
	3	5	8	2	4	4	1	27

The mean holding per household was three to four camels, including immature animals, which is regarded as the minimum for the transport of a household's tent and possessions on the migration. The leader of the community had two tents, one for each of his two wives. A few years previously he had owned 15 camels, including one *buğur*, but he sold most of them to finance an investment that would involve the permanent settlement of one household. In the spring and autumn migrations of 1966, as the investment was not finalized, the whole family moved in one tent, the other being transported by lorry. He had only six camels (five mature) left, and is counted here as one household. Of eight householders with only one or two camels, six were poor men living in the small *kümä* type of tent. The other two had *alaçığ* tents, but small ones, and they too were poor men, who used donkeys and cows for transport. The two Bactrian camels were immature, and both had been acquired as ceremonial dues (see below).

The commonest camels are the *när* male hybrid and the *arvana* female dromedary, each averaging one per household. All but eight families in the group owned at least one *arvana*: although it is a comparatively weak animal, it is useful in breeding. The *lök* is the least kept of the four main types (B, b, C, c), its most useful function being periodically to mate with *arvana* and produce more *arvana*. More often the *arvana* are taken to the owner of a *buğur* to be served; the herdsman tending the *buğur* receives about five toman as *bäläk-pulu*, or a stout herding stick, or some other present.

The core of a household's camel troupe is thus one or more *arvana*, from which are bred the stronger *när* and *maya*, and further *arvana* when needed. A few *lök* are kept, to serve the *arvana* but also as beasts of burden. *Balxı* are “accidents”, of little use. *Maya-qöyün* are useful but comparatively rare: usually the result of a mating between *lök* and *maya*, as, of the other possible parents, the *när* is usually castrated while the *arvana* is needed for breeding with *lök* or *buğur*.

Male camels come into rut between December and March, when they are said to be *qızıp* (“on heat”) or *täkä*. They foam at the mouth, puff and roar alarmingly, and indeed are liable to savage other camels and any person who goes near. The *när* can be the most dangerous at this time, and not being used for breeding it is normally castrated (*axta*) by experts called *burukçi*. At a planned mating, herdsmen will assist the male; but the camels are quite capable of copulation unassisted, as demonstrated by the existence of unwanted *balxı*. In winter, *arvana* and *maya* are clothed so as to prevent these accidents.⁷ [7] The rutting season ceases in March: birth takes place between February and April, after a gestation period of 12 to 13 months.⁸ [8]

Any camel is *köşşek* in its first year, *daylax* in its second; a young female dromedary is also *mäji*. In its third year a camel can start to carry small burdens, and is called *närçe*, *mayaçe*, *lökçe*, etc. Males become potent at five years old, females fertile at four, after which they are referred to by the number of times they have given birth: *bir-doğan*, *iki-doğan*, etc. Shahsevan say that the working life of most camels is ten years, but some live to be over twenty.⁹ [9]

Households co-operating in sheep herding also tend their camels together, making a camel herd of about 20. The 96 camels in the group discussed above formed four herds—two herding units joined their camels though their sheep were herded apart. In summer the camels of a herd sleep in a group inside the circle of tents. At dawn they are taken out to graze on the already used pasture (*örän*), and are usually full by mid-morning, when they are brought back to camp to sleep through mid-day. During the afternoon they are taken out again, this time to the uncropped pasture (*xam*). They are soon full on this, and sleep again until they are brought back to camp at dusk. In winter they are taken out at dawn and grazed the whole day on the *örän*, though they are allowed a short spell on the *xam* if necessary. At night they sleep beside their owner's tent, sheltered from the winds by mud walls or canework fences (*dävä-yeri*, “camel-place”, or *dävä-ağılı*, “camel-fold”). Their favourite summer food is the tragacanth bush (*gävän*); in winter they like the camel-thorn (*yauşan*) and a kind of yellow sorrel (*qaraqan*). The snow rarely covers the tips of the *yauşan*, so camels can still graze; but when grazing is short they are fed *nuvala*, balls of dough (*köndä*) made from barley.¹⁰ [10]

The Shahsevan water their camels only when the grazing is very sparse; particularly on the migration, when they may have to be fed as well, from collected reeds or other bushes. Camels normally need additional salt. For sheep, salt has to be ground to powder and poured on a special rock for them to lick, but for camels, which use their teeth, the salt need only be broken into lumps and handed to them on a tray or cloth. The moving parts of a camel need greasing, too, particularly in the dusty times of the year and when camels get sore feet. The fat used is from the sheep's tail.

