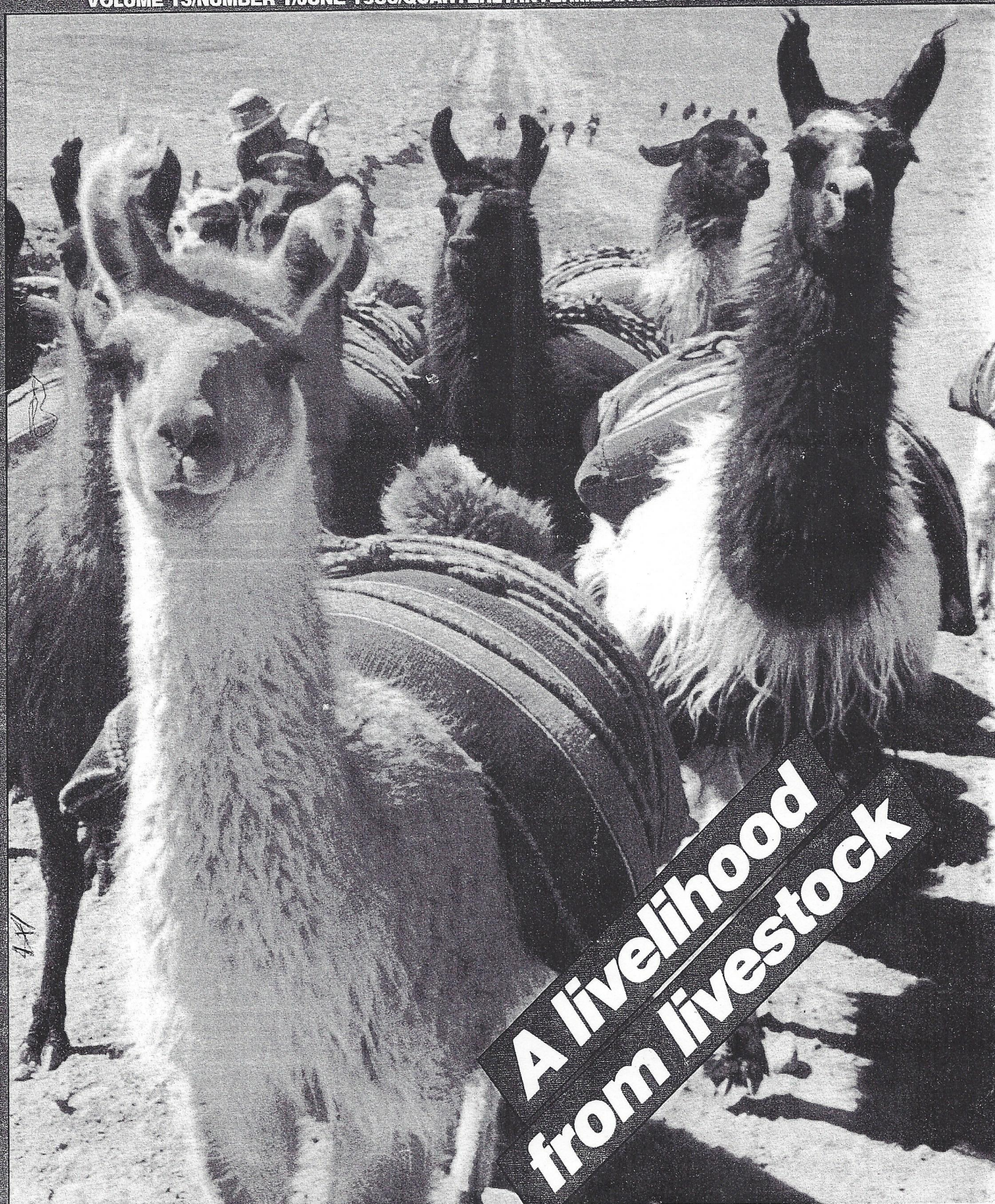


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**A livelihood
from livestock**

The camel in the Horn: facts against prejudice

Zeremariam Fré presents the new, more admiring interpretation of the camel. Instead of being looked down upon as a symbol of 'underdevelopment', as it still is, the camel should be promoted as an appropriate species of livestock in the dry areas of Africa and the Middle East. Its grazing habits make it a desirable creature, while its physiological adaptations to arid climates make it an impressive survivor.*

The *Camelus dromedarius*, the one-humped species, dominates the arid and semi-arid lowland environments of the Horn of Africa. According to ILCA, there are an estimated 12 million camels in Africa, most of which (10 million) are concentrated in the Horn. Somalia has 5.4 million camels, Sudan has 2.9 million, Ethiopia has 0.9 million (mainly in Eritrea), Kenya has 0.5 million and Djibouti has 0.4 million.

