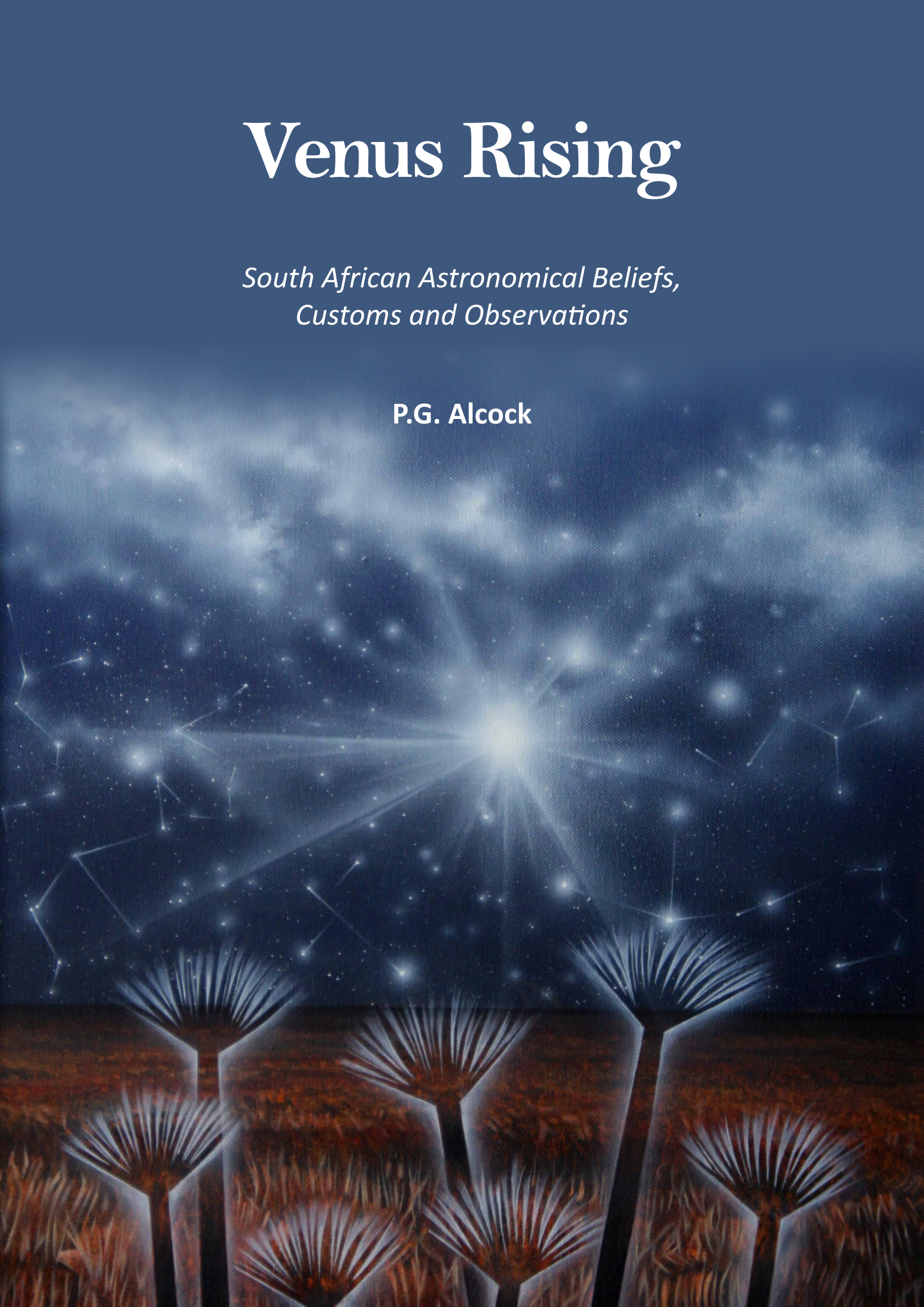
Venus Rising

South African Astronomical Beliefs, Customs and Observations

P.G. Alcock



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From **Silimela Son of Makinana**

Summon the nations, let's apportion the stars:
Let the stars be apportioned.
You Sotho,
Take Canopus,
To share with the Tswana and Chopi,
And all of those nations in loin cloths.
You of KwaZulu,
Take Orion's Belt,
To share with the Swazi, the Chopi and Shangaan,
As well as uncircumcised nations.
You Britons, take Venus,
To divide with the Germans and Boers,
Though you are folk who don't know how to share.
We'll divide up the Pleiades, we peoples of Phalo,
That great group of stars,
For they're stars for counting off years,
For counting the years of manhood,
For counting the years of manhood,
The years of manhood.
I disappear!

Samuel Edward Krune Mqhayi, Xhosa poet (1875–1945).
Source: Opland (1992); Eve (2003).

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A book on South African indigenous knowledge, written by the present author, was published by the South African Weather Service in 2010. The book is entitled: *Rainbows in the Mist: Indigenous Weather Knowledge, Beliefs and Folklore in South Africa*. This book is a companion volume to the current publication, which was funded by the Department of Science and Technology in Pretoria, with the project being administered via North-West University. The author is most grateful to both agencies for their financial and logistical support. Jo Marwick played a major role in the book's reaching fruition, in terms of her dedicated editing and layout skills. Finally, I must thank my Louise for giving me the space needed to write this book. I owe her much more than I can ever repay.

Neither the copyright holder of a translated extract from the Xhosa poem: Silimela Son of Makinana (Opland, 1992; Eve, 2003), nor the copyright holder of the poem: Ode to Nkwenkweland (Samuelson, 1974) could be traced, despite sustained efforts. Apologies are tendered should any infringement of copyright have occurred, which will be rectified in subsequent impressions of the book.

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CHAPTER 1

Preamble

African celestial beliefs, with a few exceptions, have not received much academic attention in South Africa to-date. Possibly the first journal paper of direct relevance on southern African indigenous sky knowledge or social memory was written by Hammond Tooke in 1888. More recent material concerns an extremely brief summary of the subject by Fraser (1995), which was followed by Warner (1996) in the form of a broad overview. A more detailed analysis was undertaken by Snedegar (2006). The present publication is the first full-length book to be written on the subject. No book, however, can claim to be a complete treatment of any particular topic, where this volume is no exception. The material in the book will be enlarged upon as further information comes to light. That is as it should be: it is known as research. Three modern terms will be encountered in the overseas literature on indigenous celestial knowledge. These are (a) archaeoastronomy (the study of astronomical topics or features relating to the past, i.e. historical concepts, physical structures and artefacts), and (b) ethnoastronomy or the examination of indigenous astronomical knowledge. A third (overall) term is cultural astronomy, which encompasses both archaeoastronomy and ethnoastronomy. Cultural astronomy refers to the study of the role of astronomical knowledge, beliefs and theories in human behaviour and life experience. These terms will be found, for instance, in Holbrook, Medupe and Urama (2008). It is quite possible therefore to speak of African cultural astronomy, or in this case, South African cultural astronomy.

