

The leopard and the lion

An exploration of Nostratic and Bantu lexical continuity in the light of Kammerzell's hypothesis

by Wim van Binsbergen

*Introducing Kammerzell's ubiquitous roots *pr/*prd and *lw, and sketching our itinerary in the present argument*

In a brilliant recent analysis, Kammerzell¹ sets out to establish the etymology of the Ancient Egyptian divine name of Mafdet, a feline goddess attested from remotest times: her emblem appears on the fifth-dynasty Palermo stone² where it refers to a first-dynasty context. Rejecting a number of alternatives that have the names of splendid Egyptologists associated with them, Kammerzell arrives at an etymology in terms of a root *pr/*prd, which primarily means 'to rip, to tear', and (since a feline rips with a claw containing four nails), 'to [give one a taste of the] four'; hence the numeral 'four' (4) attaches to this root, and the feline becomes the 'four-animal'.

This surprising identification can be developed further, for it is my impression that the numerical association has gradually been dissociated from the ripping movement, and has instead imposed itself on the perception of the pattern of the leopard skin in Ancient Egypt. Both the pattern and the colour of the leopard skin are highly variable, but the basic structure is a light fond, on which many irregular dark rings are found with a reddish-brown centre. There is not one general convention for rendering this pattern in Egyptian art through the ages, but one may notice a tendency for the rings and the centre to be rendered by dots. What would be more natural, in rendering a four-animal, than to produce a pattern of four black dots for each ring, or of three black dots around a central red one? Although no representation follows this tendency entirely consistently, it is noticeable in a considerable number of representations (e.g. Figure 1).

¹ Kammerzell 1994.

² Cf. Seidlmayer 1998: 24, third double register from top, second cell from the left.

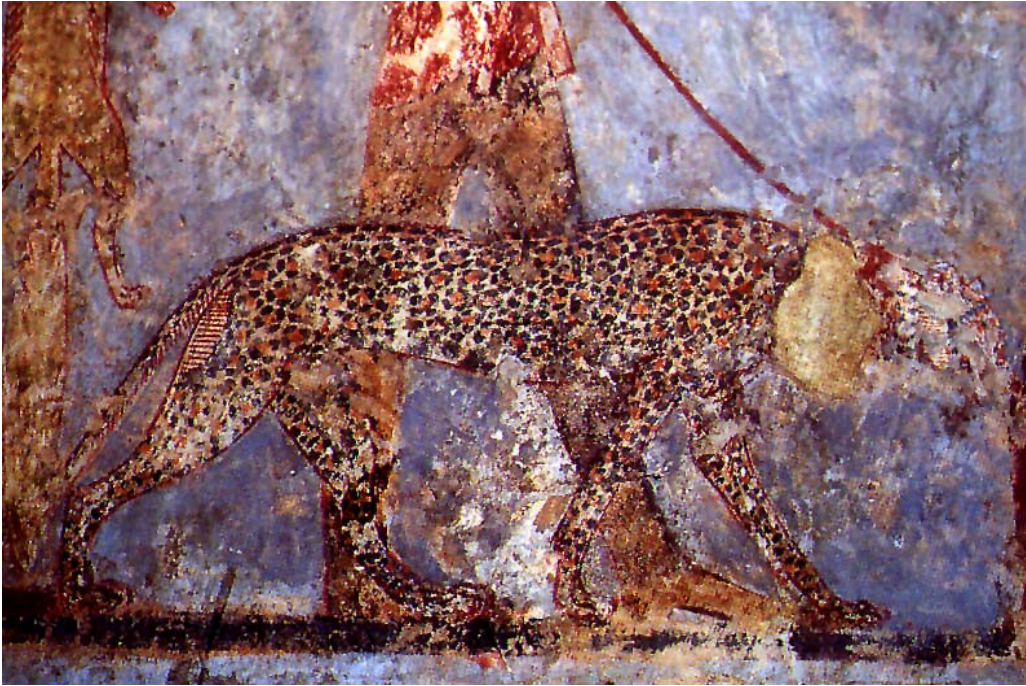


Figure 1. A leopard as Nubian tribute, eighteenth dynasty
detail of wall painting from tomb-chapel of Rekhmira^c, no. 100, Thebes¹; Houlihan 1996: 101 pl. XVI.

Incidentally, the tendency to acknowledge iconographically the leopard as a ‘four’ animal can perhaps already be spotted in Çatal Hüyük. For instance, Kammerzell (1994: 56) shows from this site an image with two leopards; without himself spotting the ‘four’ tendency in this representation. These leopards’ spots consist of irregular dark disks in which, in a lighter colour, there is an irregular cross with spokes widening from the centre. Together the leopards display nearly a hundred such disks, on more than half of which the crosses have four spokes, about a quarter have five spokes, and the remainder have three, six, or an uncertain number. Throughout the Ancient Near East, from Egypt to Mesopotamia, the iconography of stars (and gods) is very similar to such multi-spoked crosses (Labat 1988; de Mecquenem 1949).



Figure 2. Two leopards from Çatal Hüyük ; Mellaart 1966.

Kammerzell’s etymological explorations reach much further. Radically departing from the Romantic imagery of the tree, with stem and branches, as the representation of linguistic relationships underlying most early work in Indo-European linguistics, he comes to the amazing conclusion that throughout Afro-Asiatic (which includes Ancient Egyptian, Semitic

– for example Arabic, Hebrew, Akkadian, Phoenician, Ugaritic – Cushitic, Berber, Chadian, and Omotic) and Indo-European languages the ‘leopard’ tends to be called by the root **pr* or **prd*, and ‘lion’ by the root:

*rw/lw-/*LB'/*leu [add little o under u of leu]*

(the English *leopard*, composed of a combination of both words, is in itself an excellent illustration). It proves impossible to decide whether there has been any borrowing here from Afro-Asiatic to Indo-European, or the other way around. The wide distribution of these animal species across the Old World makes the case very different from that of domesticated animals and plants, where long-ranging etymological connections have simply followed the diffusion of Neolithic food-producing skills; for example, cattle are called by words deriving from the same root **guou* in Central Africa, Western Europe, India, and China.

Kammerzell does not attempt to *explain* the continuities that he finds throughout the Afro-Asiatic and the Indo-European material. He does not seriously consider the possibility of a third, more comprehensive, language family underlying the language families of Afro-Asiatic and Indo-European, because that would take him back to the dendric model just left behind. Yet, as a result of research over the past two decades, such a super-family has now been widely recognised under the name of Nostratic,³ to bring out the common linguistic material in huge language groups comprising many of the Old World’s languages and some of the New World’s: Indo-European, Kartvelian, Uralic-Yukaghir, Elamo-Dravidian, Altaic, Sumerian, Chukchi-Kamchatkan, Gilyak, Eskimo-Aleut and Etruscan. I shall argue below that extension to the Nostratic level would have enhanced the relevance of Kammerzell’s argument for our present purpose.

In the present argument I will try to make sense of the widespread pattern of distribution that Kammerzell identified for us. I will do so at a number of levels, some of them linguistic, others in the realm of intercultural comparison across time and space. The intercultural perspective will in the first place suggest an answer, derived from Lévi-Straussian structural anthropology, to the following two questions:

1. Why should such a widespread lexical complex consist of names of animal species?
and
2. Why should these names be paired?

In ways which I have elaborated elsewhere⁴ and cannot discuss in the present linguistic context, such widespread and constant nomenclature of animal species suggests the existence of a widely distributed system of animal symbolism as a central part of a cosmology informing systems of meaning and social organisation in many parts of the Old World and over a very long period (several millennia, since the beginning of the Neolithic). The wide distribution of this cosmology may be gathered from Figure 1, which presents a number of attestations of leopard symbolism throughout the Old World from very different periods.

³ Bomhard 1984; Bomhard & Kerns 1994.

⁴ van Binsbergen, in press, ch. 8.

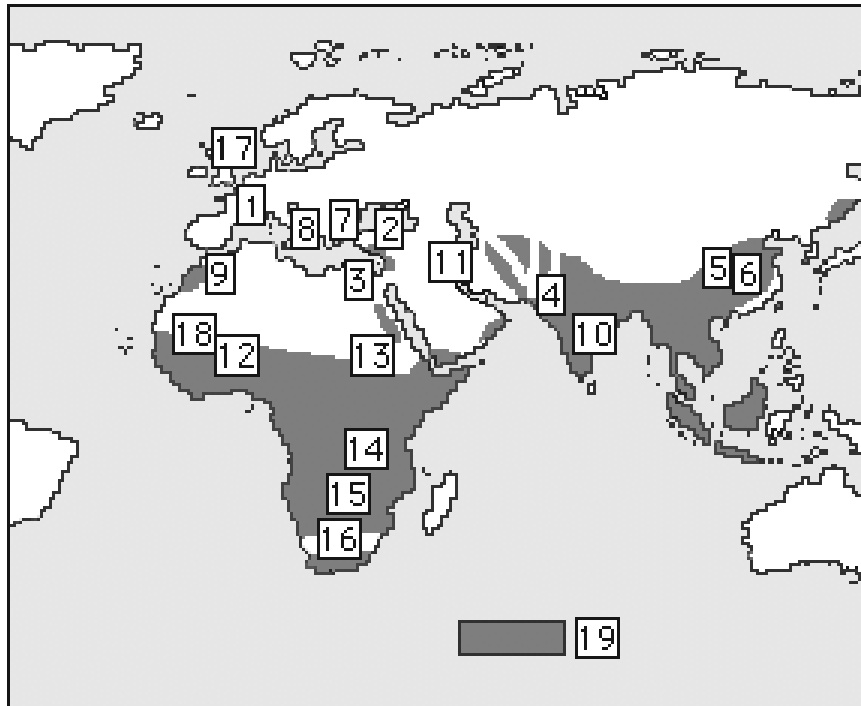


Figure 3. The geographical distribution of the leopard today, and historical leopard-skin references.

1. Leopard skin allegedly worn by Mousterian man at Hortus, 60,000 BC
2. Great Mother goddess depicted giving birth supported by two leopards, and other leopard representations at Çatal Hüyük, 8000 BP
3. Ancient Egypt second millennium BCE: Sem priest wears leopard skin in the Opening-of-the-Mouth ceremony; leopard skin in *imiut* moveable shrine; leopard skin major tribute from sub-Saharan Africa; leopard as the 'four-animal'; ubiquitous **pr/*prd* root for leopard in Afro-Asiatic and Indo-European languages first attested
4. Leopard skin decoration on mantle of priest-king in Mohendjo-Daro, second millennium BCE
5. Fu Hsi, Chinese culture hero credited with the invention of the *eight kuā* (eight trigrams) supposed to have worn a leopard skin, and depicted thus in the thirteenth century CE
6. Leopard skin with lunar and imperial connotations in Chinese classical culture
- 7, 8. Cybele, Dionysus, Eros, Orpheus, and various Greek and Trojan heroes associated with leopard skin, Archaic and Classic Greece
9. North-west African horsemen use leopard skins as saddle, Hellenistic times
10. Great Mother goddess (under the manifestation of Kali) associated with leopard and leopard skin, India, 1st-2nd millennium CE
11. Sufis wearing leopard skins
12. West and Central African secret societies and totems featuring the leopard
13. Nilotic leopard-skin earth priests
14. East and South Central African kings wearing the leopard skin
15. Leopard skin in the Mwali/*sangoma* cult
16. Leopard skin as academic dress, Witwatersrand, South Africa
17. Leopard heraldic animal of England
18. West African *yeeli* ('griots', i.e. bards/heralds) wearing leopard skins
19. Approximate distribution of the panther/leopard (*Panthera pardus*) in modern times; sources: Garman 1997; Leopard Fact Sheet n.d.