According to the FAO, an estimated 160,000 camels are slaughtered every year in Somalia, and 103,000 in Sudan, resulting in an overall decrease of 4 per cent. ILCA confirms that of the total killed, 60 per cent are slaughtered for local consumption, while the other 40 per cent are exported to Egypt, Libya, Saudi Arabia and the Gulf states. In Sudan, camel populations are on the increase slightly, but have decreased in Eritrea because of warfare over the last two decades.

The growth of camel herds is slow due to the twin factors of low fertility and high mortality rates for the young. On an average, calves are born every two years, and take seven years to reach their full size — about 300 to 600kg. The lactation period of the dam lasts about a year with a total milk yield of

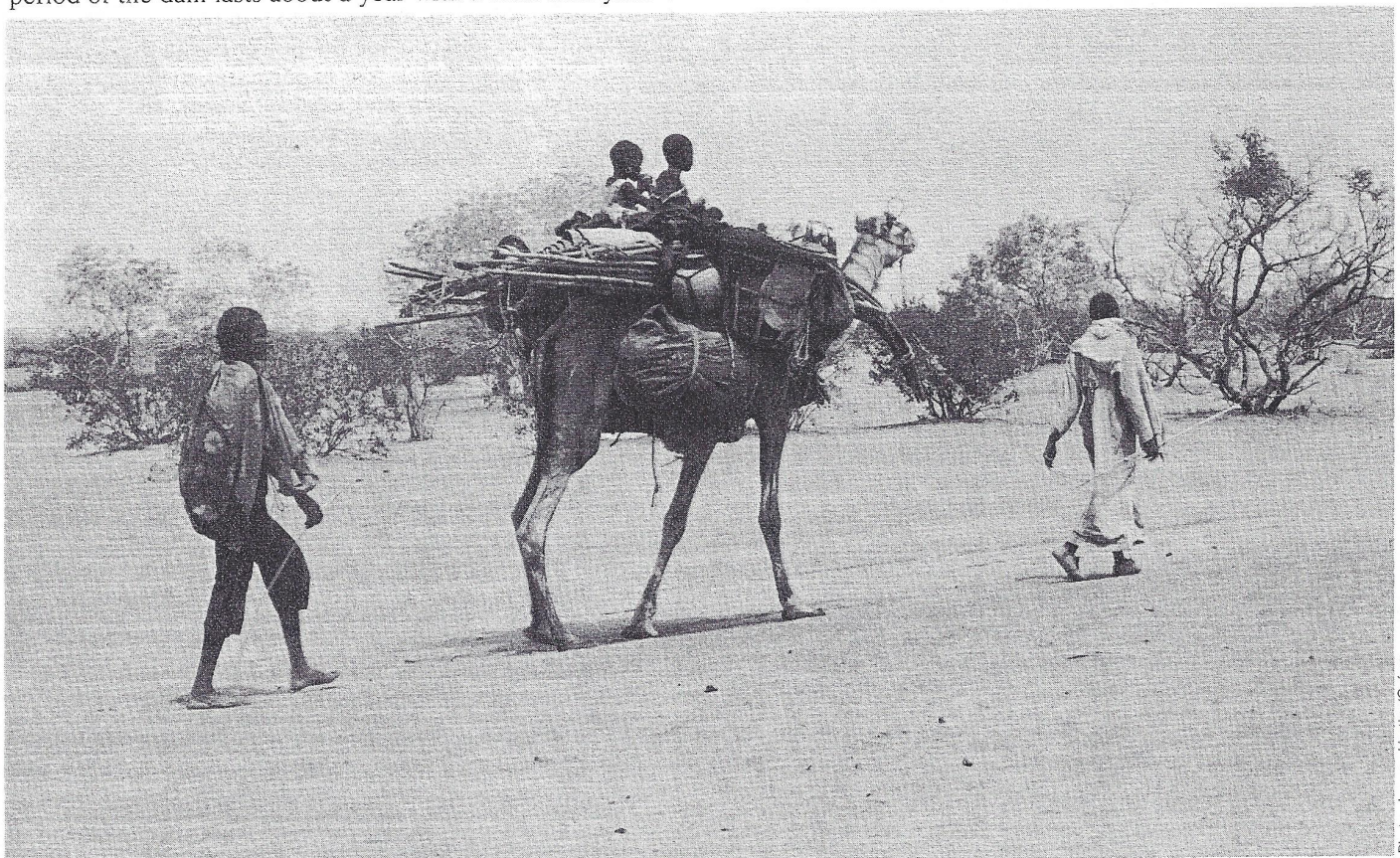
around 1,300 litres. It is only vaguely known to what degree pastoral households rely upon camel milk. It is likely to be a high reliance, however, as camel milk is a good source of both protein and vitamin C, and has more of each than cow's milk.