Sources of data for the book were mainly the old anthropological works and journal papers, with some additional oral information. The latter, now a fast-fading data-stream, is both expensive and very time consuming to track down and record. It is regrettable that pertinent oral information has been allowed to 'simply wither away, without protest'. Not much can be done about this loss, except to accelerate efforts to record what oral information still exists. It is hoped that the book will serve as a catalyst for this purpose. A word of caution must be sounded, nonetheless. Some contemporary information, unfortunately, is only half-remembered and is thus not fully reliable.

It is encouraging to note that selected astronomical topics are now covered in part of the South African school syllabus. Some of the material in *Venus Rising: South African Astronomical Beliefs, Customs and Observations* could be used to stimulate a deeper interest in the stars at schools, and in indigenous knowledge. It has been stated on several occasions that African school children, especially those in the lower classes, will more readily identify with scientific concepts presented in their own language, or with familiar cultural attributes. Stargazing tours, too (now gaining in popularity) would benefit from an introduction to African celestial knowledge. It follows that indigenous stellar data could likewise be incorporated in introductory astronomy courses at South African

universities. It is a fact that virtually all the standard astronomical texts at one time were mainly concerned with the northern hemisphere. Any endeavours, therefore, to describe astronomical material relating to the southern hemisphere should be welcomed.

Venus Rising deals with the Sun, the Moon, the planets, the stars, comets and other occurrences as well as the role of these bodies in daily and seasonal observations, and in traditional ceremonies. A number of South African poems and place names are listed, which in one way or another are linked to the heavens. Also included are riddles and similar expressions which are associated with the celestial sphere. Some material is provided on relevant stories and songs. The appendices contain details *inter alia* of South African and other celestial websites, plus contact information for South African observatories and additional sources of astronomical data. Several non-technical South African astronomy books are listed for the reader's interest. It is essential to remember that astronomy is a complex science, and that simple explanations only, are advanced in this book. Those requiring an in-depth analysis as well as diagrams are referred to standard astronomy texts. A particularly useful source of information is the *Sky Guide Africa South*, which is published annually by the Astronomical Society of Southern Africa.

The South African peoples addressed in the text are the following. The term 'South Africa' (as used in the text) may refer to the country itself and to the geographic region.

- The Khoikhoi;
- The Lemba;
- The Ndebele;
- The Northern Sotho;
- The San;
- The Southern Sotho;
- The Swazi;
- The Tsonga;
- The Tswana;
- The Venda;
- The Xhosa;
- The Zulu.

Readers will find reference in the book to the terms *group* and *sub-group*, instead of 'tribe', 'sub-tribe' and 'clan'. These terms are no longer in common use in an anthropological sense, and are the subject of some controversy. It is acknowledged, nevertheless, that group and sub-group are somewhat clumsy words, and can be interpreted in different ways. It is now customary to refer to a particular group or sub-group in the singular, i.e. the Xhosa, rather than in the plural.

The next point of discussion concerns the Khoikhoi. Other terms for the people who were once called *Hottentots* are Khoi-khoin, Khoi, Khoekhoe or Khoekhoen. The latter two (more modern) terms are currently preferred, mainly on linguistic grounds. The present author, however, decided to use the word Khoikhoi to accommodate readers unfamiliar with anthropological texts, and who may wish to read the older literature. Khoi-khoin originally meant 'men of men', i.e. men *par excellence* (specifically people of pure race) in terms of which the Khoikhoi distinguished themselves from other people (Schapera,

1965). A generally accepted (but not unanimous) viewpoint is that the name *Hottentot* was derived from the Dutch word *Hüttentüt* meaning 'stammerer' or 'stutterer', which reflected early Dutch perceptions of the 'clicks' which are a distinctive feature of the Khoikhoi language. Kidd (1904) citing Hahn (1881) defines the Hottentots (Khoikhoi) as including the **Korana** or **Koranna**, the **Namaqua (Nama)** and the **Qriqua**. Schapera (1933; 1956) refers to four main groups, namely, the **Cape Hottentots**, the **Eastern Hottentots**, the **Korana** and the **Naman (Nama)**. Seligman (1966), in contrast, divides the Hottentots into the **old Cape Hottentots**, the **Gonaqua**, the **Korana** and the **Naman (Nama)**.

More detailed information on the Cape Hottentots was provided by Schapera (1965). See also Stow (1905). The **Goringhaiqua** or **Goringhaikona** and the **Kora** or **Gorachouqua** were resident in the environs of the Cape Peninsula (Schapera, 1965). The **Kochoqua** roamed the coastal area between Table Mountain and Saldanha Bay, and were the strongest of the local groups at the time of Dutch settlement in 1652. Beyond the Kochoqua and extending to the Olifants River were the **Little Grigriqua** or **Chariguriqua**. To the north of the Olifants River were the **Great Grigriqua** who bordered on the southernmost group of Nama. The **Chainoqua** were found to the east of the Kochoqua, while further to the east and south, in the Caledon district, were the **Hessequa**. To the north east of the latter, probably in the Worcester district, lived the **Hancumqua**, with a few lesser groups as their neighbours. Further afield were the **Attaqua** resident between Mossel Bay and the vicinity of George. Beyond them were the **Outeniqua**, after whom the Outeniqua Mountains were named.

The division between the Cape Hottentots and the Eastern Hottentots is problematic to define (Schapera, 1965). The Eastern Hottentots included, amongst others, the **Inqua** who were once probably resident in the Aberdeen district, the **Damaqua** (found between the Gamtoos and Swartkops rivers), and the **Gonaqua** who were apparently of little significance at first. The Gonaqua later became the most powerful of the Hottentot groups in the east, and then lived in an area extending from the Sundays River to the Great Fish River.

A few of the Cape Hottentots moved inland, away from white influence (Schapera, 1965). One such group was the Kora or Gorachouqua who are said to have formed the nucleus of the **Korana** or **!Kora**. This group eventually settled at Bethany under the influence of the Berlin Mission, but later as a result of warfare were destroyed as a sovereign people. (Some historians dispute this migratory sequence of events, however.) Another Cape Hottentot group, the Grigriqua or Chariguriqua, after 'receiving a considerable infiltration of white blood', moved northwards to Kamiesberg in Little Namaqualand. The Grigriqua were joined there by other 'half-breed Hottentots' or *Basters* (Dutch for Bastards), as these people began to call themselves. This group subsequently moved to the Middle Orange River Valley, where they became known as the **Griqua**. The Namaqua (Nama) were regarded at an early stage as consisting mainly of the **Little Namaqua**, resident south of the Orange River in Little Namaqualand; and the **Great Namaqua** living north of the Orange River in Namibia. The Great Namaqua were subdivided into seven groups (*!haus*), with one or two minor offshoots. Some Khoikhoi, forming part of the general exodus away from white authority, entered Namibia in the early 19th century. These groups were largely drawn from the Little Namaqua and had previously received an infusion of white blood.

The general culture of such Khoikhoi had been considerably influenced by the Dutch in particular, with many of the men speaking that language. These Khoikhoi became known as the **Orlams** and consisted of five main groups (Schapera, 1965). A more current analysis of Nama and related Khoikhoi groups in Namibia can be found in Budack (1986).