Note. Up to c. 10,000 BP the species also occurred in Europe; up to 5,000 BP also in Egypt and elsewhere in North Africa; up to the nineteenth century CE throughout South Africa

Besides Kammerzell's distributional data, the next step in my analysis introduces the mythological complex of the Luwe divine figure, which the Swedish comparative religionist von Sicard⁵ has attested in numerous African contexts and elsewhere in the Old World. My

⁵ von Sicard 1968-69.

equation of Luwe's name with the **lw* component in Kammerzell's linguistic pair again does two things:

1. it makes us look for a **pr/*prd* component in the Luwe complex; this we find in the divine figure of Mwali, paired to Luwe in various ways); and
2. it suggests a massive sub-Saharan African extension of the distribution of Kammerzell's paired roots.

A extensive analysis of the names for leopard and lion in more than two hundred Niger-Congo, more specifically Bantu, languages is then undertaken. It does in fact confirm

1. a considerable presence of Kammerzell's roots also in the sub-Saharan linguistic context, as well as
2. a considerable continuity of the semantics especially of the **pr/*prd* root (ubiquitously in terms of 'scatter', 'dappled') and finally
3. the concomitant wide distribution of the 'ancient cosmology of the leopard and the lion' throughout the African continent in the last four or five millennia.

However, in the face of the extensive Nostratic continuity of Kammerzell's roots, the African evidence is not enough to conclude to a primarily sub-Saharan African origin of these roots. Instead, I prefer to suggest that the complex originates in South West Asia / North East Asia not more than ten millennia BP, in the early Neolithic.

Why names of animal species, and why a pair of such names?

Since the early twentieth century, with the work of Durkheim on the *Forms élémentaires de la vie religieuse*,⁶ a debate has been going on within cultural anthropology concerning the principles underlying the selection of specific natural givens (e.g. animal species) to become religious symbols: was their selection entirely arbitrary (as Durkheim maintained) or was it inspired by ecological and economic interest (as other protagonists in the debate, e.g. Malinowski and Worsley maintained).⁷ As his highly original contribution to this debate, Lévi-Strauss formulated a selection principle for natural symbols that was neither economic nor totally arbitrary: *they did not have to be good to eat, as long as they were good food for thought*.⁸ When Lévi-Strauss largely turned away from kinship studies and for decades applied and refined his concepts and methods in the analysis of myths and symbolism, he shaped a toolkit that allows us to pinpoint the underlying formal structure of a system featuring natural symbols, and to formulate that structure at such a level of abstraction, and with such precision, that far-reaching comparisons may be made between such systems, while underneath their dazzling variety we may begin to detect converging underlying deep structures – not by literary, psychoanalytical or intuitive methods, but with a strategy of identification and abstraction not dissimilar, in its rationality, transparency and intersubjectivity, to the Periodic System used by modern chemists. For Lévi-Strauss (and in an argument directly indebted to de Saussure's and Trubetzkoy's structuralist linguistics of

⁶ Durkheim 1912.

⁷ Malinowski 1954; Worsley 1956, 1968.

⁸ Lévi-Strauss 1962a, 1962b.

the first half of the twentieth century CE), a natural symbol could never articulate its meaning in isolation, but only by offsetting its *distinctive features* against those of another such symbol, within a specified context that systematically defines the issue. Lévi-Strauss taught anthropologists to recognise that speaking about pairs of natural objects in juxtaposition is an effective discourse for the articulation of social, political and ideological relationships. It constitutes a world view and a system of social organisation.

Of course, binary oppositions as evoked here are crude and deceptive instruments of human thought, inviting a Derridean deconstruction that will show that they imply their own opposite, so that our intellectual gain lies not in the opposition, but in its deferment, its *différance*. But if modern specialist philosophical thought for the past few decades has thrived on the attempt to surpass structuralism, as a key to the initial description and analysis of non-specialist, non-academic thought, of ‘untamed thinking’, structuralism is still unsurpassed, and a vital instrument of intercultural description and analysis.

With these structural anthropological insights in mind, we can begin to make sense of two sets of data: Kammerzell’s ubiquitous pair of animal names, and von Sicard’s extensive study of the Luwe divine figure.

Kammerzell’s has presented us with the well-documented finding that, ever since Neolithic times, both in Afro-Asiatic and in Indo-European languages (in other words, throughout a stretch of the Old World ranging from the North Cape to West Africa and India, and from Mauritania to the deserts west of China where Tocharian was spoken), the root **pr/*prd* has been in use to denote ‘leopard’. But not only that: the same extension in space and time applies to the root **lw* for ‘lion’. Apart from domestic animals which form an entirely different case, this spectacular distributional phenomenon is peculiar to the two roots **pr/*prd* and **lw*. They form a unique pair. The kind of pair that our digression into Lévi-Straussian structuralism made us expect to find.

The uniqueness of the pair **pr/*prd* and **lw* will be realised when we inspect the common repertoire of Afro-Asiatic, Indo-European and in general Nostratic languages. In this connection, I have already mentioned

- ‘hawk, falcon’,

the basic form of whose name (**hur-/*hor-*) extends even far beyond Proto-Afro-Asiatic (PAA) and Proto-Indo-European (PIE) to encompass Proto-Nostratic. The only other cases cited by Bomhard and Kerns⁹ for Proto-Nostratic as a whole are:

- ‘animal’ (= any animal in general);
- ‘bee’;
- ‘hoofed animal’;
- ‘hoofed, cud-chewing animal’;
- ‘insect, worm’;
- ‘partridge’;
- ‘wild animal, wild beast’.¹⁰

⁹ Bomhard & Kerns 1994.

¹⁰ Bomhard & Kerns 1994: 865ff. ‘animal = any animal in general’ (**ʔar-/*ʔər-*, no. 437); [~~deleted dot under ‘question mark’~~] ‘bee’ (**bay-/bəy-*, **k[h]unʷ-/*k[h]onʷ-*, nos. 27, 251); ‘hoofed animal’ (**k[h]ab-/*k[h]əb*, no. 253); ‘hoofed, cud-chewing animal’ (*ʔil-/*ʔel-*, no. 452); ‘insect, worm, maggot’ (**kʷ[h]ur-*

With the exception of ‘falcon, hawk’, none of these names refers to one specific species or cluster of closely related species. One might suppose that the corresponding list for PAA and PIE together, although implied in the above list, would be longer since these language families are at least geographically closer than some of the other members of the Nostratic super-family, but Bomhard’s¹¹ extensive list of cognates between the reconstructed proto-forms of these two language families yields only two more items:

- ‘to fly, bird’; and
- ‘a kind of bird, eagle’.¹²

That is all. Obviously it is very rare for animal names to extend over great stretches of space and time, unless they are supported by the cultural history of domestication; and only in the case of **pr/*prd* and **lw* does such extension occur pairwise.

Meanwhile it is a sobering fact – indicative of the fact that Nostratic studies are still in their infancy – that Bomhard,¹³ claiming to list all plausible PAA/PIE cognates, does not list Kammerzell’s roots **pr/*prd* and **lw*, although the latter’s account of their distribution in Afro-Asiatic and Indo-European is exhaustive and convincing.

The second set of evidence consists of the symbolic complex centring on the divine figure called Luwe, as extensively analysed by von Sicard.¹⁴

The Luwe complex and the limitations of von Sicard’s work

The name Luwe is widely attested, throughout Africa south of the Sahara, as the designation of a primordial hunting/herding/atmospheric/blacksmithing god with very specific characteristics and attributes (a dwarfish shape, often only a left side or a right side to his body, an axe or club as weapon, Master of Animals of the wilds, herder also of immense herds of cattle, etc.), and with extensive ramifications into the rest of the Old World. Besides Luwe, other name variants attach to the character of this old god, for example Runda, Kube, Sumba, Gurub, Karumbi, Mutanga, Dara, Gale, Nape/Nyambe, etc.

We should be careful not to put ourselves completely at the mercy of von Sicard’s

*/*k^w[h]or-*, no. 332); ‘partridge = plump-bodied game bird’, **k’ak’-*, no. 291); ‘wild animal, wild beast’ (**Guw-ir/*Gow-ir-*, no. 236).

¹¹ Bomhard 1984.

¹² Bomhard 1984: ‘to fly, bird’ (PAA **^εaw-/*^εaw-*, PIE **^εh^εw-i*, p. 265), and ‘a kind of bird, eagle’ (PAA **^εar-/*^εar-*, PIE **^εγ^εr-/*^εγ^εr-*, p. 267). We have already noted that the Ancient Egyptian word for ‘falcon, hawk’, and hence the name of the major god Horus that attaches to every king, derives from an identical Proto-Nostratic root. The latter being one of the very few common Nostratic animal names, suggests that the Horus cult in Ancient Egypt from earliest dynastic times reflects a far more general Old World feature. Is it by sheer coincidence that the Zambian Nkoya put two primordial birds, i.e. hawk and eagle, identified with God and her child, at the beginning of time? Or (given the fact that the word for ‘partridge’ is also one of the very few Proto-Nostratic animal names) that the myth of the Tunisian local saint Sidi Mhammad speaks of partridges that alighted on the sleeping saints when he was supposed to herd his master’s cattle – after which these birds were forever sacred to him? Or that the myth of origin of the North African ^CArfāwi clan serves to explain that clan’s shibboleth:

‘the [partridge’s] head is burned in the fire’?

Cf. van Binsbergen 1992b, and forthcoming (c).

¹³ Bomhard 1984.