Location and use of camels

The camel's greatest advantage is its adaptation to arid environments which are too harsh for any other kind of livestock. It can graze or browse on a wide variety of plant species. It owes some of its success to special physiological adaptations. One of these is its fluctuating metabolic rate which allows survival on varying amounts of food. The other is its renal system which is very efficient, and famed for its ability to conserve water. This allows it to stay alive for several days with no water whatsoever. As insurance against thirst, it can drink up to a third of its body-weight when water is available.

A noted camel authority, Stiles, gives further credit to the camel when he argues that the spread of the desert can be stopped by the camel.¹ His research, conducted mainly in Kenya, has determined the following facts about camels:

- Camels produce more milk than cows.
- Camels have ecologically beneficial grazing habits. The camel tends to browse on tall bushes or trees, but leaves the lower leaves and vegetation untouched.
- Camels have a wider grazing range than any other type of livestock. The camel's range can be up to 80 kilometres. This allows for regeneration of plants, and rest for pastures.
- Camels are less demanding in terms of husbandry and care. There is less need for veterinary care, feed, water, etc.



A camel is better than a lorry.

Camels are also more disease-resistant.

- More people, who previously did not own camels, are acquiring them.

Stiles's findings are interesting because they partially expose the prejudices against the camel as a 'sign of under-development', and its owners as 'less-developed' groups, in the conventional sense.

The dry and desert areas of Eritrea and eastern Sudan have been occupied by camel-owning societies for centuries. The preferred type of camel is the one-humped dromedary, which is also common in Somalia and Kenya. In most of these areas, the mean annual rainfall is less than 350 millimetres. Most camels take their names from the groups who own them: Rashaidi, Bishari, etc. For all these groups the camel is a resource with many uses, providing food and milk, and can be a valuable commodity for exchange, a beast of burden and even a fast mode of personal transport.

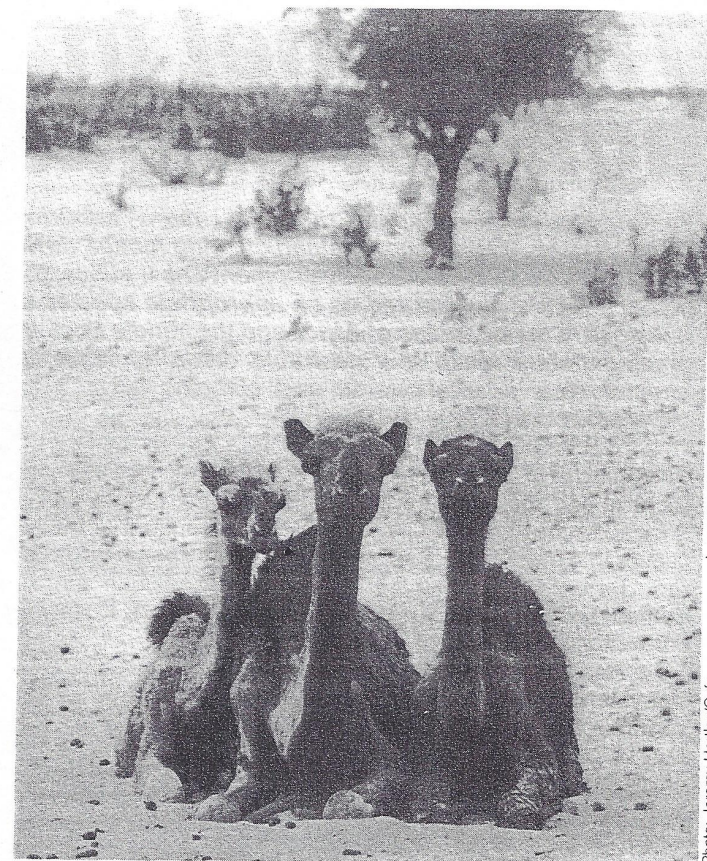
Pastoral specialization

Empirical data on the technique, economics and the role of camel pastoralism are scanty in Eritrea and eastern Sudan. Direct interviews with camel-owning people and reference to any literature that does exist is important. Unfortunately there is not enough research done on camels. What is known is that the camel is a very hardy animal which can digest flora ignored by other ruminants. It can also tolerate extreme dessication. During a study of livestock losses in Niger in 1973-4, it was discovered that while cattle were wiped out completely, and sheep and goat populations were halved, camels suffered only a 20 per cent loss.²

During the recent drought crisis in the Horn, the long-range nomads of the Bishari province in east Sudan have suffered less losses compared to the semi-sedentary, cattle-owning groups such as the Hadendowa and Shukrya. In Eritrea, some of the well-known pastoral groups have taken up commercial camel transport as a means of subsistence — and make a living from it.