Note that the name 'Hottentots' is now one of abuse, and is not currently acceptable. The most intensively studied of the Khoikhoi were the Nama, to some extent in South Africa but especially in Namibia. Less is reliably known about the Cape and Eastern Khoikhoi whose culture began to disintegrate following the arrival of the whites at the Cape in April 1652 (Schapera, 1933; 1965). Khoikhoi mythology is thus contested terrain where certainty is simply not possible: a point emphasized by Schapera (1965). Some key sources (books) *inter alia* on Khoikhoi mythology include Hahn (1881); Schapera (1933; 1965); Carstens (1975), Barnard (1992), and to a lesser extent Hodgson (1982). It should be explained here that the first edition of Schapera (1965) was published in 1930, and was reprinted in 1951, 1960, 1963 and again in 1965. Readers should be aware that the language described as Nama in the older texts is now known as Namibian Khoekhoe or as Khoekhoegowab in the language itself.

The Khoikhoi lived in larger communities than the San, and with a more complex system of social organization (Schapera, 1965). Each primary Khoikhoi group, consisting of several smaller local groups, was scattered over a given territory. These local groups, under their respective 'captain' or headman, were largely autonomous. Every primary Cape Khoikhoi group had a chief (*kouqui* or *khoeque*) whose office was hereditary, and which passed from the father to the eldest son, or to the nearest male relative (i.e. a brother or the brother's son). The functions of the chief were seemingly purely political in nature. The chief presided over a council consisting of all the captains of the local groups, and which was the real governing body of a specific primary group (the Hessequa for example). The chief was accorded considerable respect, depending on his strength of character, although there were evidently no special religious or magical ceremonies associated with his office. Every Nama group, in turn, had its own hereditary chief (*gao-aob*), known more latterly by his Dutch title of *kapitein*. The chief, like his Cape Khoikhoi counterpart, was usually obliged to follow the wishes of his councillors. The chief was most often the richest man, but was not otherwise differentiated from his fellows, with some exceptions. His hut for instance was the largest in the settlement, and he was entitled to other minor privileges befitting his status. The chief, in co-operation with his council, could impose orders on the people for the general good, which as a rule, were implicitly obeyed (Schapera, 1965). The San, with this background in mind, will now be discussed.

There is an unresolved debate on the use of *San* or *Bushman*, with a number of writers preferring the former, and others the latter. Both names have certain negative undertones. San has been used here. Those objecting to this terminology should simply substitute the word 'Bushman' for 'San'. The modern procedure is to refer to the Khoisan or Khoesan (Khoi + San), primarily but not only on a linguistic basis, to differentiate peoples whose languages were or are part of a broad linguistic family, and who can be distinguished in a linguistic sense from the Bantu-speaking peoples in southern Africa. Bantu, both the people and their language group, is a somewhat older generic term for Africans predominantly

resident in central and southern Africa (Seligman, 1966). Another unifying element concerning the Khoikhoi and the San is a culture which had marked similarities. Some of their modern-day descendants, nevertheless, reject the term 'Khoisan' or 'Khoesan' as inaccurate and demeaning. A general historical distinction can perhaps be drawn between the San as hunter-gatherers and the Khoikhoi as pastoralists keeping cattle and sheep, although such differences were not absolute (Schapera, 1965). One important difference was that the Khoikhoi smelted metal ores to make implements, weapons and ornaments, which the San never learned to do. The Khoikhoi and the San were not isolated from each other, and interacted in many spheres of life. Interaction also took place with others in southern Africa.

Readers are advised that the literature on the San is vast, and growing (**refer to Appendix E**). San languages, as one example, have and are receiving sustained research attention, resulting in certain cases in a re-assessment of linguistic definitions and categories. Such issues are far too complex (and confusing) to address in a book about celestial matters. Various interpretations, likewise, are now being offered on hidden or underlying themes in a number of San narratives or stories, which again cannot be examined in any detail in this volume. The information provided on the San (ranging from the /Xam to the !O Kung of southern Angola) is necessarily selective, due to space and other constraints.

The San were once widely scattered over much of southern Africa (Schapera, 1965). The San in many cases were subsequently killed, or died out, or were expelled or assimilated into various African groups. It is only really in parts of Botswana, Namibia and perhaps Angola that the San, up to a given historical point, managed to retain their old ways and separate identity. This stage, too, has now come and virtually gone. It is, however, the historical distribution of the San which concerns us here. The San were divided into many different groups each with their own particular language or dialect and with a name (Schapera, 1965). The African people, likewise, had certain names for the San. Dorothea Bleek, whom we shall meet a little later, was the first to divide the San into three main groups on a linguistic and geographic basis. These were the Northern, Central and Southern groups. This inventory was amended by Schapera (1965). The list of San groups explained below is somewhat dated, but is directly linked to the San discussed by Schapera (1965) and other writers who derived their information from the older literature. It was therefore decided to retain the present classification system, rather than to use one or two newer versions which may themselves be the subject of debate, and hence problematic. A major source of contention is the spelling of San names.

The Northern group of San are mainly resident in north eastern Namibia extending into Botswana and Angola (Schapera, 1965). The most prominent of the Northern San are the **!Khũ** or **!Kuŋ**, better known as the **!Kung**. The name of this large group simply means 'persons' or 'people'. The !Kung occupy the entire north eastern part of Namibia stretching from around Grootfontein to the Okavango area and Lake Ngami. The !Kung can be divided into four main sub-groups, all of whom speak the same language and who have identical customs and beliefs. The !Kung are often referred to in the contemporary literature as the **Ju/'hoansi** (spelt in various ways). The policy in this volume has been to use either term according to the specified source. Other San found in southern Angola

speak the same language as the !Kung and call themselves by the same name, or sometimes as the **!gei !kũ** (‘red people’) or **!o !kũ** (‘forest people’). The locality of the people under discussion extends north to about latitude 15ºS, west to a longitude of approximately 16ºE, and east as far as the north western border of Zambia. Schapera referred to these !Kung as the **!O Kung** (also spelt as !O !Kung), a convention adopted in this book. To the west and south west of the !Kung in Namibia are the **Hei-//om** or **Heikum (Hai//om)** or ‘tree-sleeping people’ (i.e. those who sleep under trees) resident in a large area stretching from north of the Etosha Pan and the Grootfontein and Outjo districts, to near Rehoboth in the south. Schapera at his time of writing observed that all traces of the old way of life of the Hei-//om had probably disappeared, with the exception of those in the vicinity of Etosha Pan. Between Sandfontein (just north of the Orange River) and Gam further north are the **//Kau //en**. These people were known as the **≠aukwe** by the Central San and as the **≠ausan** by the Nama, but are commonly referred to as the **Auen** or **≠Auin**. Schapera (1965) noted that the Auen still retained their original way of life to a considerable extent. Other variants of the names of the Auen are ≠Au//eisi and ≠Kao//’ae (Guenther, 1999) as well as /Dau//kei (Guenther, 1986); and ≠ãũ//ei (Silberbauer, 1981).