¹⁴ Von Sicard 1968-1969.

approach, however persuasive his ideas are, and however much they appear to be corroborated from a recent and unsuspected direction – the work of the Egyptologist and linguist Kammerzell. In circles of Zimbabwe scholars, von Sicard has long been discarded as a hopeless arch-diffusionist whose disbelief in any linguistic, cultural and ethnic boundaries made him claim the most fantastic intercontinental continuities, such as suspecting a localising transformation of the Old Testament’s Arch of the Covenant to underlie the drum symbolism of East and South Central African kings.¹⁵ However, it is difficult to determine to what extent such dismissal has been merely paradigmatic, in other words, inspired by the general rejection of diffusionism in the anthropology of the second half of the twentieth century, and how much of it really addressed genuine factual errors on von Sicard’s part. The same anthropologists who reject his linguistic and mythological arguments may be suspected of fighting a somewhat spurious battle of rival disciplines with him (von Sicard was a comparative religionist and theologian by training). Moreover, these anthropologists probably derive localising (even essentialising) blinkers from their own fieldwork-based anthropological habitus, and (like most social anthropologists in the second half of the twentieth century) tend to lack comparative and theoretical linguistic knowledge – they would seldom be competent to prove von Sicard wrong through a detailed scholarly argument. But even so, we must admit that von Sicard’s comparative religious and mythological knowledge and method are generally of better quality than his linguistics.¹⁶ The latter frequently adduces far-fetched etymologies without stopping to spell out the correspondence rules (of *systematic*, and both empirically and theoretically underpinned, phonetic and morphological change over time) on which such etymologies are supposed to be based; and without considering alternative and often more established etymologies. Thus, from von Sicard’s perspective the Hebrew *ari*, ‘lion’, would appear to be a cognate of the divine name Luwe, and if Ari turns out to be an alias for the Northern European god Odin, that (among other indications) would implicate the latter in the transcontinental Luwe mythical complex. Implicitly there is an appeal here to Kammerzell’s root **lw*,¹⁷ but a more established etymology for the Hebrew word *ari* is to see it as an application of the root **ʔar-/*ʔar[delete dote under question mark]*, which in Afro-Asiatic and in fact throughout the Nostratic realm stands for ‘animal’.¹⁸ This one example may serve to indicate that von Sicard’s work is methodologically suspect and essentially obsolete. It can only serve to be quarried for inspiring hypotheses, which must then subsequently be substantiated by more recent and more methodological scholarship. The following discussion must be seen in the light of these severe reservations.

Von Sicard explored this mythical complex in the mid-1960s, when Africans were throwing off the yoke of colonialism, American Blacks were only gaining vocality, Afrocentrism was a little-known minority option, Africa was thought to have been totally aloof from global cultural history or, at best, to have been merely a passive receiver. This

¹⁵ Von Sicard 1952.

¹⁶ I am grateful to T. Schadeberg for pointing this out to me in the context of African linguistics. Similar shortcomings often (despite a number of very convincing hits) attend Bernal’s proposed Afro-Asiatic etymologies of Ancient Greek words, especially the Athena/Neith etymology, as I argued in: van Binsbergen 1997b.

¹⁷ It would certainly be an irony of modern history if an alias of the northern deity that was atavistically venerated by the German Nazis, would become understandable, after all, in the light of Hebrew/Jewish language use. Whatever von Sicard’s surname suggests, he was Swedish, not German.

¹⁸ Bomhard 1984: 253; Bomhard & Kerns 1994: no. 437.

was particularly expressed in the Hamitic thesis, which was the accepted wisdom in the first half of the twentieth century: major processes of cultural, productive and political change in African pre- and proto-history were attributed to the influx of culturally and somatically distinct ‘Hamites’ from West Asia.¹⁹ The earliest history of humankind was then still largely projected onto Asia rather than onto Africa, on the basis of such early palaeoanthropological finds as Java Man and Peking Man; the Southern African Australopithecus, roughly a contemporary of these two Asian finds, had been known for decades, but the more recent East African finds that would put the history of humankind back by several million years, and firmly establish Africa to be humankind’s cradle, were still to make their greatest impact. Therefore, although von Sicard was a diffusionist who – in a very liberating and historically conscious manner, ahead of his time – saw Africa deeply, and for millennia, engaged in worldwide linguistic and cultural processes, he obviously remained on the safe side by stressing the likelihood that the Luwe complex diffused from South-west Asia into Africa. However, its great antiquity, ubiquity, and (as splendidly documented by von Sicard – we cannot do justice to his wealth of data in the scope of this chapter) its variation, *within Africa*, might just as well suggest the reverse direction, from Africa into Eurasia. Animal skins, the quality of being Master of Animals, a dwarf-like build, an abundance of cattle, the use of the club as a weapon – these traits show significant parallels with mythological characters from the Ancient Near East and Graeco-Roman Antiquity possessing likely African connotations: Bes, Heracles and Gilgamesh, all of them donning a *lion* skin and in addition displaying some of Luwe’s attributes. The word *luwe* may have meant both the god and his most obvious manifestation or companion, the lion (Kammerzell’s **lw* root) with only the species designation (i.e. **lw* as ubiquitous name of *Panthera leo*) clearly surviving, with much attending heraldic and literary symbolism, whereas the Luwe character himself is much more difficult to make out now in Eurasia. Let us suspend judgement and keep – at least, in this phase of our argument – both possibilities (from Africa, and into Africa) open, where Luwe’s origin is concerned.

As we have seen, in order to be ‘good for thinking’ about the world, society, and the self, a symbol cannot very well stand on its own but is preferably juxtaposed to at least one other. Kammerzell’s root **lw* is accompanied by the root **pr/*prd*. But where, in the Luwe cosmology, is the counterpart of the **lw* root? It stands to reason that, in the Luwe cosmology, the leopard should be the counterpart of the lion.

In his identification of occurrences of the Luwe complex, von Sicard allowed himself to be guided by typological considerations concerning beliefs, attributes, iconography, and not primarily by lexical criteria. As a result, in a continent with such enormous linguistic diversity, the Luwe character and his companion turn out to occur under a large number of different names, which, on the basis of *largely unspecified* linguistic criteria, von Sicard classified in seven groups. Group 6 is the most interesting for our purpose. It contains the names:

Gale, Ngali; Yangare; Mungala; Mungalo; Mwari, Mwale, Munyari; Njala-Gobe; Nyalic; Amala; Agar; Gara; Geli, Angeli; Eri; Ari; Gayere; Wa-Mwelu; Kyamweru; Umveli Ngqangi; Mwili; Mvidi; Mrile.

The provenances of these names (cf. Figure 4) are scattered over the entire African continent, from Northern Nigeria to Zululand, with a certain degree of clustering on East Central Africa, specifically Tanzania.

¹⁹ Cf. Seligman 1913; Sanders 1969; Zachernuk 1994.

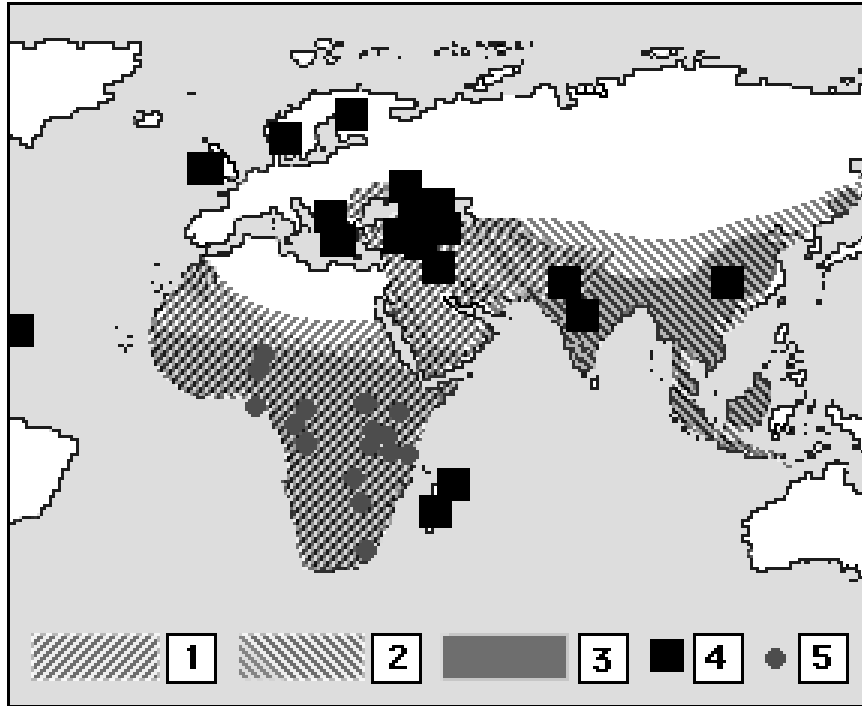


Figure 4. The geographical distribution of the lion and the leopard species, and von Sicard's attestations of the *Luwe* complex outside Africa.

1. Geographical distribution of the lion, c. 5000 BP
2. Geographical distribution of the leopard, c. 5000 BP
3. Geographical distribution of the leopard today
4. Attestations of the *Luwe* complex outside Africa
5. Geographical location of attestations of members of von Sicard's Group 6: *Mwari*, etc.

Von Sicard extensively presents as many as 65 attestations of the *Luwe* complex in sub-Saharan Africa alone.

Mwali (or in its Shona form Mwari), the name of the High God venerated throughout Southern Africa, turns out to be part of the *Luwe* complex. Mwali may display all of *Luwe*'s traits, but more important is that Mwali frequently occurs as *Luwe*'s companion, although the nature of the mythical partnership may vary from that of lover, priest, mountain supporting the partner's holy fire, or opponent in a magical contest.

Favouring a Eurasian origin for *Luwe* and thus implicitly yielding to the Hamitic thesis, von Sicard doubts the possibility of *Luwe* and Mwari being an original pair, some sort of Adam and Eve, on African soil.²⁰ If *Luwe* and Mwari are found to be united in the more recent African material, to form a Lévi-Straussian pair hinging on binary opposition, this probably means – he argues – that they travelled very different individual trajectories through Old World cultural history, and accidentally ended up together.²¹ Von Sicard

²⁰ Ironically, we even encounter the biblical Adam as a transformation of a name in Group 7, featuring names like Zabi, Nyambe, etc.; von Sicard 1968-1969: 704. The discussion on 'African Eve' is of course a very different matter. It was only started in the late 1980s, on genetic grounds. Meanwhile our archaeological evidence on early somatically modern man in Africa has greatly increased; cf. Shreeve 1996; Anati 1999.

²¹ Von Sicard 1968-1969: 703.

surmises that Group 6²² (epitomised by him in the root *gal* – ‘young woman’) has an origin in North-east Africa, in the Afro-Asiatic language region:

‘But in that case the origins of the *gal* belief would have to be sought in northern Africa, from where it spread across the [African – WvB] continent along various route and at different times (...); already very early on it came into contact with the *Luwe* belief of the Eur-African hunters so that the two characters were subsequently to be linked in very different ways. Much later also the dynamics of the Palaeo-Mediterranean culture (which some researchers²³ date back as far as the middle of the second millennium BCE) will have contributed to this intertwining.

How far the correspondences between *Luwe* and *Gale/Mwari* in fact reach may finally be suggested by a board game that is connected with the cult of the dead, and that we have got to know, *inter alia*, under the name of *fuwa* (*fuva*). The same game occurs in the Western Sudanic region under the name of *ware*, *wale* and *mwali* and in Angola as *wela*.²⁴

*The Luwe complex as throwing light on Kammerzell’s roots *lw and *pr/prd*

While above we had reasons to equate *Luwe* with Kammerzell’s ubiquitous root **lw*, we may now go one step further and equate *Mwali*, and the latter’s typological equivalents, with the equally ubiquitous **pr/*prd* root. And we have learned to suspect, under the apparently modest disguise of a young maiden, the features of major goddesses, associated with the leopard, heaven, fate, spinning, spiders, and wielding the spindle-whorl as their main attribute.²⁵

Why should Kammerzell’s paired roots be so widespread and persistent? Probably because the concepts to which they refer are persuasively central to a fundamental and widespread world view. *Luwe* and *Mwali*, **lw* and **pr/*prd*, conjure up a cosmology in which the structure of the entire world is summed up and can be brought to life in a way that

²² Von Sicard 1968-1969: 702. All the names listed for Group 6 have been attested in sub-Saharan Africa with the exception of *Ari*. The latter is, as we have already noted, an alias of the Northern European *Odin*, who also appears as *Rinda*, one of the names under which *Luwe* appears in Africa in von Sicard’s Group 1b.