The camel owner takes a personal interest in salting and greasing his animals, but the herding and watering are delegated to small boys or to the poorer members of the camp. The owner normally also supervises the bedding down of the camels at night, an undignified job, amusing to watch. The camels are with difficulty persuaded to get off their feet and lie down, and this is usually accomplished by some minutes of beating them about the knees with sticks, and encouragement by rasping velar fricatives. The animals are provided with special blankets (*dävä-çulu*) at night and for colder weather.

Camels play a major part as gifts at various stages of wedding festivities. When the bridewealth goods (*başlıx*) are brought to the bride's camp the day before she leaves, her father keeps the camels that bore them, which he may have demanded explicitly beforehand. The next day, as the bride arrives at her new home, she will not dismount from her horse until her new father-in-law has promised her his finest camel, and when she enters the tent she will not sit behind the bridal curtain until her mother-in-law has made a similar promise. Some weeks later, however, when her mother and father take her home for a visit, they probably give her the camel or camels that they received in the *başlıx*. These various gifts of camels to the bride, all called "foot-looseners" (*ayağ-açti*), form the nucleus of a troupe when she and her husband eventually set up a separate household.

In circumcision ceremonies, too, whose symbolism in many ways parallels that of weddings, the final act is for the father of the circumcised boy to send a camel to the *kirva*, the sponsor who held the boy during the operation and who maintains a special relationship with him and his family from that event on.¹¹

[11]

The Shahsevan do not name their camels—they name no animals but dogs, explaining that only dogs are clever enough to respond when called. Nor do they brand the camels; every man knows by sight each camel belonging to his own community and several others, and between such groups camel-theft, unlike sheep-theft, is almost unknown. Camels are distinguished by any number

of peculiarities of colouring, shape or behaviour, some descriptions of poorer animals being quite obscene. If a camel was acquired as a gift or during wedding or circumcision ceremonies, people refer to it by the name of the donor, e.g. ‘Ali Murad *nāri*, or Hajji Nauruz *mayası*. The nomads often become attached to their camels. A man in the community described above once had a superb *nār*, so strong and fierce in the rutting season that no-one dared go near it, and eventually it had to be castrated. When it grew old, the owner’s widowed mother, leader of the women of the community, forbade her son to kill or sell the animal. It was allowed to die naturally and then buried in a valley far from the camp, so that the dogs should not get at it.

In some senses, there is an association of camels with women, as there is of horses with men. All brides ride on horseback when passing from their father’s to their husband’s home for the first time, and some ride horses on the migration, displaying a female accomplishment that is much admired, but camels are felt particularly suitable mounts for women, and quite undignified for men. Moreover, the camels acquired by a newly married couple are given to the wife, and although the husband has control (and there is virtually no divorce among the Shahsevan), they remain nominally hers.

Wealthy men and chiefs exchange both horses and camels as unsolicited presents (*pişkâş*), the most valuable that can be given in traditional Shahsevan culture. Yet now Shahsevan horses are not so fine as they were, and even a good fast animal is an expensive and unproductive luxury. A fine camel, particularly the combination of efficiency and beauty in a hybrid, is perhaps the most highly prized and admired possession of a Shahsevan nomad.

KHURASAN

Travelling among the Yamut Turkmen in the early 1820’s, Fraser found the most common camel to be the dromedary, which could bear a load of 450 to 700 lb (200-320 kg). The Bactrian carried far less and was worth two-thirds as much. The preferred camel was the hybrid, very large, with short legs, shaggy hair on its neck and haunches, strong, docile, patient, able to carry 700 to 1100 lb (320-490 kg), and worth half as much again as the dromedary. The hybrids were not allowed to breed, as their offspring would be vicious and dangerous (Fraser 1825: 273).