The Central group of San virtually all live in Botswana, particularly in the northern and central Kalahari (Schapera, 1965). In close proximity to the Auen are the **//aikwe** who were originally known by the Auen as the **Naron** (‘insignificant people’). A more recent term for the Naron is the **Nharo**. Silberbauer (1981), in turn, states that the Nharo should more correctly be referred to by their own name for themselves, which is the ‘People of the Calcrete Outcrop’ or **G≠eikhwena**. The Naron reside in an area extending from Sandfontein to Ghanzi in the north east and Okwa in the south east. Further to the north and east up to Lake Ngami, and closely related to the Naron, are the **Tsaukwe**, **Tsonokwe**, **≠amkwe** and **!giŋkwe**, who including the Naron, are collectively referred to as the **K”am-ka Kwe** or ‘Mouth’s people’. Further away in the wetland region stretching from Lake Ngami and Lake Linyati (Linyati Swamp) in the south, to the Okavango Delta at Andara in the north, are the **Bugakwe**, **≠garikwe** and **≠gokwe**, who are collectively known as the ‘river people’ or **/tannekwe**. To the north and east of the latter, in the sandy plains between the Okavango River and the Kwando (Cuando) River, are the **Hukwe** (now known as the **Kxoe** or **Kwengo**). Still further to the east, between the Lower Kwando River and the Zambezi River, and probably extending into north western Zambia, are the **Galikwe**, often known by their African name of **MaDennassena**. South east of Lake Ngami, in and around the Hainaveld, are the **Tserekwe**, **≠dukwe** and **≠kabakwe**. More to the east, along the Botletle River and the south eastern Okavango Basin, are the **Ohekwe**, frequently referred to by their Bantu-speaking neighbours as the **MaTete**. Closely related to the last-mentioned are the **MaHura** who live along the Lower Botletle River and Lake Kumadau, extending to the Makarikari Depression in the east. In the Tati district along the eastern border of Botswana and extending into southern Zimbabwe, are the **Hiechware** (Hietshware) or ‘people of the open country’ who are commonly referred to by the Tswana as the **MaSarwa**, the Tswana term for the San generally. (Note that prefixes for African names, although retained here for historical purposes, are now usually omitted: hence for instance Sarwa instead of MaSarwa.) Another San group resides in the coastal province of Mossamedes (Moçâmedes: currently Namibe) in south western Angola, between the Capondo River in the north and the Korocas (now presumably Coroca) River in the south.

These San are described by their African names as the **BaKwando**, **BaKwisso**, **BaKubai** and **BaKorocas**. There are (or were) a few isolated San groups in the Namib Desert and adjacent districts in Namibia. Their language was reported to be Nama and they were sometimes perceived to be poverty-stricken Khoikhoi who had lost all their cattle, and who had assumed a San-style way of life involving hunting and gathering. There were five such groups. The **/geinin** lived in the Namib Desert proper between Lüderitz and Conception Bay, with the **//obanen** resident around the confluence of the Orange and Great Fish rivers. The **/koma**, who seemed to have completely disappeared by the late 1920s, lived on the Swartrand and Tiras plateaus. The **≠ganin**, in the area between Naauwkluft (the Naukluft Mountains) and Grootfontein South, according to Schapera (1965), were almost non-existent. The **/huinin**, represented by a few families, lived in the southern extremity of the Huib-Hoch Plateau somewhat north of the Orange River. A more contemporary discussion of the ethnic and linguistic groupings of the San of the northern Kalahari can be found in Cashdan (1986).

The Southern group of San were found mainly to the south of the Tropic of Capricorn (Schapera, 1965). Early records in the Cape dating to the late 1600s make reference *inter alia* to *Bosjesmans*, *Bosmanekens* and *Bosiesmans* which translated from the Dutch means 'people of the wilderness' or 'people of the bush'. The Khoikhoi name for the Bushman was San, which Hahn (1881) interpreted as 'aborigines, or settlers proper'. Other names used in early Cape documents were *Sunqua*, *Saunqua* and *Sonqua* which were all linguistic variants of *Sa(n)qua* (the masculine plural form). The best-known San were the **/xam-ka !ke** or **/xam** or **/Xam**, once referred to as the Cape Bushman (Schapera, 1965). The /Xam were resident in the greater part of the old Cape Province south of the Orange River. The /Xam, as a people, no longer exist. Another group, the **//η !ke** or 'home people' of Gordonia and Griqualand West, were in the same situation by or around the late 1920s. Other San resident in the Free State and Lesotho also no longer exist as a people (Schapera, 1965). The **//Xegwi** living in or around the KwaZulu-Natal Drakensberg, and extending into the eastern Cape, have long since been assimilated into African culture (F. Prins). Some //Xegwi are said to have moved in more recent times to the Chrissiesmeer (Lake Chrissie) area north east of Ermelo in Mpumalanga Province, but have largely been assimilated by their Swazi neighbours. The Southern group includes two peoples in south eastern Namibia, namely: the **/auni** or **/'Auni** in the environs of the Lower Nossob River Valley; and the **/nu//en** (known by the Nama as the **/nusan**) in the Upper Nossob River Valley and in the Auhoup Valley. There were certain other San in southern Botswana who had no special name for themselves and who were known locally as the **MaSarwa** (Schapera, 1965). Schapera also referred to the Koon or !Xoon (better known as the **!Xõ**) or !Kõ (!ko) who are seemingly a northern branch of the /nu//en. The !Xõ live in eastern Namibia and in greater numbers across the border in western Botswana. The !Xõ are southern neighbours of the Naron.

The number of people forming a San (hunting) band varied considerably (Schapera, 1965). A band, simplistically expressed, was made up of families and sometimes relatives by marriage and could include compatible individuals. A feature of San life was that members of the same band could be scattered over a broad area across their hunting territory, and thus not resident in one encampment. Some of the older writers spoke of /Xam bands

of 100–150 people, although there were also much smaller bands. In more recent times there were seldom more than three or four /Xam families living together. The bands in the Namib Desert consisted of only a few individuals, much like the Hiechware where a band rarely had more than about 20 people. The !O Kung, too, lived in small bands. Those San who had managed to retain their own mode of life to some degree had larger bands, although their numbers fluctuated according to seasonal and other circumstances. These San included the Naron, Auen, !Kung and /tannekwe. In the small family groups of the /Xam, Namib San, Hiechware and !O Kung, deference was made to the head or patriarch of the group. His authority, nevertheless, was very restricted. The common affairs of the band such as hunting parties and trekking were regulated by the skilled hunters and the older, more experienced men. Matters were arranged somewhat differently by the San living in larger bands. Each band had a recognized chief (*//exa; //exaba; gao-aob* or *gei-khoib*). The latter two terms were of Khoikhoi origin. The chief was essentially a leader rather than a ruler, although he fulfilled specific functions in certain San groups (Schapera, 1965). The described scenario probably refers to the situation up to the first half of the 20th century. Several changes in settlement patterns have taken place since then, with many San having adopted a virtually sedentary lifestyle. A further point regarding the !Kung is that Lee (1984), working in western Botswana (the Dobe area) near the Namibian border in the 1960s, could find no evidence of !Kung headmen or chiefs who held political power. There were leaders (*not* headmen) who had considerable influence on group decisions, although they were modest and only suggested a particular course of action. These leaders were not hereditary and were frequently outsiders who had become assimilated into the core family group of a camp (settlement) by marriage. The G/wi (discussed later) also do not have any chiefs (Silberbauer, 1981).