²³ Kammerzell’s linguistic analyses, and my own reconstructions of the Palaeo-Levantine element in the earliest Egyptian state formation, suggest a much earlier date: the fourth millennium BCE at the latest.

²⁴ Original:

‘Dann aber würden auch die Anfänge des *gal*-Glaubens im nördlichen Afrika zu suchen sein, von wo aus sich dieser auf verschiedenen Wegen und zu verschiedenen Zeiten über den [afrikanischen – WvB] Kontinent verbreitete (...), wobei er schon sehr früh mit dem *Luwe*-Glauben der eurafrikanischen Jäger in Berührung kam und die beiden Gestalten in der Folge auf sehr verschiedene Weise miteinander verbunden wurden. Viel später haben sicher auch Wellenschläge der altmediterranen Kultur, die von einigen Forschern bis in die Mitte des zweiten vorchristlichen Jahrtausends zurückdatiert wird, zu dieser Verflechtung beigetragen.

Wie weit die Entsprechungen zwischen *Luwe* und *Gale/Mwari* gehen, möge zuletzt ein Hinweis auf das mit dem Totenkult verbundene Brettspiel zeigen, das wir u. a. als *fuwa* (*fuva*) kennengelernt haben. Dasselbe Spiel kommt im Westsudan als *ware*, *wale* und *mwali* und in Angola als *wela* vor.’ (Von Sicard 1968-1969: 703, my translation, with original reference to Baumann 1956: 120; Bonnefoux 1941: 179).

The literature on this board game is very extensive. Cf. van Binsbergen 1996a, 1996b, 1997c, and references cited there. Glimpses of the ancient cosmology of complementarity as it is mediated through female puberty ceremonies in South Central Africa may be gleaned from Rasing 2001.

²⁵ Probably the Chinese lunar mansion *niu* as discussed above manifests an eastern extension of this complex, as does the famous Chinese story of the cow-herd (*Altair*) and the spinning maid (*Vega*); Williams 1974: 373f.

allows people subscribing to that cosmology effective access to the life force that is contained both in the non-human world around them, and in their own bodies and minds. The flow and distribution of their life force apparently was governed by the complementarity, not the subordination, between the two elements forming the *Luwe/Prd* pair. That complementarity may be expressed in gendered terms (as when *Luwe* and *Mwali* appear as lovers or spouses), but apparently the first model that has been employed to express their complementarity is in terms not of a human reproductive division of labour,²⁶ but in terms of animal species whose positive or negative productive value may be limited, but which are ‘good to think of’ because they express the most striking modalities of natural power: the lion and the leopard.

Kammerzell’s linguistic analysis demonstrates that the joint distribution of **lw* and **pr/*prd* throughout Afro-Asiatic and Indo-European goes back to the Neolithic. The Neolithic archaeological evidence we have for Çatal Hüyük (8,000 BP) clearly shows the leopards in place, but it is an anthropomorphous deity, not a lion, that leans upon the two leopards. Even so we are led to conclude that already at this Early Neolithic stage, the complementarity of the lion-and-leopard cosmology is present in essentially the same form in which we encounter it several millennia later, e.g. in the temple frieze at the Neolithic site of Tell el Uqair, Mesopotamia.²⁷ The mother goddess’ leaning upon the two leopards is *not as a sign of identification but one of superiority, as if she represents the lion term in our equation, and her leaning on the leopards is a gesture of elation*. The passive, static leopards support (in a subservient stance that from the subsequent Bronze Age onwards, was seldom to be employed for the expression of maleness) the *active woman giving birth*, much as the celestial pole supports the revolving heavens. The divine woman’s leaning appears to be a gesture of superiority comparable to Tut-^cankh-Amun’s triumphantly sitting on a seat with a leopard-skin pattern, standing on a leopard, and sleeping in a bed with leopard-shaped supports. It amounts to an act of domestication. Almost certainly there is a close parallel between the Egyptian Sem priest annually officiating before the central goddess Isis (mother of the major god of royalty Horus), and the Anatolian leopards supporting the mother goddess in the act of giving birth. *Significantly, and as a source of puzzlement to Egyptologists,*²⁸ *most of many lion-associated divinities in Ancient Egypt were female (for example Matit, Mehit, Mentit, Pakhet, Sakhmet, Menet, and especially Tefnut),*²⁹ *which is in complete agreement with the point I am making here*. Meanwhile we have found another confirmation of extensive symbolic continuity in time (across four millennia) and place, and of the unmistakable parallels between Ancient Egypt and Ancient Anatolia. These parallels have hitherto largely been ignored, for several reasons: in order to maintain the disciplinary and institutional boundaries between Egyptology and Hittitology; but also because the Palaeo-Levantine language element in both has not been exhaustively explored.³⁰

So already in Early Neolithic Anatolia we find leopard and lion united in a powerful

²⁶ Leopard and lion have been known to produce offspring together under captive conditions (Wendt 1974), but such a rare occurrence could hardly have informed the ancient cosmology which I have given the name of these two species.

²⁷ Cf. Böhl 1948: 14.

²⁸ Bonnet 1971: 427.

²⁹ Tefnut’s central myth moreover gives her southern, sub-Saharan African connotations (Bonnet 1971: 770), as if to remind us that the question as to the geographical origins of *Luwe* can not yet be decided.

³⁰ Cf. Ray 1992; Kammerzell 1994; van Binsbergen, forthcoming (a).

cosmology saturated with meaning. Even so von Sicard may still be right in his claim that – prior to the Neolithic – lion and leopard traversed different trajectories before being unified into the Lévi-Straussian binary opposition in which this pair of animal species has been ubiquitously attested. Considering the great promise of von Sicard’s mythical explorations (however defective these clearly are from a methodological and linguistic point of view), it would be of considerable importance to trace the earliest history of the cosmology of the lion and the leopard in space and in time. Archaeological, iconographic and documentary sources largely fail here, but given the intimate link between von Sicard’s Luwe mythology and Kammerzell’s paired roots **lw* and **pr/*prd*, a linguistic approach might yet allow us a glimpse into the remotest past of the system.

*An exploration of the linguistic antecedents of *lw and *pr/*prd in the Bantu real*

I do not share Kammerzell’s reluctance to probe into the antecedents of the roots **pr/*prd* and **lw* before they appear throughout the Afro-Asiatic and Indo-European languages. If, as he demonstrates, the two roots cannot be considered borrowings from either of these language families to the other, only a limited number of possible explanations can be advanced for the pattern he so cogently demonstrates.

The two roots could be local innovations within the Afro-Asiatic and Indo-European families, produced jointly during the Neolithic. This is unlikely, because in that era without instantaneous mass-communication technology (such as the newspapers, television and the Internet of today), one could not account for such a rapid spread of a linguistic innovation over such a very large area, that – despite the wealth of historical linguistic material available for these two families – the direction of spread can no longer be detected.

Another and more attractive possibility is that the two roots belong to an ancient linguistic complex from which both language families emerged: the Nostratic super-family. Considering that Bomhard did not even list them in his comparison of PAA and PIE, we would not expect them to be included in the very extensive list of nearly two thousand Nostratic roots, that were claimed and argued by Bomhard and Kerns. Our earlier inspection of Nostratic animal names did not yield anything relevant, beyond stressing the unique nature of the **pr/*prd* and **lw* pair. But perhaps it is not necessarily animal names we are after. Investigating the names of animals in a pre-Neolithic situation (i.e. where hunting and gathering dominated as modes of production), we are reminded that the names of wild animals are surrounded by magical notions and taboos, and may euphemistically circumscribe external characteristics instead of directly naming taxonomic categories. Along these lines the Proto-Nostratic vocabulary does have a few promises for us in store:

- hide, skin, to hide (= conceal), **p^[h]al-/*p^[h]əl-*,³¹ a possible candidate as prototype for Kammerzell’s root **pr/*prd* especially considering the fact that the leopard is mainly coveted and represented for its pelt (especially the hieroglyphic usage in Ancient Egyptian is illuminating on this point), and is moreover noted for its stealth

³¹ Bomhard & Kerns 1994: 889, no. 60.

- to scatter, **p[h]ar-/*p[h]ər-*,³² also a possible candidate as prototype for Kammerzell's root **pr/*prd* especially considering the fact that the leopard is universally seen as spotted or variegated – a condition that may easily be conceived as resulting from scattering pigment, mud, blood, etc.
- to shine, **law-/*lew-*,³³ a possible candidate as prototype for Kammerzell's **lw* root, designating the lion with its elaborate diurnal and solar symbolic connotations.

So there are reasons to consider Kammerzell's roots as belonging to a North African/Eurasian complex, which, if found in sub-Saharan Africa at all (as von Sicard's analysis suggests it is), was probably introduced there from the Nostratic realm (as von Sicard suggests it was, by postulating an origin for Luwe outside Africa). On the other hand, the cosmology of the lion and the leopard is widely distributed and deeply integrated in African societies. African habitats of the lion and leopard largely coincide with the region where Niger-Congo is being spoken today. We cannot conclude our argument before investigating the possibility of a sub-Saharan African origin for Kammerzell's roots. And what is more: since somatically modern man originated in Africa,³⁴ c. 100,000 BP, the semantic and lexical traits captured by Kammerzell's root may have belong to a pre-Nostratic language almost certainly originating in Africa, in the Upper Palaeolithic.

But let us concentrate on contemporary African languages. The Niger-Congo language family extends immediately south of the Afro-Asiatic-speaking belt, although the latter's interface with Niger-Congo is interspersed with large Nilo-Saharan-speaking regions of the Niger valley, Chad, Sudan, and Kenya. Niger-Congo is the obvious place to look for Kammerzell's roots. The most widely spread and best studied cluster within this family is that of the Bantu languages, reaching all the way from the Sudanic savannah to Eastern Cape, South Africa. An examination of Bantu lexical patterns could be a profitable approach to identifying the earlier history of our roots.

At first sight our exploration appears to be doomed. The high degree of homogeneity of the Bantu linguistic family (which also reveals it as relatively young) has allowed linguists, foremost Malcolm Guthrie, to reconstruct *Common Bantu* and *Proto-Bantu* with a high degree of plausibility. This has yielded the roots listed in Table 1.

³² Bomhard & Kerns 1994: 907, no. 46. Similar roots, conceivably related and also capable of producing the 'variegated' effect, mean 'to shake': **p[h]il-/*p[h]el-*, **p[h]ir-/*p[h]er-*; Bomhard & Kerns 1994: 909, nos. 64, 68.

³³ Bomhard & Kerns 1994: 910, no. 580.