Some decades later, Stewart visited Radkan, a Kurdish area of Khurasan, and found that the “Khurasani” camel was a hybrid of splendid size and strength, with very long hair, and able to bear cold and exposure better than the ordinary dromedary. The first cross was by far the best. According to his

information, the hybrid could carry 600 to 700 lb (c. 300 kg), twice as much as the dromedary (Stewart 1881: 526).

At present, hybrids are apparently still widely found in Khurasan. The Yamut Turkmen continue to raise them, calling them *när* or *iner* (male), and *maya* (female). Bactrians are *buğra* (A) or *ak-maya* (a). Dromedaries generally are *arvana*, whether *erkek* (B) or *inen* (b). If *iner* is mated with *inen arvana* they produce *kopert* or *kaderi/kediri* (G); the offspring of *kaderi* and *erkek arvana* is a useless crossbreed.¹² [12]

NORTHERN AFGHANISTAN

Christoph Jentsch, writing of Afghan nomads in general, states that their camels are almost all one-humped. Apparently unaware of the hybrid's existence, he says that the two-humped species is rare except in the far northeastern districts of Badakhshan and Wakhan (1973: 147). In the Tashqurghan area, Centlivres observes that the local camel is the *zard* or *arabi*, a small dromedary, and that the Bactrian *ahiri* has become rare and is used mainly for breeding the hybrid *narmaya* (1972: 132).¹³ [13] Hybrid camels were widely bred and used for transport caravans, but also, like partridges and dogs, for fighting (Ibrahimi 2007).

My information on hybrids in north-central Afghanistan comes from Durrani Pashtun nomads, recent immigrants there from Helmand in the southwest.¹⁴ [14] I presume that crossbreeding was practised in the north by Uzbeks and Turkmen before the arrival of the Pashtuns at the end of the 19th century, but I have not been able to confirm this. I was told that Wazir Muhammad Gul Khan, Governor at Mazar-i Sharif in the 1930's, himself a Mohmand Pashtun from the east and an ardent promoter of Pashtunization policies, recommended the Pashtuns in the north to go to Badakhshan, buy Bactrian females, and bring them back for sale and for breeding purposes. This advice was taken up by Shinwari and Ahmadzai Ghiljai tribesmen from the east, who had settled in the north around Shiberghan, Akcha and Mazar. One often saw in the area long caravans of enormous hybrid camels, belonging to Shinwari, who used them for commercial transport on routes not yet open to motor traffic.

The Durrani in southwestern Afghanistan have only dromedaries, clearly well adapted to the semi-desert terrain and vegetation, but also used for the annual migrations high into the central mountains. One type of camel prized in the southwest is the *bādī*, a fast dromedary, which used to be equipped with a two-man saddle for use in raiding and warfare, but which is suitable only for plain and desert country (see above on *shutur-i bād* and *yel-dāvāsi*, and Menges 1935: 528 on *yel-maya*).

Those Durrani who came north, between 1890 and 1930 for the most part, brought their ordinary dromedaries but no *bādī*, which they knew would be ill suited to the comparatively cold and rough country. Few have acquired Bactrians; on the rare occasions when they are sold in the bazaar, they fetch 10-15,000 Afs (c. £750 in 1970). But some wealthy Durrani keep a male Bactrian for stud purposes; the best female dromedaries are taken to be covered by them and bear hybrids, for which no service fee is demanded though a gift of some kind is customary. The hybrids are prized for their size, their ability to cope with cold weather and muddy terrain, and their carrying capacity of up to 60 *sīr* (450 kg).

In fact neither dromedaries nor hybrids find the going easy on the migration routes now used by the Durrani in the north, which are really suitable only for mules and donkeys. Nomads regularly lose camels, falling off cliffs or carried away by torrents. Nevertheless a Durrani nomad household of any claim to respectability maintains a caravan of at least five camels. The goat-hair cloth cover of a tent of the size used on migration weighs between 40 and 50 *sīr* (about 320 kg) and forms the load of one strong camel. Another will be needed to carry the poles and other components of the tent. The rest of the camels are loaded with bedding and other household equipment, and on one of these, at the head of the caravan, rides the housewife and her smallest children; the tent-bearing camels are likely to come last of all.¹⁵ [15]

Durrani nomads do not milk their camels, nor crop their hair systematically. On the spring migration, children pull handfuls of hair off the camels to barter as “wool” with villagers offering dried fruit. The main use of camels is as transport on the migration, and for small-time local trading.