There is some confusion in the anthropological literature where the Tsonga are referred to as the Shangaan (Tsonga), the Tsonga (Shangaan), or the Tsonga only. The Shangana or Shangaan are an important sub-group of the Tsonga, although the differences between the two are rarely explained. The convention adopted here was to use one or other term with caution, as per the relevant data source. The *Tsonga* (previously known as the *Thonga*) are resident in both South Africa and Mozambique, although mostly in the latter country. There are also the *Tembe-Thonga* (*amaThonga*), a sub-group who live in north eastern KwaZulu-Natal adjoining Swaziland and Mozambique. A new name, the *Mabudu-Tembe*, has been proposed for the *Tembe-Thonga* based on the latest historical research. The Sotho-speaking people of South Africa can be divided into three broad groups: (a) the Northern Sotho, (b) the Southern Sotho, and (c) the Western Sotho (known today as the Tswana and resident in both South Africa and Botswana). The information given in this book for the Xhosa refers to the Xhosa proper, rather than to one or more of the Xhosa-speaking groups. The distinction has, however, been made where relevant. Also of interest is that the Zulu, Xhosa, Swazi and Southern Ndebele people, and their languages, are collectively referred to as those of the Nguni group.

Readers who are not familiar with the many African groups in this country should consult the South Africa: the Official Gateway website. The website contains, amongst other things, maps showing the spatial distribution of the 11 official languages spoken in South Africa, and thus primary residential locality. See: http://www.southafrica.info/ess_info/

sa_glance/demographics/language.htm. Turning to slightly more technical issues, it is standard astronomical procedure to refer to the Sun, the Moon and the Earth in a title case manner, as indicated. This does not apply, of course, for direct quotations from bibliographic sources. A particular South African term which will be encountered in the book is *mealie* (singular) and *mealies* (plural), i.e. maize.

A word of warning must be sounded regarding the spelling of African names, which are sometimes problematic. Most of the anthropological literature consulted in writing this book refers to the first half of the 20th century, or even earlier. The language and spelling may well be archaic, and not in accordance with modern usage. Differing orthographies as well as dialects are a further hazard. Certain diacritical marks for a few Venda and BaLovedu (Lovedu) or BaLobedu (Lobedu) words have not been reproduced in the text. Some celestial terms are in a title case format, with others in a lower case format, according to the specified source. Errors in the original recording and transcription of the material are likewise a possibility, as indeed are mistakes made in identifying and naming certain stars. Another difficulty concerns attempts to link the precise timing of celestial events with somewhat fluctuating (non-western) indigenous calendars. It is evident, accordingly, that the dates or months reported in the text (as taken from the original source of information) may not necessarily be in agreement with astronomical, climatological or agrarian reality. A related problem is that observations of the rising of designated stars may be confounded, for a while, by hills which obscure the horizon.

It must be emphasized that the discussion in the book refers only to the naked eye. Also of significance is that the skies in the old days were observed mainly in the early evening, with the people subsequently retiring to sleep in their dwellings. Further observation of the skies occurred in the early morning when the people awoke to go about their business. It is possibly only the San, and perhaps the Khoikhoi, who may have viewed the heavens at other times of the night. The reader, in this regard, must be aware of the fact that the night sky turns 90° in about six hours, which means that the time of observation should be specified whenever possible. This significant astronomical qualification, unfortunately, is seldom made in the anthropological literature. The degree of celestial precision in South Africa generally, was probably of a lower order than say, in Polynesia and Micronesia where the heavenly bodies (in conjunction with the direction of ocean currents, swells and waves as well as prevailing winds and other environmental indicators) were used for inter-island navigation (Golson, 1972). Any errors in navigation or adverse weather conditions were quite simply life-threatening at best, or tragically fatal. Useful information on celestial intricacy in North Africa, specifically for the Borana of northern Kenya and southern Ethiopia, was published *inter alia* by Doyle (1986); Ruggles (1987), Bassi (1988) as well as Doyle and Frank (1997).

Two approaches for the presentation of the data are possible in this book. The first is to examine the information as a fixed cultural set, for instance, all the Xhosa stars and planets and then all the Zulu stars and planets. The second method is to discuss the data in terms of specific celestial bodies, for example, the Pleiades followed by Venus. Both procedures have their merits. It was decided to preserve the cultural integrity of the information, albeit at the cost of some repetition. It is necessary to bear in mind that the various groups in

southern Africa are considerably diverse and occupy (or occupied) different localities as well as landscapes. It is evident, notwithstanding the different peoples in southern Africa, that the same stars and planets, with a few exceptions, were known and observed. It is quite possible that there were other heavenly bodies of relevance, although this knowledge has been lost, or was never recorded. It is the opinion of the present author that the latter scenario may be more common than is generally believed to be the case. Also important is the extent to which indigenous celestial knowledge was contaminated or destroyed by the arrival of the early missionaries. It is almost impossible to determine the degree of influence exerted by the missionaries, although clearly, there are instances where original concepts of the heavens were modified, or perhaps replaced in their entirety. An associated problem is that the antiquity of the celestial information varies, and sometimes seems to be a mixture of 'old' knowledge and more recent data.

It is difficult to say to what extent a belief in the traditional significance of the stars still prevails in South Africa. The same is probably true for celestial markers of the months and the seasons. Perhaps, in previous times, the most important point is that Africans did indeed seek meaning in the early evening or morning sky. There are also those who maintain that specific alignments of rock structures, orientated in the direction of some heavenly bodies, once existed in South Africa. This is a debatable issue which is examined in the book. (South) African astronomical beliefs, customs and observations, in essence, are worthy of sustained research attention and analysis, which should be followed by a wider dissemination of the resultant products to society in general. This volume is thus a necessary first step in that direction. The book is a beginning, but not an end. One useful avenue of investigation would be to compare the information in this volume with other celestial beliefs in Africa, to determine both differences and similarities.

Note:
Standard scientific notation has been applied in the text including the use of 10^6 to denote 1 000 000.

CHAPTER 2

Heaven including the Sun

A discussion of primary African deities and creation

Detailed information is seldom available on the primary African deities in South Africa. A second problem is that the teachings of the missionaries were often in conflict with traditional religious beliefs. One result has been that any real knowledge of the creator has virtually died out, or has become confused with the Christian God. Hammond-Tooke (1993) confirmed that the concept of a 'Supreme Being' or 'High God' who was closely associated with the sky was not well developed in long-established African thought. The workings of such a deity were so great and his abode so remote that man had no possible comprehension or understanding thereof. This god was a vague and distant being who created the world and everything in it, but who was thereafter disinterested in his handiwork. It is unclear whether 'the world' also refers to the Moon, the Sun and the stars, although it can sometimes be inferred that this was so. Virtually nothing was known about the origin of the heavenly bodies and the sky. Prayers were not often addressed directly to the creator, albeit with some exceptions. It was the ancestral spirits to whom the people turned in times of need, or for comfort. The ancestral spirits inhabited the unseen world, and were nearer to the creator. The ancestral spirits were, at times, the medium of approach between the living and the creator, although this procedure was uncommon. Some African groups believed that the creator was responsible for natural events, particularly those of a dangerous and majestic variety, for instance, storms, floods and droughts (Hammond-Tooke, 1993; Eiselen and Schapera, 1966). Readers should bear in mind, before proceeding, that the anthropological descriptions of the supreme being and creation can sometimes be confusing and contradictory.