³⁴ Anati 1999; Shreeve 1996.

	word							
	cimba(1)	cimba(2)	cUbi/cUbi	go	goyi	gUe	cUmpa	koci
Guthrie number	357	355	399	834	862	866	–	1102
region	D: 4; NW, East	SW/NE	D:1; East, NE	D:4; N. & C. West., N. & C. East or North., Cent.	D: 2; North	D: 3; S.W, N. & S. East. or South., NE		D: 1; West
species designated by this word	lion	leopard	leopard	leopard	leopard	leopard	leopard, lion	lion

Table 1. The words for lion and leopard in contemporary Common Bantu.³⁵

Meanwhile other authors³⁶ have added to this common repertoire the words *gida* (lion; gorilla), *podogoma* (lion), *kodi* (lion), *kopi* (leopard, lion, any feline), *koki* (lion), *tamboi* (lion), and *tade* (lion), but these do not resemble our two roots any closer, perhaps with the exception of *podogoma* (a word found in Tanzania and northern Mozambique, and listed to mean ‘snorer’), where the consonantal structure of **prd* might be suspected to shimmer through.

Also Proto-Bantu fails to bring out our two roots in any recognisable form, as table 2. demonstrates.

author	lion	leopard	other felines
Guthrie 1967b ³⁷	-*cimba -*kOci	-*gO -*cobe, cobi -*gOji -*go -*gOê	-*tungO = civet cat -*cimba = wild cat
Meeussen ³⁸	-*cimba -*kodi -*koki	-*cubi -*goi	-*cimba = wild cat -*cubi = cheetah, hyena(!), vulture (!) -*paka = wild cat -*tungo = civet cat

Table 2. Lion, leopard and other felines in Proto-Bantu.

We note in passing a trait that is familiar among local systems of natural classification all over the world: the semantic application of the names of animal species often ignores such distinctions as North Atlantic scientific taxonomy since Linnaeus would consider this as self-evident. Thus, in Common Bantu, *cimba* or *cUmba* may be used to designate a lion (*Panthera leo*), but also a leopard (*Panthera pardus*); *cimba* is even in use for the wild cat

³⁵ Source: http://www.cbold.ddl.ish-lyon.cnrs.fr/CBOLD_Lexicons/CommonBantu.Guthrie1967a/FileMaker/. Here and below lack of linguistic competence has forced me to omit all reference to tones.

³⁶ Notably A. Coupez, Y. Bastin and E. Mumba of the Musée Royal de l’Afrique Centrale, Tervuren, Belgium, at: http://www.cbold.ddl.ish-lyon.cnrs.fr/CBOLD_Lexicons/BLR2.Tervuren1998/FileMaker/.

³⁷ http://www.cbold.ddl.ish-lyon.cnrs.fr/CBOLD_Lexicons/Proto-Bantu.Guthrie1967b/MSWord5/.

³⁸ http://www.cbold.ddl.ish-lyon.cnrs.fr/CBOLD_Lexicons/Proto-Bantu.Meeussen1967/MSWord5/.

(*Felis sylvestris*).³⁹ These three species are very different in size, colouring, fur patterning, behaviour, food habits, and relationship with humankind. Even animals from outside the feline family (the hyena, i.e. a canine), and even outside the mammal order (the vulture, a bird) may be denoted by the word *-cubi*, which however is also widely used for the cheetah.

We conclude that our roots **pr/*prd* and **lw* do not constitute an integral part of Bantu, and that it is unlikely they derive from the wider phylum of Niger-Congo, where we have already encountered *inchwe*, *ngbe*, etc. as very widespread designations for the leopard, well in line with Proto-Bantu. It is certainly not from Niger-Congo that Kammerzell's roots have entered and conquered Afro-Asiatic, Indo-European, and in fact the entire Nostratic realm. Nor could we expect that they did considering the relative youth of the Bantu linguistic family.

But so far we have been arguing from the underlying general basic lexical structure of Bantu. Is it not possible that throughout the hundreds of languages belonging to the Bantu family, lexical traces of our two roots may be found as alien intrusions or as remnants of an older substratum, which do not belong to Proto-Bantu and have not achieved systematic widespread incorporation into the Bantu lexicon?

With this question in mind I have scrutinised the lexicons of over two hundred Bantu languages, identifying the words for lion and leopard and if possible for other felines there, and trying to ascertain if these words could be considered manifestations of the roots **pr/*prd* and **lw*. Engaged in a mere exploratory digression, as a non-linguist, I did not draw up explicit correspondence tables between our two roots and such altered forms under which they might manifest themselves in specific Bantu languages. Instead my approach has been largely intuitive, and as such extremely provisional; the entire analysis will have to be repeated under much stricter conditions and with professional methods and expertise. Methodologically, my rule of thumb is to consider a word a *possible* – and certainly no more than that – manifestation of Kammerzell's two roots, if

- it semantically refers to a feline without clearly corresponding with the Common Bantu and Proto-Bantu forms listed in the above tables;
- it resembled the proper names featuring in von Sicard's mythical analysis;
- its consonantal structure is reminiscent of our roots:
 - l(r, d, ...)+u/w for **lw*;
 - p(mp, mb, m, n, ny, ng, ...)+r(l, d, ...) [+ d(l, r, ...)] for **pr/*prd*.

I realise that tonal and vocal structures should also have been taken into account, and that my identification rules remain far too implicit, unsystematic and unsupported by the etymological possibilities and impossibilities of Bantu historical linguistics to yield anything coming near to definitive and convincing results.

With all these reservations, the results of this complex and time-consuming exercise are presented in Table 3. Although I tried to refrain from wishful thinking, the number of possible manifestations of the **pr/*prd* root is suspiciously high. Considering that I worked with a sample (the recognised number of Bantu languages is several times larger than represented in my corpus), the number of *possible* manifestations might even be higher if the entire population (i.e. 'all different' Bantu languages) had been taken into account – with all the notorious taxonomical and political problems of demarcation that that would have entailed. The number of possible hits for **lw* is much smaller, and may depend more on

³⁹ Taxonomic names after Whitfield 1984.

similarity with the mythical names cited by von Sicard, than on real linguistic criteria. We notice again a characteristic lack of taxonomic precision: words more frequently denoting the leopard yet are also in use for the lion, and the words for smaller felines echo those for larger felines. Thus the same overall lexical repertoire is used to designate the cheetah (*Acinonyx jubatus*), various species of civet cat (*Viverridae*), and the serval (*Leptailurus/Felis serval*). Even a different taxonomic family – the cane rats (*Thryonomyidae*, large rodents) is denoted by the same lexical material.

The Bantu lexical elements possibly reminiscent of Kammerzell's **pr/*prd* root occur throughout the southern half of the African continent, over expanses of thousands of kilometres. In Figure 5 I mapped the distribution of the material presented in Table 3.

		<i>possible manifestations of the root:</i>	
		<i>*pr/*prd</i>	<i>*lw</i>
meaning 'lion'		<i>indare</i> (Kilegi°); <i>ngare</i> (Kiseri°, Mkuu°); <i>inyaruli</i> (Masaba); <i>i-nyalupala</i> (Wanji°, Bena°); <i>thiburi</i> , 'honorific title for lion' (Venda)	<i>ikul ongana</i> (Ngoli = N.W. Bantu); <i>se-lau</i> , 'like a lion' (Tswana); <i>tshiluvhelo</i> , 'chief's lion cloth' (Venda); <i>isilwane</i> (Ndebele)
meaning 'leopard'		<i>suwi endala</i> (Kerebe°); <i>ngarI</i> (Kikuyu°); <i>waru</i> (Kibosho°); <i>oluwaru</i> (Kibosho.unn°); <i>indara</i> (Kilegi°); <i>irumu</i> (Kimochi.unn°); <i>a-havara</i> (Makhua); <i>nrupici</i> (mi-), 'male leopard' (Makhua); <i>nkari</i> (Merutig°); <i>nyalugwe</i> (Chewa); <i>ngulamu</i> (Kiseri°, Kiseri.unn°); <i>ngulam</i> (Mkuu°); <i>inkampu</i> (Namwanga°); <i>kambuku</i> (Chewa); <i>(i)nkampu</i> (Wanda°); <i>kampulu</i> (Nkoya); ⁴⁰ <i>enzumula</i> (Zinza°); <i>nyamanru</i> (Siha°); <i>nyamandru</i> (Siha.unn°); <i>imbwili</i> (Bemba); <i>tambola</i> (Bobangi); <i>ibole</i> (Nyakyusa°); <i>-bado</i> , 'spot, e.g. of leopard' (Sukuma); ⁴¹ <i>mbada</i> (Shona); <i>empala</i> (Lusoga°)	<i>zolongoi</i> , <i>loowa</i> (Bobangi); <i>rungu</i> (Vunjo°)
meaning any other feline or similar mammal	'(wild) cat'	<i>ulembe</i> (Malila°); <i>kembhore?</i> (Ikizu°); <i>kembulu</i> (Shashi.siz°); <i>kimbulu</i> , <i>kimbulu</i> (Sukuma°); <i>ci-twulu</i> , 'spotted wild cat' (Yao); ⁴² <i>imaro</i> (Kinga°); <i>mwambala</i> (Bakweri); <i>ibarananda</i> (Mkuu°); <i>iraami</i> (Siha°); <i>ukharamula</i> , 'scratch, esp. Wild cat family' (Makhua); <i>ndele</i> (Nyaturuwil°); <i>ebala</i> (Sonjo°)	
	'cheetah'	<i>mpala</i> (Gwere°, Lusoga°); <i>rigendamweri</i> (Ikizu°); <i>ivalavala</i> (Kimbu°); <i>dibalabiila</i> (Tshiluba); <i>ngare</i> (Machame°); <i>narocho</i> (Merutig°); <i>nyalubwe</i> (Mwera°); <i>iruthi</i> (Tharaka°)	<i>imuluva</i> , <i>ilituluva</i> (Hehe°); <i>ilituluuva</i> (Bena°); <i>mlula</i> (Gweno°); <i>rungwi</i> (ya ngoe) (Vunjo°)
	'civet cat'	<i>-mbala</i> (Ipuu, Sangu); <i>kemboro</i> (Ikizu°); <i>umbulu</i> [<i>ombo:lo</i>] (Wungu°); <i>chivulu</i> (Yao°); <i>ulembe</i> (Nyiha°); <i>dzambarananga</i> (Venda)	<i>rongi</i> (Nyaturuwil°)
	'serval'	<i>mbale</i> (Mambwe)	
	'cane-rat'	<i>etiisyabale</i> (Bukusu, Masaba)	

Table 3. Possible manifestations of the roots **pr/*prd* and **lw* in a corpus comprising more than 200 languages of the Bantu family

Between parentheses: names of Bantu languages for which positive attestations were made. In total, I have analysed the lexicons of 89 languages from all over the Bantu-speaking region, and in addition the languages included in the Tanzania Language Survey (TLS), which again comprises 122 Bantu languages.⁴³ The TLS languages are marked thus: °. The orthographic rendering of the words is unsatisfactory: the more than 200 languages in the corpus have been described, usually by professional linguists, following a great variety of orthographic conventions for phonemes and tones, which was impossible to unify in the present scheme.

⁴⁰ Source: the author. For all other languages, see Legend to this table.