In the mountains in the summer, these Durrani nomads meet traders from the east, who often bring large herds of camels to graze on pastures rented from them. Some of the traders, particularly Niazi tribesmen from Khost in Paktya, bring contraband cloth, guns and ammunition from Pakistan for sale; they buy camels from the Durrani, both dromedaries and hybrids, at prices nearly twice those in the northern bazaars, load them with other produce bought from the nomads and from mountain villagers, and return home to Khost. There, they use the camels to carry timber down from the valleys of Waziristan to a lorry pick-up, and in this enterprise usually recoup the purchase price of the camels in one or two loads.¹⁶ [16]

The camels mate early in the spring, when the rich northern grasses put the males into the mood, and gestation lasts 12 to 13 months. Normally a female can be expected to conceive every two or three years from her fourth or fifth

year on. Very rarely, one camel manages to mate the same spring as her last birth, to produce once a year, “like a sheep”. Special care should be taken of a new-born camel; if it hears the voice of a woman wearing a charm against jinn, it will roll over and die—everyone knows of cases where this has happened. A baby camel should follow its mother to the mountains from the beginning, to get acclimatized. Many people begin to load a camel, gradually, from the second or third year on, but a sensible man who has a promising-looking animal will not start loading it until the fourth year, or it will “burn out” and not reach its full strength.

Durrani use the Pashto term *uŝ* (female: *uŝa*) for camels in general, and have a variety of words for camels of different ages; but some terms, particularly those specifying the breed, appear to be borrowed from Turki or Persian. The Bactrian, of which they know only the male, is *arri* or *ahiri* (not *ārai*, as given by Redard 1964: 160; cf. Menges 1935: 525). Dromedaries are *rāsta* or *ārvānā*, or specifically *lūk* (B) and *ārvānā* (b). The hybrid (C/c) is *māya*, only the male being specified as *nar* or *lūk*. The terms for camels of different ages are as follows (cf. Redard 1964: 161-2):

jongëi or *taylāy*—camel in its first year.
yek-pashm—one to two years old.
jong (fem. *jonga*)—two years old.
do-pashm—two to three years old.
kawāt'—newly loaded, two to four years old
chatr—three to four years old
majī—immature female
ārvānā—mature female
lūkcha—immature male
lūk—mature male
dwa-yaŝai—“two-tooth”, about five years old.
čalor-yaŝai—“four-tooth”, about six years old.
shpaž-yaŝai—“six-tooth”, about seven years old.
nīŝ—about eight years old.¹⁷ [17]

A camel will work for 15 years if it is properly cared for, well fed and watered. It consumes five to ten times as much fodder or grazing as a sheep, but eats only twice a day, and then slowly and methodically. In spring and winter, with plentiful grazing, it rarely needs watering, while in summer and autumn, with a diet mainly of thorns, it should be watered regularly. On winter nights, a nomad household would often devote half the tent to the camels.

Having learnt Shahsevan ways, I found the Durrani lax in caring for their camels. They rarely herd them systematically, but often allow them to roam free

with minimal supervision, even when near cultivated fields. In spring only the rutting males are brought into camp at night. On migration, one of the commonest events in camp is the cry “the camels are lost”, and a day’s move is often postponed because the camels cannot be found or have strayed too far, some even reaching the next camp-site without their loads.

Like the Shahsevan, the Durrani give personal names to no animals but dogs, but almost every camel is known by a nickname describing some peculiarity of appearance, gait or temperament, or is referred to by the name of its last owner. Camels are held to be sensitive and sentimental creatures. In the mountains, as summer passes and the thorns grow hard, the camels pine for the grasses of the lowland steppe and are hard to restrain from returning north and homewards. A camel is quite inconsolable if it loses its young; and there are stories told of famous khans whose camels, when their owner died, wept and then scattered in all directions never to be heard of again.