The San

The first religious beliefs to be considered in this chapter are those of the San (beginning with the /Xam) and then the Khoikhoi. It will become apparent that there were a number of similarities and also differences regarding San and Khoikhoi concepts.

The Sun, the Moon and some stars were once people according to /Xam beliefs (Hollmann, 2007; Hewitt, 2008). At that stage the 'First Bushmen' or *!xwe:-/na-se!ke* or the 'first-there-sitting-people' lived alongside a wide range of species of animal-people (James, 2001). The animal-people had animal names and certain animal characteristics, but were human in the sense that they spoke and associated with each other, and with the First Bushmen. The animal-people also had human behavioural patterns. The First Bushmen were not yet true Bushmen or San in terms of the /Xam way of life, and were somewhat lacking in the understanding of matters. These two categories of people, the First Bushmen and the animal-people, were referred to by the /Xam as the people of the Early Race. The Early

Race lived without customs and did not follow certain norms including those relating to marriage, family relationships, sharing and eating. Marriages, for example, could be between different species of animals. James observed that there was another category of people who lived with the Early Race, and who were neither First Bushmen nor animal-people. This third group had unusual non-human properties. One instance is that of the Sun (James, 2001); and also the Moon (Wessels, 2008). An important /Xam feature of the heavens was that such entities had anthropomorphic characteristics (i.e. were credited with human thoughts and emotions) (Hollmann, 2007). All the various categories of people lived at a time when the natural order of things had not been established and strange events could occur (James, 2001). People could and did intervene in the natural world to change matters to suit themselves. An example is discussed later in the chapter where the Sun is thrown into the sky. A major change took place at a certain point when this unstable combination of groups altered, with the animal-people becoming true animals, and the First Bushmen beginning to live as the 'proper Bushmen' did. Part of the old order, however, remained (James, 2001). The /Xam did not claim genetic descent from the First Bushmen (James, 2001). The ancestral links between the two were evidently cultural, territorial and perhaps spiritual, where the /Xam believed that they had taken over the land from the First Bushmen, after these early people had all died out (James, 2001).

Directly linked to the change from the old order of things to the new (and current) order were the Anteater's laws (James, 2001). The laws were formulated by the Anteater [the Aardvark/Antbear or Erdvark (*Orycteropus afer*)] and were announced by the Lynx [the Caracal or Rooikat (*Felis caracal*)]. It was necessary to promulgate the new social laws to avoid inter-species rivalry, such as the 'mixed marriages' of carnivores and non-carnivores and the resulting confusion. It was essential for each species of animal-people to become proper animals of distinct kinds, and to establish boundaries between the species by fixing the two most important rules for the survival and reproduction of each species. These were who they would marry, and what they would eat. The laws were duly announced. The animal-people then acted as animals according to their particular species, and without any human characteristics. Each species married its own kind and ate certain foods. Less important rules concerned housing. The First Bushmen, as per the laws, lived as real (upgraded) people who *inter alia* cooked their food on a fire, stored drinking water in suitable vessels, and wore clothing. The First Bushmen lost their previous fellowship with the animals. Only a few animal species, one of which was the hare, retained a 'measure of humanness'. There was a bond, nevertheless, between the /Xam and the animals which had once been animal-people. The great change came about not because of natural causes or magic, but as a result of an unacceptable situation. These sensible laws were communicated to all, and were accepted as just and fitting. Clarity reigned (James, 2001). The world thus became a less difficult and more orderly place (Hewitt, 2008).

It is interesting to speculate why the Anteater was called upon to draw up the laws. This largish animal is described as being almost completely nocturnal and is usually seen on its own (Smithers, 1986). The animal moves long distances while foraging at night, with a journey of up to 15 km having been recorded. The animal has poor eyesight, but an acute sense of hearing and smell. Three types of excavations are made consisting of shallow diggings (not used as a place of refuge); more extensive and deeper burrows used for limited

periods, and permanent burrows with extensive tunnels and several entrances which are used by the animal on a regular basis. Females give birth in the latter category of burrow. Occupied burrows have swarms of small flies inside the entrance. The burrows provide shelter for a wide range of mammals, birds and reptiles. The animal under discussion has sharp claws backed by powerful limbs, and has a unique body shape amongst African mammals (Smithers, 1986). The essential components here are: (a) a frequently solitary animal (suggestive of being wise and not a 'chatterbox'), (b) nocturnal (uninterrupted thought processes), (c) well-travelled (has some knowledge of the wider world), (d) a good sense of hearing (indicative of a willingness to listen), (e) an association with a number of species (knowledge of other animals), and (f) an ability to dig at a prodigious rate (perhaps to uncover a submerged meaning). The particular characteristics of this animal would not have gone unnoticed by the sharp-eyed /Xam. This, as stated, is purely a theory. The caracal, in turn, is a solitary, nocturnal and secretive animal which feeds mainly on warm-blooded prey up to the size of an impala, as well as on ground-living birds (Smithers, 1986). The caracal is very fast moving when hunting and can catch live birds in the air when they are flushed out in the immediate proximity. The young of this predator are born in holes in the ground. There are similarities between the Anteater and the Lynx, at least in terms of certain aspects of animal behaviour. The Lynx is discussed again in **Chapter 5**, although in a celestial context.

A different version of the episodic separation of man and the animals was provided by Stow (1905), in respect of the /Xam living in the lower Gariep (Orange River) region. It is said that the remote forefathers of these San came out of a hole in the ground, at the roots of an enormous tree which covered a large part of the country. All kinds of animals, immediately thereafter, came swarming out in great numbers. The animals crushed, jostled and pushed each other in their haste to emerge from the hole. The flow of animals ceased once the Sun went down. The animals, which had the power of speech, remained quiet lying under and around the tree and later slept peacefully. The men sat at the base of the tree and were instructed not to make a fire during the night, until the Sun rose once more. The night grew dark and cold, and then bitterly cold. The men could not stand the extreme cold any longer, and despite the warning, attempted and then succeeded in making a fire. As soon as the flames began to shoot up, the startled animals sprang to their feet in terror. The animals rushed off panic-stricken to the mountains and the plains, losing their ability to speak in the process and forever fleeing from man. Only a few animals remained behind with the fire-makers. These animals became domesticated and were used to serve man. The great family of animals, unfortunately, was forever broken up and could never be reunited (Stow, 1905).