⁴¹ Sukuma was included in the Tanzania Language Survey, but in the data presented there no obvious manifestations of the **pr/*prd* and **lw* roots were found; the information on *-bado* derives from Mann, http://www.cbold.ddl.ish-lyon.cnrs.fr/CBOLD_Lexicons/Sukuma.Mann1966/MSWord5/.

⁴² Yao was included in the Tanzania Survey of Languages, but it is also available in a lexicon by Ngunga: http://www.cbold.ddl.ish-lyon.cnrs.fr/CBOLD_Lexicons/Yao.Ngunga2001/FileMaker/.

⁴³ I mainly used the splendid collection of on-line Bantu dictionaries at: http://www.cbold.ddl.ish-lyon.cnrs.fr:16080/CBOLD_Lexicons/. The Tanzania Language Survey is located at: <http://www.cbold.ddl.ish-lyon.cnrs.fr:16080/Docs/TLS.html>.

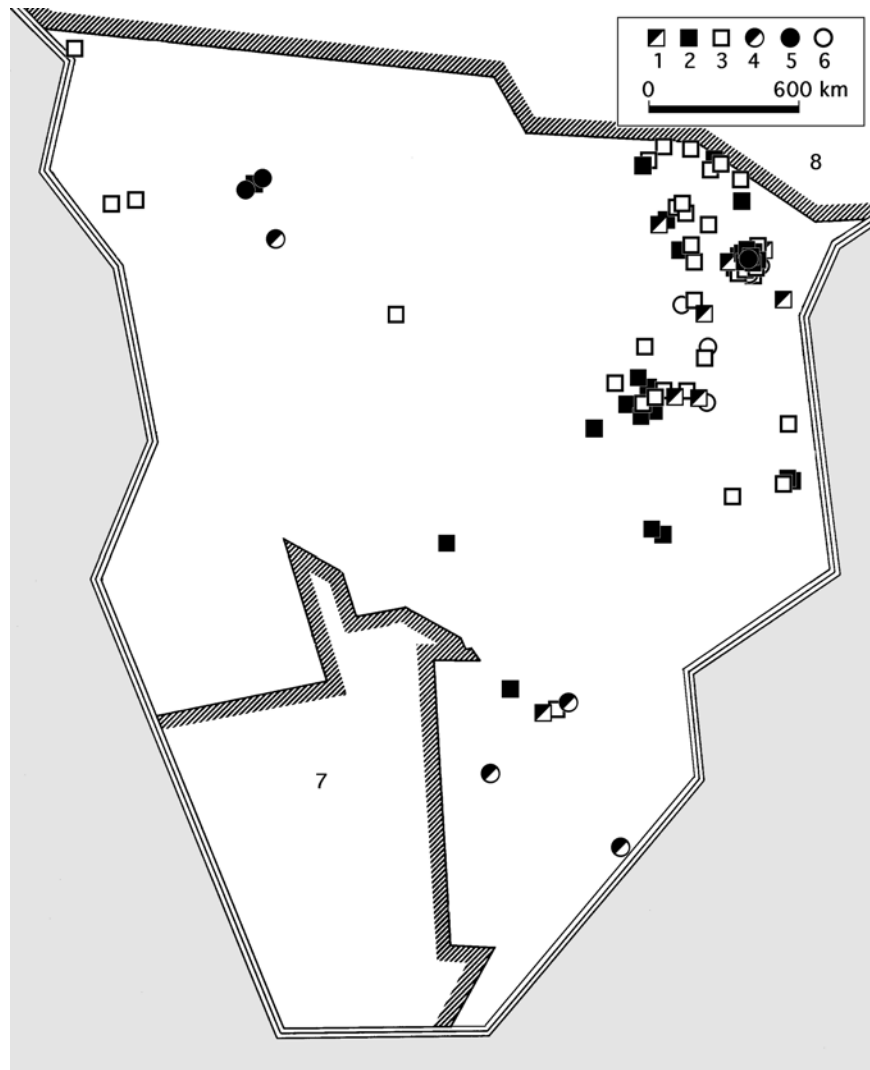


Figure 5. The geographical distribution of possible manifestations of the roots **pr/*prd* and **lw* in a corpus comprising more than 200 languages of the Bantu family.

1-6. Possible contemporary manifestation, in the Bantu-speaking region, of the root

1. **pr/*prd* with the meaning of 'lion'
2. **pr/*prd*, with the meaning of 'leopard'
3. **pr/*prd*, with the meaning of 'any other feline' (see table 3 for details)
4. **lw*, with the meaning of 'lion'
5. **lw*, with the meaning of 'leopard'
6. **lw*, with the meaning of 'any other feline' (see table 3 for details)

7. Khoi-San speaking region (as in the eighteenth century CE)

8. The linguistic belt north of the contemporary Bantu-speaking region. Here in the west the Niger-Congo super-family is continued to which also Bantu belongs. In the east Nilo-Saharan is spoken. The Afro-Asiatic-speaking region forms a belt north of the Niger-Congo region, interspersed with large Nilo-Saharan-speaking regions of the Niger valley, Chad, Sudan, and Kenya.

Geographical location of language areas according to Guthrie numbers as on a map provided by T. Schadeberg.⁴⁴

Caution is needed here: the excessive clustering in the north-east Bantu region inevitably reflects the fact that the Tanzania Language Survey alone, with its consistent recording of the same fairly extensive lexical material for more than a hundred languages, contributed more

⁴⁴ At: <http://www.cbold.ddl.ish-lyon.cnrs.fr:16080/Maps/AssortedMaps/CompBantu65.gif>.

languages to our corpus than the rest of the entire Bantu-speaking region.

However, we are reminded that also in von Sicard's mythical data a clustering on Tanzania occurred. Yet Tanzania can hardly be said to be the part of Bantu-speaking Africa best covered by mythographers and students of religion. In other words, although the Tanzanian linguistic clustering is partly an artefact of the composition of our corpus, it probably also reflects a genuine clustering in reality – always assuming that my identification rule of thumb for the identification of possible manifestations of the **pr/*prd* and **lw* roots, although admittedly defective, is not totally invalid. Outside Tanzania, the distribution of possible manifestations of the **pr/*prd* root is sparse but fairly constant, with the exception of the central west of the Bantu region (Gabon, Congo-Brazzaville, Angola), where no cases were found. The south-west corner of the African continent is historically (up to the nineteenth century CE) the area where not Niger-Congo but Khoi-San was spoken, so no Bantu occurrences were listed here.

The above analysis, however lacking in terms of professional linguistic methods, seems partially to confirm our initial impression based on cultural historical analysis: the root **pr/*prd* has a firm footing in sub-Saharan Africa, especially in the north-eastern part of Bantu-speaking Africa. For the **lw* root the outcome is almost negative, which confirms von Sicard's idea of a northern origin of the Luwe/lion-associated elements, as distinct from the Mwali/leopard-associated elements.

The linguistic record thus partly matches the mythico-religious record analysed by von Sicard. But we should remind ourselves that this is not a case of totally independent corroboration. Von Sicard also used lexical material and imputed etymological relationships between mythological and divine names (without substantiating these by explicit correspondence tables and an underlying theory of phonetic and morphological change) to construct his various categories for the nomenclature of the Luwe figure and his companion, while my identification of possible attestations of Kammerzell's roots was inspired by the mythico-religious proper names featuring in von Sicard's study.

Still assuming that the entire approach has some validity, how can we explain the pattern that is emerging from Table 3 and Figure 5? Kammerzell's roots clearly do not belong to Proto-Bantu, so we must take them to be alien elements in the Bantu region: either introduced from elsewhere, or the remnants of an old pre-Bantu substratum locally.

Let us first consider the possibility of introduction from elsewhere. The north-eastern Bantu region borders on the Afro-Asiatic-speaking region and, considering the ubiquitous distribution of our roots in the latter, they might derive from Afro-Asiatic or from Nostratic in general. The closeness of the Indian Ocean in the north-eastern Bantu region, and the attested influx of immigrants from the Persian Gulf in Eastern and Southern Africa, allows moreover for the possibility of lexical material being introduced from other Afro-Asiatic, Indo-European and general Nostratic (for example Elamo-Dravidian, Sumerian) lexical material. We might even think of Austronesian lexical material voyaging to Africa (along with xylophones and other musical instruments, cowries, Conus shell ornaments, woodcarving techniques, selected myths, cosmologies, and forms of kingship)⁴⁵ from Indonesia via Ceylon and Madagascar. The striking fact that the essential, eponymical Bantu root *-ntu*, 'human' has semantically and phonetically a match in Proto-Austronesian *taw*⁴⁶ suggests that here lies an analytical potential that we should not overlook.

However, a stronger case could be built for an explanation in terms of an ancient

⁴⁵ Cf. van Binsbergen, forthcoming (a).

⁴⁶ Cf. Adelaar 1994. The Austronesian family comprises many languages in South-east Asia and Oceania.

substratum underlying the relatively recent (first few millennia BCE?) introduction of Bantu in East Africa. Here, as my analysis bears out, the **pr/*prd* root is rather popular as a designation for the lesser felines – as if this root does indeed represent an older substratum of lexical material, continued to be cherished in the specialist and taboo-ridden language of hunters and doctors (the two professions most interested in lesser felines), and was not allowed to disappear completely even though the intrusion of the general Bantu lexicon (probably from the northwest) introduced new, soon common, words for the larger felines. The clustering of possible manifestations of our two roots in Tanzania may be related to the fact that here pockets have survived of Khoi-San-related click languages (Hadza and Sandawe), which of course, not being Bantu languages, did not contribute to our data in Table 3 and Figure 5 above. Linguists are no longer prepared to classify these two languages as Khoi-San;⁴⁷ yet there are striking similarities between the Tanzanian and certain Southern African Khoi-San speaking groups both in phonetics and in hunter-gatherer modes of production. There is a general consensus that Khoi-San, the language of the earliest African pastoralists leaving their traces in rock arts from the Sahara to Southern Africa, have constituted an earlier, largely superseded, linguistic, cultural and demographic presence in much of what is today Bantu-speaking Africa. The genetic composition of Bantu-speaking populations of Southern Africa is known to derive much from Khoi-San speakers (not only pastoralists but also hunter-gatherers) who (whatever their geographical origin) have been known to live in this region for millennia; and the same applies to their languages. The Nkoya of Zambia, a hunting people loosely organised in rather ephemeral bilateral local groups without a strong lineage element, also have a certain cultural affinity with the Khoi-San living not too far south of them just across the confluence of the Zambezi (= Lyambāy, ‘Lion’) and Chobe (= ‘Leopard’) rivers.⁴⁸ For other South Central and Southern African cultural groups the Khoi-San affinity is far less marked. Yet several languages from this part of Africa (Nkoya, Chewa, Shona, Tswana, Ndebele, Venda) have yielded several positive scores in Table 3. This may be due to a Khoi-San element in these languages, and reinforces the suggestion contained in the Khoi-San-related pocket in Tanzania.