Camels play a similar part in Durrani ceremonial to that in the Shahsevan. Camel trappings are prepared as the centre of a bride’s trousseau; a camel is often given to her father as part of the bride-wealth, and another may be given to the bride herself to “loosen her feet” (*pê ye xlase kawël*) on her arrival at her new home. Women guests at the wedding arrive in a camel caravan as long as possible, each beast loaded with colourful rugs and blankets to form a platform for its passenger. Durrani, like Shahsevan, consider camels proper riding animals for women, and horses for men.

CONCLUSIONS

Writers who have discussed the hybrid camel have often remarked on the specialized adaptations of the two pure species, for example:

The respective provinces of the two species emphasize the Bactrian’s greater tolerance of continental climate and mountainous terrain. The dromedary meets a severe test on the wind-swept plains of Turkistan and in the mountains of Anatolia, Iran and Afghanistan. Hybrids in these areas may represent attempts to overcome the dromedary’s disadvantages (Mikesell 1955: 235).

The hybrid is supposed to have the best qualities of each parent: the agility of the dromedary, and the ability of the Bactrian to work in rough terrain or snow (Leese 1927: 29-34, 133). De Planhol too argues that Turkic nomads, confined to the mountains by their Bactrian camels, were enabled to take over the plains beyond for their winter quarters by breeding a hybrid camel that could cope with both types of climate and terrain, while Arab nomads who did

not produce hybrids remained in the plains (1968: 43-44). Bulliet, however, deploys evidence that the recent distribution of the two species has less to do with biological adaptations than with “the great difference in patterns of usage between breeders of the two animals” (1975: 161). The Bactrian, originally widespread throughout the Middle East, was bred primarily in small numbers for labour, by people who had a range of other domestic animals, while large herds of dromedaries provided a complete economic base for an entire desert-dwelling nomadic society. The hybrid, he suggests, was most probably first bred by merchants, who found it an ideal pack animal, and it came to replace the Bactrian for this purpose in the regions through which the Silk Route passed, the dromedary remaining unchallenged in the nomadic lands to the south (1975: 164ff). Potts, on the other hands, suggests that the importation of domesticated Bactrians into the Middle East before the first millennium BC was solely for the purpose of breeding hybrids (2004).

A few qualifications of these ideas remain to be suggested. Whenever the Bactrian first entered the Middle East, either changed climatic conditions or changes in its own biology now seem to make it unsuited to the hotter and drier lands south of its Central Asian habitat. Meanwhile, many varieties of the dromedary, including the animal mentioned earlier as specially developed for conditions on the southern fringes of Central Asia, can cope with most conditions in which the Bactrian is at home, just as well as, if not better than the hybrid. Both the hybrid and the dromedary from which it is bred are raised far into Central Asia, among some at least of the Kazakhs, Kirghiz and Kalmyks (Marsh 1856: 30, 171f.; Leese 1927: 51f.; Menges 1935: 525-28; Roux 1959-60: 40-42). At the same time, though it seems to be the case that Arabs do not currently raise or use hybrids, it is by no means only Turks, nor indeed all Turks, that have done so. Examples of hybrid raisers mentioned above include Kurds in Anatolia and Syria, “Turkicized” Kurds in Azarbaijan, and Pashtuns in Afghan Turkistan. Turks who do not raise either hybrids or Bactrians include the Qashqa’i in southern Iran (P. Andrews, personal information) and the Akhal Teke Türkmen (König 1962: 44, 109).

Finally, in my experience, the main advantage of the hybrids over the purer species, to both nomadic and commercial users, is less its supposed versatility than its vastly greater size, strength and carrying capacity, its aesthetically pleasing appearance, and its correspondingly greater value, in both financial and ceremonial terms.

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¹ Tapper (1985). It was originally presented at the Colloquium “L’acclimatation turque dans l’Orient et la Méditerranée”, in Paris, 1975. For helpful comments on that occasion I am grateful to Xavier de Planhol, Daniel Balland, Louis Bazin, Tibor Halasi-Kun, Alfred Janata and Charles Kieffer.

² Robert Irwin’s recent entertaining and erudite *Camel* (2010) devotes less than a full paragraph to hybrids (pp. 28, 184-5), referring to Bulliet but apparently unaware of the considerable literature on the subject.