The most important figure in /Xam mythology was the Mantis or /Kaggen (/kaggen) who had several names (Schapera, 1965). /Kaggen had a sister, the Blue Crane or Bloukraanvoël (*Anthropoides paradiseus*). His other (unnamed) sister was the mother of his young pet springbok. /Kaggen also had a wife, /huntu!katt!katten or Dassie, the Rock Hyrax/Rock Rabbit or Dassie/Klipdas (*Procavia capensis*). She was the Mother of the Bees. /Kaggen and his wife had two sons and a daughter. Nothing is known about the daughter, whose name was Ywe-/nań-//kaintu. [Hewitt (2008) gives this daughter's name as K''we /nang //kain-tu.] One son was called !gaunu-ts'axau, where *!gaunu* refers

to the name of a star (**see Chapter 5**) and *ts'axau* means 'eye'. This son, according to one of the /Xam narratives or stories, was killed by baboons, but was restored to life by /Kaggen (see below). The younger son, /kaggen-ʘpwa or young Mantis, resembled his father. /Kaggen also had an adopted daughter !xo (the Porcupine or Ystervark: *Hystrix africaeaustralis*) whose real father was a monster (//khwai-hemm or the 'All-devourer'). The daughter did not live with her father for fear of being eaten. She was married to /kwammanga who was a mythical person seen in the rainbow. [Lewis-Williams (2002) indicated that /Kwammang-a (note different spelling) came from a family of meerkats or 'pawed-creatures'. The species is presumably the Suricate or Stokstertmeerkat (*Suricata suricatta*).] The pair had two children, /kwammanga-ʘpwa (the young /kwammanga) who was quiet and brave like his father; and /ni, the talkative Ichneumon or Mongoose, which according to Lewis-Williams (2002) is the Large Grey Mongoose or Groot Grysmuishond (*Herpestes ichneumon*). The latter played an important role *inter alia* by advising and assisting his grandfather (/Kaggen), and by gently reprimanding his grandfather for his misdeeds. All these individuals had once been men and women of the Early Race, but were now animals (Schapera, 1965).

/Kaggen had supernatural powers, although he was often rather stupid as well as being selfish, greedy, destructive and childish on occasion (Schapera, 1965). He was sometimes mischievous and vindictive (i.e. a trickster) and sometimes kind and compassionate. He was forever becoming involved in unnecessary fights due to his foolishness. /Kaggen (and his possessions) could speak, while his dreams came true. /Kaggen foretold the future when he and the rest of his family would become the animals whose names they now have. /Kaggen had creative powers. It is related that the /Xam were formerly antelope (the Springbok or *Antidorcas marsupialis*) which were changed by /Kaggen into people. It was also said that /Kaggen gave places their names, and gave the various species of antelope their particular colouring and names. He protected the antelope from harm by sometimes using a variety of tricks to distract the hunter from his prey, thereby saving the animal. He did this because he had made and loved the animals, and was prepared to die, although always coming back to life so that his animals lived. /Kaggen, to achieve this objective, could amongst other things transform himself into different animal forms (Schapera, 1965).

The Eland (previously *Taurotragus oryx*, now: *Tragelaphus oryx*) was /Kaggen's favourite antelope along with the Red Hartebeest or Rooihartebees (*Alcelaphus buselaphus*) (Hewitt, 2008). /Kaggen created both antelope, which were his 'things'. The two antelope were said to have unspecified magical powers. The identification of /Kaggen with the latter antelope appears to be due to the resemblance between the shape of the head and horns of the hartebeest and the shape of the head and antennae of the Mantis, the insect which was primarily associated with /Kaggen (Hewitt, 2008). This insect is possibly the Giant Mantid or Common Green Mantid (*Sphodromantis gastrica*), which is common across South Africa (Picker, Griffiths and Weaving, 2004). The insect is large, robust and bright green in colour. The sides of the abdomen may be mauve and yellow. This description is in agreement with /Kaggen's future form where he will have wings and fly when he is a 'little green thing' (Hewitt, 2008). Hewitt also refers to other /Xam accounts where /Kaggen will have yellow-green flesh. Barnard (1992) supports the viewpoint that /Kaggen is the /Xam

word for mantis and is also the name of the /Xam supernatural being. Barnard noted that the /Xam supernatural being has the form of a praying mantis, and that the name can refer to a mantis in a secular sense or the supernatural being, depending on the context in which it is used. The postulated link between /Kaggen and the antelope resulted in avoidance procedures whereby any woman with a young child would not eat meat from a hartebeest in case her child became endangered by /Kaggen (Hewitt, 2008). The mother would also not step over the head of a hartebeest since it was thought that /Kaggen would press down on the child's fontanelle. A protective charm was made from a small section of the foot of a hartebeest, which was threaded on a sinew and placed around the neck of the child. /Kaggen would smell the charm and not hurt the child. /Kaggen was thus feared (Hewitt, 2008). /Kaggen could bring the dead back to life as we have seen, and made the Moon (Schapera, 1965). The only celestial body directly connected with /Kaggen is the Moon, specifically the New Moon (Hewitt, 2008). The /Xam did not pray to /Kaggen, nor were any special ceremonies associated with him (Schapera, 1965). Readers should note that the trickster-god, who was both a protagonist (a central or role-playing character) and a god, is a common theme in San religious thought. The people could laugh at the mischievous antics of the former in an outrageous or whimsical story, but fear and respect the latter in reality. /Kaggen, while a trickster and a supernatural being, was not regarded by the /Xam as a creator-god (James, 2001). Further information about /Kaggen and related issues is available in Hewitt (2008).

Another supernatural (although impersonal) being was Rain or Water (!khwa). This being (Rain) was frequently represented as an animal (Schapera, 1965). One version is that of a bull who carried away a young maiden. A different representation is that of an eland which was shot by a man of the Early Race, with disastrous consequences. The being was more commonly thought of as an animal living in a waterhole (Schapera, 1965). Hewitt (2008) indicates that this being can have many forms, although strictly speaking, the body was water with the shape of the water most often resembling that of a 'bull ox' (i.e. a 'long shallow pool'). Rain fell wherever the animal went (Schapera, 1965). Frogs, fish, tortoises and snakes were protected by the Rain. Young unmarried women and particularly those menstruating for the first time (i.e. at the height of their reproductive powers) were especially in danger from the Rain, and were obliged to observe various codes of conduct to protect themselves. They were required, amongst other things, to propitiate the waterhole by using certain substances and to hide themselves from the Rain. They must not snap their fingers at other people (a highly dangerous procedure associated with lightning) and should not be spoken to against their wishes, in case the Rain became angry. There were a number of /Xam accounts of disobedient young women being punished, together with those around them, by the angry Rain. These young unmarried women could also be picked up by the whirlwind (sent by the Rain) and transformed into snakes, frogs, porcupines, stars and beautiful water flowers. The water flowers would not allow themselves to be picked and disappeared when anyone approached. The Rain was thus something to be feared and respected, since it had the power to change people into animals and other objects, and to cause death and destruction by means of storms and fierce lightning or drought (Schapera, 1965).