In Nama, one of the first Khoi-San languages to be studied linguistically,⁴⁹ the word for ‘leopard’ is *|garub*, ‘the variegated one’, in reference to his fur pattern. The name is merely a specific application of the adjective *|garu*, ‘variegated’, for example *|garu gūs*, ‘the herd of variegated cattle’.⁵⁰

Another Nama name for the leopard is *ḫhūiseb*, ‘distributor of food’, for it tends to leave part of its kill for others to eat. In a manner found among hunters all over the world, in this case also the animal species is not directly mentioned by a unique proper name (which tends to be taboo), but alluded to by reference to the species’ material or behavioural

⁴⁷ Blench 1993: 134f.

⁴⁸ It is significant that the mightiest system of rivers in South Central Africa, the Zambezi river joined by the Chobe only a few score kilometres before the magnificent Musi-a-Tunya (‘Thundering Smoke’, i.e. Victoria) Falls, should have been named indigenously after the pair of the lion and the leopard with, of course, the leopard being assigned to the junior element in this system. Such toponymy in itself confirms the validity of my general symbolic analysis of the ancient cosmology of the lion and the leopard. However, our euphoria on this point is dampened by the fact that more common name of the major Zambezi tributary at the point is Linyanti (i.e. Buffalo River) rather than Chobe.

⁴⁹ Rust 1969.

⁵⁰ Not having noticed that the juxtaposition between lion and leopard is the backbone of the mythical system he described under the name of Luwe, von Sicard lists Gorob (unmistakably the Khoi-San name for leopard) as a variant of Luwe.

characteristics. Nama nomenclature for the leopard has the ring of a hunting culture, and brings out a central theme in the genesis of humankind which we will discuss below: the latter's early dependence on the great predators.

We should be careful lest we revert to the same ahistorical essentialism chided above with regard to 'Bushmen' studies: contemporary Khoi-San speakers are actors in a modern context, and neither cultural nor linguistic remnants from the Upper Palaeolithic. The **pr/*prd* root, with its ramifications all over the huge Nostratic realm and its insistent apparent manifestations in Bantu languages, does not necessarily derive directly from Khoi-San, although the Neolithic herdsman of the fertile Sahara may well have spoken languages close to Khoi-San. However, the identity of the Khoi-San and the Nostratic semantics involved in the naming of the leopard is striking: throughout, the leopard appears as 'the spotted one' or as 'the skin animal'. Here also lies the link with Common Bantu and Proto-Bantu. After all, it is immaterial whether my rule of thumb for the identification of lexical forms reminiscent of the **pr/*prd* root in Bantu is permissible by the norms of state-of-the-art linguistics; of course it is not. The important thing is that, while the lexical forms in Tables 8.2 and 8.3 differ greatly from the Nostratic and Khoi-San ones, and from each other, most of them still have the same underlying semantics in terms of 'the spotted one' or 'the skin animal' (Table 4).

Conceptually, we are attesting a semantic complex extending from the Cape of Good Hope to the North Cape and the Bering Street and from there again to Greenland, even though, given the enormous linguistic variety over that huge stretch of land covering most of the Old World, we could never hope, of course, to reduce all the attending lexical forms to one common root and argue their derivations in detail.

Guthrie ⁵¹			Meeuwssen ⁵²	
<i>word</i>	<i>Guthrie number</i>	<i>semantic</i>	<i>word</i>	<i>semantics</i>
-cob-	398	to skin	-cubi	hyena, leopard, tiger cat
-gobO-	873	skin, garment	-koba	skin, piece of skin
-bad-	18	spot, speckle		
-bada-	18	to speckle	-bada	spot, speck

Table 4. The semantics underlying most of the leopard's names in Proto-Bantu and Common Bantu

Note that the *-bad-*, *-bada-* form rather closely approaches, both semantically and phonetically, the **pr/*prd* form in Afro-Asiatic

While it has been Kammerzell's merit to spot the unique ubiquity of his two roots and thus inspire the present analysis, we have advanced on his semantic analysis. In his approach, **prd* remains a name that is in itself semantically void and from which, in its turn, other semantic elements are merely derived: such associated meanings as 'four-animal', 'ferocious animal', 'tearing apart' all refer, secondarily, to specific characteristics of an animal already supposed to be named **prd* in the first place. Particularly his remarkable point about the 'four' connotations of the leopard turns out to be a rather secondary feature, limited to the Ancient Near East, and rendered less significant by the immense spatial and temporal distribution of the **pr/*prd* root beyond that region and period, throughout the Nostratic

⁵¹ http://www.cbold.ddl.ish-lyon.cnrs.fr/CBOLD_Lexicons/Proto-Bantu.Guthrie1967b/MSWord5/.

⁵² http://www.cbold.ddl.ish-lyon.cnrs.fr/CBOLD_Lexicons/Proto-Bantu.Meeussen1967/MSWord5/.

realm. Both the ramification of this root throughout the Eurasian realm with the meaning ‘*spotted and/or skin*’ well supported by Proto-Nostratic and the Khoi-San evidence, suggest that Kammerzell’s emphasis on the leopard as four animal concerns a relatively local, ephemeral trait in the Ancient Near East, that did not eclipse the original, Proto-Nostratic or even older, semantics permanently.

Whereas we have thus attempted to thresh out some of the historical problems attending the **prd* root, it is impossible to claim an African ancestry for the **lw* root on the basis of our linguistic analysis in this chapter. The Bantu evidence is negative. The Nama word for ‘lion’ is *xami*, which probably means ‘the hunter’ (cf. *xama*, ‘luck when hunting’; *xamaren*, ‘quarry, prey’), but this does not match at all with the **lw* root phonetically, yet tallies semantically with Luwe as, in the first place, a hunting god. We would do well to retain von Sicard’s idea that the two components of the Luwe/Mwali pair reached their joint position in African mythology and religion at the end of very different paths, only a few millennia ago.

Appendix: Leopard and horse

Assuming (on methodological and empirical grounds of cultural comparison which I have presented at length elsewhere⁵³ but which are outside our present, linguistic scope) that there is in fact an Old World system of leopard symbolism extending from Africa, Ancient Egypt, and European Antiquity right into classical Chinese culture, interesting lexical perspectives open up in the context of the myths surrounding the Chinese culture hero Fu Hsi (伏羲, Fu Xi in modern *pinyin* transliteration). In a famous late Sung dynasty (mid-thirteenth century CE) Fu Hsi is depicted wearing a leopard skin around his knees, and an antelope skin around his shoulders.⁵⁴ Allegedly, he had the eight kuā (traditionally the first writing signs, and the basis of I Ching cosmological symbolis) revealed to him by an animal that emerged from the Yellow River, displaying the designs on its back. According to one tradition this animal, commonly considered a ‘dragon’ or a ‘dragon-horse’, was specifically a ‘horse’.⁵⁵ In a picture⁵⁶ from the Tang dynasty (late first millennium CE) a horse-hoofed Fu Hsi is depicted confronting a horse-hoofed dragon! All this might associate Fu Hsi, and the trigrams of his invention, more with a context of horse-riding in Central Asia than in China where horse-riding appears to have been a somewhat later introduction. There is yet another possibility. In contrast to the horse’s skin, which tends to be unpatterned or at most vaguely dappled, the leopard’s skin and the tortoise carapace are characterised by a composite pattern of distinct, more or less circular, basic shapes while the trigrams are also traditionally organised in a circular pattern. Although there is both phonetically and orthographically a great difference in Chinese, between ‘horse’ (*ma*, 马, classic form 馬), and ‘leopard’ (*bào*, 豹), Ma Lin’s drawing might allude to an otherwise unknown or suppressed tradition according to which the trigrams were originally found on the back, not of a horse, but of a leopard. If the story had been told in Dutch instead of Chinese, we might have invoked the affinity between the

⁵³ Cf. van Binsbergen, in press, chapter 8.

⁵⁴ Cf. Christie 1968: 39 (where Sung is antedated by 800 years!); Great National Treasures of China, n.d. The portrait is a conventional item in the present-day Taoist iconographic repertoire; a greatly enlarged, crude reproduction can even be found as a billboard on the premises of the White Cloud temple in Beijing, headquarters of the Chinese Taoist association.

⁵⁵ Lî Kî VIII, iv, 16 as quoted in Legge 1988b: 14.

⁵⁶ Cherry 1995: 26.

former language's word for 'horse', *paard*, and the **pr/*prd* root for 'leopard'; *paard/horse* could then be taken to mean 'terrifying beast' (cf. leopard), as it may certainly have appeared to non-equestrian West European populations first confronted with horsemen. But all authorities give for *paard*, German *Pferd*, the etymology *paraveredus*, from Greek *para-* and Latin *veredus*.⁵⁷ On the surface this has nothing to do with the root **pr/*prd* underlying *leopard*. Yet an appeal to the Greek prefix *para-* in order to explain an old West European word is highly suspect. Could we not, instead, discern, in the originally Gallic word **voreidos*, and in the Cymric (Welsh) *gorwydd*, Kammerzell's **prd*, 'the terrifying beast'?

The possibility of reading 'leopard' in place of 'horse' also occurs in another source from which we have already drawn: Plutarch's famous *De Iside et Osiride*. Here (ch. 19) Osiris returns from the underworld to help prepare his son Horus for the battle with Seth. Osiris asks Horus what animal he considers most useful for those going to battle. Osiris expects him to answer 'a lion', but instead Horus answers: 'a horse'. When the father expresses his surprise at this answer, the son explains, hardly convincingly, that a lion merely enables one to defend oneself, while a horse allows one to pursue the enemy and to vanquish him. This Greek passage is cryptic and probably corrupt; the professor of Greek, Hartman, for instance, who had his translation checked by the specialist in ancient religions, Brede Kristensen, proposes as many as three fundamental emendations before settling for a translation.⁵⁸ The horse was only introduced in Egypt in the middle of the second millennium BCE, and therefore is an anachronism in the supposedly prehistoric times when Osiris lived. My analysis in the course of this chapter would suggest that underlying the far-fetched juxtaposition of lion and horse is a far more obvious one, attested for three continents and five millennia, namely, that between lion and leopard. But how could Plutarch, or his Egyptian or Egyptianising spokesmen in the early Common Era, have introduced 'horse' in the place of 'leopard'? The answer is not difficult to find. The usual Ancient Egyptian word for horse is *ssmt*, which does not help us. But the word for 'stallion' is *ibr*, and that has a close phonetic similarity with the Ancient Egyptian word for leopard, *b3* or *3by*.⁵⁹ What is more, in all probability both *ibr* and *b3/3by* derive from Kammerzell's root **pr* in the sense of 'formidable animal'. Gardiner⁶⁰ adduces a parallel with the Hebrew *abīr* in the sense of 'stallion', which is also interpreted as a form of the verb *abr*, 'to soar', and in that form means 'bull, angel, mighty one, God'.⁶¹

References

Adelaar, S., 1994, 'Asian roots of the Malagasy: A linguistic perspective', paper presented at the International Congress on Malagasy cultural identity from the Asian perspective, March 28-29, 1994, Leiden, The Netherlands.

⁵⁷ C. Tucker 1985 s.v. 'verēdus'; de Vries 1967 s.v. 'paard'; Kluge 1934 s.v. 'Pferd'.