³ Some sources differentiate the two kinds of first-generation hybrid, stating that the offspring of (B) + (a) is inferior to that of (A) + (b) (Leese 1927: 133; Menges 1935: 526).

⁴ The ‘ethnographic present’ in this account refers to the mid-1960s, when I did fieldwork among the Shahsevan; see R. Tapper (1979, 1997).

⁵ See Tapper (1997: chapters 10 and 11); at various times since 1884 the frontier has been permeable in practice, though the raising and use of camels of any kind in Soviet Azarbaijan probably diminished faster than in Iran.

⁶ At the time (mid-1960s) there were roughly 20 tomans to the £, and 7.5 to the US dollar.

⁷ Some writers on Arabian camels claim they cannot copulate unassisted (e.g. Thesiger 1959: 136); but Dickson (1949: 411) and Murray (1935: 103) testify otherwise; see also Leese (1927: 95), Roux (1959-60: 49), and Olearius (1669:230). The sexual activities of camels appear to have long been the subject of fascinating but ill-informed speculations, and writers from Olearius to the present have delighted in disabusing their readers on this topic; see Irwin (2010: 26ff.).

⁸ The gestation period for camels as given in the literature varies from ten to over 13 months. Eleven to twelve months appears to be usual for the Arabian camel. According to Marsh (1856: 69) it is a month or so longer in a cold climate than in a hot. Goodwin (1962: 198) gives 385 days for the Bactrian and 315 for the dromedary. See also Roux (1959-60: 49), Leese (1927: 95), Murray (1935: 107), Dickson (1949: 413).

⁹ The sources state variously that the camel does not reach full maturity until somewhere between 10 and 17 years, and that it lives for 30 to 50, even up to 100 years. See Marsh (1856: 70), and *Encyclopedia Britannica*, 1910 and 1973 editions.

¹⁰ Burckhardt notes: “The camels of the Syrian Turkmans feed upon a kind of low bramble called in Turkish Kufan, which grows in abundance on the hills; in the evening they descend the mountains and come trotting towards the tents, where each animal receives a ball of paste, made of barley meal and water, weighing about one pound. The expenses of feeding these useful animals is

therefore reduced to the cost of a handful of barley per day” (1822: 637). See also Olearius (1669: 229) and Leese (1927: 133).

¹¹ These gifts of camels should properly be seen in the full context of prestations associated with marriage and circumcision, which of course there is no space to detail here; see Tapper (1979: 166-73).

¹² Personal information from Peter Andrews; but on the last point see the Shahsevan information above. De Planhol (personal information) states that Baluch in Khurasan breed hybrids; and that Bactrians (*buğur*) from the Shahsevan are sold by *buğurcu* nomads in Khurasan.

¹³ Caspani and Cagnacci give a photograph of a fine hybrid from Turkistan, offspring of a male Bactrian and a female dromedary (1951: 57. fig. 51, and p. 14).

¹⁴ The ‘ethnographic present’ here is 1968-72, when I did fieldwork in northern Afghanistan jointly with Nancy Tapper (now Lindisfarne); see N. Tapper (1991) and R. Tapper (1991 and forthcoming).

¹⁵ For the contrasting attitudes of Durrani and Shahsevan nomads towards their tents—and indeed towards nomadism—see R. Tapper (1997b).

¹⁶ Alfred Janata (personal communication) confirms that *māya* are widely used in Paktya for the transport of timber; they may be “stabilized hybrids” (de Planhol, pers. comm.), the existence of which is confirmed by Kieffer (pers. comm.), who was told by Pashtuns that they sought to create such a hybrid in order to maintain the qualities and capacities of the breed as well as to avoid the considerable expense of hiring a Bactrian stud to mate with their dromedaries. The biological status of these “stabilized hybrids” is not clear to me, nor is their relationship with the Iranian plateau dromedary identified by Bulliet (see above).

¹⁷ Balland (personal communication), confirming much of these data as applying also among Ghiljai in the South East of Afghanistan, adds that the “teeth” being counted are the incisors in the lower jaw (there are only two in the upper jaw), while the *niš* (“point”) refers to the fully developed and highly dangerous canines of the adult camel.