Camels are classified into three types: riding, pack or transport and milking varieties. These groups require different methods of breeding and management.

For the Bedouins, the camel supports the social unit of the camp by providing transport, carrying domestic equipment and



By the end of the dry season, camels can be quite thin.

families, fetching water. Camels may also be exchanged for other necessities like salt, grain, sugar or clothing.

The use of the camel as a draught animal is also significant in the Sudan, where they are used to pull ploughs or irrigation equipment; they also provide the power to run the sesame oil presses. Sudanese camels are exported as meat all over the Arab world. In Eritrea and eastern Sudan, they are more commonly used as a pack animal. Used in this capacity, the camel is able to carry loads of between 150 and 300 kilograms.

Table 1: Breeds, owners and use (adapted from Mason & Maule, 1960)

REGION	CAMEL TYPE	OWNERS	BREED DESCRIPTION	USAGE	COMMENT
Eastern Sudan	Rashaida strain	Rashaidi	Short-legged, pink colour, Tokar and Kassala area	Pack camel	—
Eritrea	Zebedi or Bahr-al-Arab	Rashaidi	Small and graceful. North-east Eritrea and Sahel coastal areas	Pack camel	—
Eastern Sudan	Anafi	Shukria	Pale colour and small hump. North-west Kassala	Extreme form of riding.	Lighter and faster than the Bishari
Eritrea	Anafi Shukria	Beni-Amer	Classification according to colour. White, small head	Riding	—
Eastern Sudan	Bishari	Beja (Bishari)	Strong and sturdy, better conformation than Anafi	Riding	Best and finest breed of riding camel
Eritrea	Bishari	Beni-Amer	190-200cm withers height. Western lowlands	Mainly riding	—
Eritrea	(a) Grain (tawny)	Eastern lowland tribes (Ad Sheik Ad Temarian etc.)	Stout legs, smaller than Bishari	Transport and milk (5-6kg/daily)	—
	(b) Cayh (red)	Beni-Amer (Barca province)	Intermediate between Grain and Bishari	Transport	—
	(c) Danakil	Afar, south-east Eritrea. Danakil salt plain	Light tawny colour. Some also red	Milk and transport	The Danakil is one of the hottest places on earth

The Beni-Amer are pastoralists from the western lowlands of Eritrea who migrate to Tigray province of northern Ethiopia, from November to June. They own cattle as well as camels and make grazing arrangements with the local sedentary inhabitants. These arrangements are ideal for all as the camels provide necessary transport services for the locals who find that they make the markets possible and compare favourably with the use of lorries.

The use of camels for vital local transport in this part of the world has increased. A survey carried out by a Euro-Action extension team in the Qala-en-Nahal area of eastern Sudan produced the results found in Table 2. The survey was carried out in a predominantly refugee re-settlement project which included Sudanese and others. The survey was intended to find out the numbers and distribution of the camel population and its economic importance to the communities involved. The camels are used for local and commercial transport; they are also used as draught power to run the traditional sesame seed oil presses.

Not enough known as yet

Camel-drivers get from their animals grain, condiments, hardware items, domestic fuel and textiles. Their livelihood relies on both camel labour and the by-products it is a source of. The nomadic nature of the camel and its owner means that their migrations can and do follow both the local market demands for transport and power, and the availability of forage. In drought conditions, around every twenty years, the camel and its owners can enlarge their usual migration areas, so they will both survive and not exacerbate the effects of the drought by

Table 2. Transportation details 1982-3

Village	1982-3	Sacks hauled by		Sacks hauled	
	Crop yield in sacks	Camels	Trucks	EAE*	p/camel
Salmine	21,983	5,265	16,453.5	219	65
Umbrush	9,555	9,555	—	—	530
Umsagata	13,870	4,022	9,709	138	59
Umzurzur	10,653	7,990	2,663	—	199
Adingrar	12,477	8,734	3,119	625	485
Dahema	14,157	13,308	707	141	831
Sudanese villages	22,867	2,286	20,380	—	55
Totals	105,517	51,160	53,231.5	1123	—

(*Euro-action extension team) MAY 1984

eating young plants as they begin to regenerate.

The camel has had a bad reputation for far too long. It is about time that scientists and social anthropologists studied the camel and the various pastoral systems based upon it. These systems are highly specialized forms of animal production which are entirely self-contained and rely on indigenous production skills and concepts. The camel is a valuable animal which should be encouraged in the areas for which nature has designed it so well. ●

References

1. Stiles, D., 'Stopping the desert's spread with a camel', *The Ecologist*, Vol.12, No.1, 1984, Penwell Ltd, Cornwall, UK.
2. Yagil, Ceres, July-August, FAO, 1982.

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In a Sahelian market, the camel is the predominant form of livestock traded.