⁵⁸ Hartman n.d.: 368; this book contains a full Dutch translation of Plutarch's *De Iside et Osiride* on pp. 360-398.

⁵⁹ Kammerzell 1994; Ward 1978; Gardiner 1994; the phonetic value of 3 is *a*, *ar*, *er*.

⁶⁰ Gardiner 1994: 459, under E6.

⁶¹ Strong 1989. The web of intercontinental prehistoric connections should not be allowed to expand infinitely less it fractures, and the whole credibility of my approach with it, but it is tempting to add that the original name of Horus, *hor*, 'falcon, hawk', with the semantic implication of 'being high, being free, soaring', is – as we shall see below – one of the very few names of wild animals to be included (as **hur-/*ħor*) in the Proto-Nostratic vocabulary; cf. Bomhard & Kerns 1994: 889, no. 406.

- Anati, E., 1999, *La religion des origines*, Paris: Bayard; translated from the Italian, 1995, *La religione delle origini*, n.p.: Edizione delle origini.
- Baumann, H., 1956, 'Die Frage der Steinbauten und Steingräber in Angola', *Paideuma*, 6: 188-157.
- Blench, R., 1993, 'Recent developments in language classification and their implications for prehistory,' in: Shaw, T., Sinclair, P., Andah, B., and Okupo, T., eds., *The archaeology of Africa*, New York: Routledge, pp. 126-137.
- Böhl, F.M.T., 'De Babylonisch-Assyrische godsdienst (Sumer en Akkad)', in: van der Leeuw, G., ed., *De godsdiensten der wereld, I-II*, Amsterdam: Meulenhoff, 2nd edition, pp. I, 110-167.
- Bomhard, A.R., 1984, *Toward Proto-Nostratic: A new approach to the comparison of Proto-Indo-European and Proto-Afroasiatic*, Amsterdam/Philadelphia: John Benjamins.
- Bomhard, A.R. & Kerns, J.C., 1994, eds., *The Nostratic macrofamily: A study in distant linguistic relationship, Trends in Linguistics, Studies and Monographs 74*, Berlin/New York: Mouton de Gruyter.
- Bonnefoux, B.M., 1941, *Dicionário Olunyaneka-Português*, Huila (*non vidi*).
- Bonnet, H., 1971, *Reallexikon der ägyptischen Religionsgeschichte*, Berlin: de Gruyter; reprint of the 1952 edition.
- Cherry, J., 1995, *Mythical beasts*, London: British Museum Press.
- Christie, A., 1968, *Chinese mythology*, London: Hamlyn.
- de Mecquenem, R., 1949, *Épigraphie proto-élamite*, Paris: Mémoires de la Mission archéologique en Iran, 31, Paris: Presses Universitaires de France.
- de Vries, J., 1967, *Etymologisch woordenboek: Waar komen onze woorden vandaan? herzien door P.L.M. Tummers*, Utrecht/Antwerpen: Spectrum.
- Durkheim, E., 1912, *Les formes élémentaires de la vie religieuse*, Paris: Presses Universitaires de France.
- Gardiner, A.H., 1994, *Egyptian grammar: Being an introduction to the study of hieroglyphs*, revised third edition, Oxford: Griffith Institute/Ashmolean Museum; this edition first published in 1957; originally published in 1927.
- Great National Treasures of China, n.d., at:
<http://www.cca.gov.tw/Culture/museum/npmtr/B1115/B111501/index.htm>.
- Hartman, J.J., n.d. [c. 1915] *De avondzon des heidendoms: Het leven en werken van den wijze van Chaeronea*, 3rd impression, Zutphen: Thieme.
- Houlihan, P.F., 1996, *The animal world of the pharaohs*, London: Thames & Hudson.
- Kammerzell F., 1994, *Panther, Löwe und Sprachentwicklung im Neolithikum*, Göttingen: Lingua Aegyptia Studia Monographica 1.
- Kluge, F., Rev. Götze, A., with W. Krause, 1934, *Etymologisches Wörterbuch der deutschen Sprache*, eleventh edition, Berlin/Leipzig: de Gruyter; first published in 1881.
- Labat, R., 1988, *Manuel d'épigraphie akkadienne: Signes, syllabaire, idéogrammes*, sixth edition, revised by F. Malbran Labat, Paris: Geunthner; fifth edition published in 1976; first published in 1948.
- Legge, J., 1988b, 'Introduction' [to Texts of Confucianism], in: Müller, M., ed., *Sacred Books of the East: Translated by various oriental scholars, vol. 16*, Delhi: Motilal Banarsidass, pp. 1-55; first published in 1880-1910, Oxford: Clarendon Press.
- Lévi-Strauss, C., 1962a, *La pensée sauvage*, Paris: Plon; translated in English, 1973, *The savage mind*, Chicago: University of Chicago Press/London: Weidenfeld & Nicholson; first published in 1966.
- Lévi-Strauss, C., 1962b, *Le totémisme aujourd'hui*, Paris: Presses Universitaires de France.
- Malinowski, B., 1954, *Magic, science and religion and other essays*, New York: Doubleday (Anchor); first published as a collection in 1948.
- Mellaart, J., 1966, 'The leopard shrines of Çatal Hüyük', in: *Illustrated London News*, June 4, pp. 24-25.
- Ray, J.D., 1992, 'Are Egyptian and Hittite related?', in: Lloyd, A.B., ed., *Studies in pharaonic religion and society in honour of J. Gwyn Griffiths*, London, Egypt Exploration Society, pp. 124-136.
- Rust, F., 1969, *Nama Wörterbuch: (Krönlein redivivus): J.G. Krönlein's Wortschatz der Khoi-Khoine (erschienen 1889 bei der Deutschen Kolonialgesellschaft Berlin)*, Pietermaritzburg: University of Natal Press, first published in 1889.
- Sanders, E.R., 1969, 'The Hamitic hypothesis: Its origin and functions in time perspective', *Journal of African History*, 10, 4, 521-532.
- Seidlmayer, S., 1998, 'Van het ontstaan van de staat tot de 2e dynastie', in: Schulz, R., & Seidel, M., eds., *Egypte: Het land van de farao's*, Köln: Könemann, pp. 24-40; Dutch translation of: *Ägypten: Die Welt der Pharaonen*, Köln: Könemann, 1997.
- Seligman, C.G., 1913, 'Some aspects of the Hamitic problem in the Anglo-Egyptian Sudan', *Journal of the Royal Anthropological Institute of Great Britain and Ireland*, 43: 593-705.
- Shreeve, J., 1996, *The Neandertal enigma?: Solving the mystery of modern human origins*, New York: Morrow/Viking.
- Strong, J.H., 1989, *A concise dictionary of the words in the Hebrew Bible: With their renderings in the*

- authorized English version*, originally published New York/Cincinnati: The Methodist Book Concern; reprinted with original page numbers in: Strong, J.H., 1989, *Strong's exhaustive concordance: Compact edition*, Grand Rapids: Baker Book House; reprint of the unspecified late-19th century edition.
- Tucker, T.G., 1985, *Etymological dictionary of Latin*, Chicago: Ares.
- van Binsbergen, W.M.J., 1992b, *Tears of Rain: Ethnicity and history in western central Zambia*, London/Boston: Kegan Paul International.
- van Binsbergen, W.M.J., 1996a, 'Black Athena and Africa's contribution to global cultural history', *Quest – Philosophical Discussions: An International African Journal of Philosophy*, 9, 2 & 10, 1: 100-137.
- van Binsbergen, W.M.J., 1996b, 'Time, space and history in African divination and board-games', in: Tiemersma, D., & Oosterling, H.A.F., eds., *Time and temporality in intercultural perspective: Studies presented to Heinz Kimmerle*, Amsterdam: Rodopi, pp. 105-125.
- van Binsbergen, W.M.J., 1997b, 'Black Athena Ten Years After: Towards a constructive re-assessment', in: van Binsbergen, W.M.J., ed., *Black Athena: Ten Years After*, Hoofddorp: Dutch Archaeological and Historical Society, special issue, *Talanta: Proceedings of the Dutch Archaeological and Historical Society*, vols. 28-29, 1996-97, pp. 11-64.
- van Binsbergen, W.M.J., 1997c, 'Rethinking Africa's contribution to global cultural history: Lessons from a comparative historical analysis of mankala board-games and geomantic divination', in: van Binsbergen, W.M.J., ed., *Black Athena: Ten Years After*, Hoofddorp: Dutch Archaeological and Historical Society, special issue, *Talanta: Proceedings of the Dutch Archaeological and Historical Society*, vols 28-29, 1996-97, pp. 221-254.
- van Binsbergen, W.M.J., forthcoming (a), *Global bee flight: Sub-Saharan Africa, Ancient Egypt, and the World – Beyond the Black Athena thesis*.
- van Binsbergen, W.M.J., forthcoming (c), *Religion and social organisation in north-western Tunisia, volume I: Kinship, spatiality, and segmentation, volume II: Cults of the land, and Islam*.
- van Binsbergen, W.M.J., in press, *Intercultural encounters: African, anthropological and historical lessons towards a philosophy of interculturality*, Berlin: LIT.
- von Sicard, H., 1952, *Ngoma lungundu: Eine Afrikanische Bundeslade*, Studia Ethnographica Upsaliensis, V, Uppsala: Universitet Uppsala.
- von Sicard, H., 1968-1969, 'Luwe und verwandte mythische Gestalten', *Anthropos*, 63-64: 665-737.
- Ward, W.A., 1978, *The four Egyptian homographic roots b-3: Etymological and Egypto-Semitic studies*, Rome: Biblical Institute Press, Studia Pohl, Series Maior 6.
- Wendt, H., 1974, 'Onderfamilie jachtluipaarden', in: Grzimek, B., ed., *Over katten, leeuwen en tijgers*, Utrecht/Antwerpen: Spectrum, pp. 124-135, Dutch translation of an excerpt from: *Grzimek's Tierleben: Enzyklopädie des Tierreiches*, Zürich: Kindler, 1970.
- Whitfield, P., ed., 1984, *Encyclopedie van het dierenrijk: Alle gewervelde dieren in woord en beeld*, Dutch edition under editorial supervision of: van den Bergh, L., Dekkers, M., Hillenius, D., & Sykora, C., no place, Areopagus, translation of: *Longman illustrated animal encyclopedia*, Harlow: Longman.
- Williams, C.A.S., 1974, *Chinese symbolism and art motifs: An alphabetical compendium of antique legends and beliefs, as reflected in the manners and customs of the Chinese*, Edison (NJ): Castle, third revised edition, first published in 1941, Shanghai: Kelly & Walsh.
- Worsley, P.M., 1956, 'Emile Durkheim's theory of knowledge', *Sociological Review*, 4: 47-62.
- Worsley, P.M., 1968, 'Groote Eylandt totemism and "le totémisme aujourd'hui"', in: Leach, E.R., ed., *The Structural study of myth and totemism*, second edition, London: Tavistock Publications, pp. 141-159.
- Zachernuk, P.S., 1994, 'Of origins and colonial order: Southern Nigerian historians and the "Hamitic hypothesis", c.1870-1970', *Journal of African History*, 35, 3: 427-455.