Rain also brought water and made the plants grow (Schapera, 1965). Water, as the /Xam were well aware, gave life. It is therefore not surprising that /Xam beliefs about rebirth usually involved water. One example was when /Kaggen restored his eldest son and his sister (the Blue Crane) to life after they had been killed, by throwing a body part of each into a river. Over time, this part grew into the person from which it had been derived. Another instance was where one of the feathers of a dead male ostrich was blown into the water by the wind, and duly became a new ostrich. The Rain, according to Schapera, was perceived to be a magic animal ridden by the spirits of dead men. (A different opinion is given in **Chapter 5**.) Certain magicians had power over the rain, causing it to come or stay away, as they desired. Such magicians, even after they died, could still be asked to send rain. Other magicians had a similar power over the wind (*!khwe*), and were protected by the wind. A howling wind was believed to foretell evil, and advised the 'beasts of prey' where to find people (Schapera, 1965). It was the noise of the wind blowing over and around the huts which alerted these beasts (i.e. lions) to the whereabouts of the people (James, 2001). The lions, when the wind blew strongly, could approach the huts of the /Xam without being heard (Schapera, 1965; James, 2001). The wind had once been a man of the Early Race, but subsequently appeared as a bird (Schapera, 1965; James, 2001). Note that magicians are referred to in the recent literature on the /Xam as 'sorcerers' or more generally as 'shamans'. Lions could also indulge in magic, and might do so at a waterhole to catch people unawares (James, 2001).

The /Xam notion of death was seemingly not very complicated. People lost their 'thinking strings' after death, specifically the means by which they understood matters, while their hearts 'fell down' (James, 2001). It should be explained that the person's 'heart' fell from his throat (the hollow of the throat) to the middle of the body, where it remained. This event was a metaphor for the cessation of breathing. The thoughts of the dead 'ascended' and their bodies were buried in the ground. The deceased became 'spirit people'. Sorcerers, nevertheless, were in a different category. The spirits of sorcerers could come to take the dead person away. The spirits of sorcerers were reasonably active, since their magic was still effective even although they were dead. In the vast majority of cases the deceased people went to the same place when they died. The dead bodies remained in their graves until a later stage when the deceased rose from the grave and walked along a particular path to a great hole in the ground. This locality was the 'holding place' for the dead. The great hole was shared with all living creatures and functioned 'exactly as a house'. The deceased lived there as beings who enjoyed a somewhat pleasurable existence in a rejuvenated form (i.e. the old became young again). Death was a 'leveller' and 'reconciler'. The sentiment here was that the various species of animals as well as peoples who had once been different and separate from each other, and who had killed each other in the past, were now together. The path to the great hole was established by the Early Race and was subsequently used by the /Xam and other people, and also by the animals (James, 2001).

The San of Lesotho and the eastern Free State, the Maloti (Maluti) San, thought of the Mantis in much the same way as the /Xam, but with certain differences (Schapera, 1965). 'Kaang (i.e. /Kaggen), Cagn or 'Kue-'akeng-'teng ('the man (master) of all things') caused life and death and gave or refused rain. He was regarded as the creator and was particularly concerned with the sources of food. Prayers were addressed to him for food and success in

hunting and gathering. All the animals had special marks which he placed on their bodies. Cagn (the more commonly used name) was worshipped in times of famine as well as before going to war, when the *mo'koma* or 'dance of blood' was performed throughout the night. Cagn gave the people the song of the dance, and instructed them to dance thereto. Some people fell down ('died') during the dance but were resuscitated by medicinal charms originating from Cagn. Cagn was the first being and made all things including the stars, the Moon, the Sun, the wind, the mountains and the animals. Only the eland knew where Cagn lived. Cagn had a wife, Coti, and two sons, Cogaz (the eldest and an important chief) and Gcwi. There was another important being known as Qwangciqutshaa. The last-mentioned together with Cagn and Cogaz had great power, although it was Cagn who gave orders via the other two beings. Cogaz was killed by baboons and was brought back to life by Cagn. Cagn could change himself into different forms, and was then sometimes killed and eaten by animals or people, but always returned to life once more. Cagn, in San stories, appears as a human being, albeit with supernatural powers. He had a number of magical charms, the strongest of which was his tooth. The birds were his messengers who told him everything that was going on. Cagn was sometimes in trouble due to his misadventures, but was rescued by Cogaz. Another name for the Mantis was 'ngo. A different report referred to the San as having a male 'god' who was above them and a female 'god' who was below them in the ground. The name of the male god was Goba and that of the female god, Ko or Ko ('ngo). The spirits who attended Ko were known as Gauna (//gauwa). Ko, on occasion, came to the people while they were dancing and told them where game was to be found. A man was able to shoot better if Ko breathed hard on his arm at the dance (Schapera, 1965).

A more contemporary study of the //Xegwi San in the environs of Lake Chrissie was undertaken in the 1950s by Potgieter (1955). The //Xegwi, more commonly described as the Batwa, live amongst the Swazi and have adopted various aspects of Swazi culture. The //Xegwi believed in a benevolent supreme being or god, known as /a'an, who was the creator of heaven and Earth and the giver of many good things. He also made the //Xegwi. The //Xegwi concept of the supreme being was very vague, however. The supreme being was assisted in his work by a lesser being named /a'an 'e la tleni (/a'an the small). The belief in the past was that the spirit of a dead person went to live with /a'an in the heavens. The supreme being often played in the heavens with the lightning bird. The //Xegwi did not pray to the supreme being but addressed him in a raised voice to gain his attention, as if speaking to another person. This was done when the person was ill, or when there were other problems. The term /a'an was used in the 1950s by some //Xegwi to refer to the God of the Bible (Potgieter, 1955). With this background in mind, we must now turn to the northern San who live beyond South Africa.

The Naron (Nharo) and Auen or ≠Auin at Sandfontein had a belief in Hishe or Hiyesha, a supernatural being who lived in a house in the east, and who appeared in a number of guises at the puberty ceremonies of boys (Schapera, 1965). Hishe was regarded as the protector of game and hunting. He instituted marriage and the way of life of the San, the Khoikhoi and the white people. Hishe was the creator. Long ago, when the trees and animals were people, he commanded them to change to their present forms. It appears that he 'worked' with the magicians, although this procedure was not fully explained in the

old reports. The Naron and Auen, at one stage, began to borrow the concept of !khuba or !xuba from the Nama. This Nama word means 'master' or 'lord' and was used by several missionaries as the term for 'God'. There was, nevertheless, a degree of confusion since the elderly Naron and Auen men did not know him, while the middle-aged men thought that Hishe was !khuba. Some of the younger people believed that he was the sky, with others stating that he lived in the sky. The younger people prayed to this deity for a long life and health when sick. Women, who as children, had been kidnapped by Nama chiefs as slaves were very familiar with !khuba. Other women had no clear conception of the deity, but thought that it was 'good to pray to it'. Another being, Huwu or Huwuba, was the 'captain' of the 'men in the north'. He was also said to be the brother of Hishe, and according to one informant, was the 'captain' of the white people.

Huwu or Hu'e (spelt in different ways) was prominent amongst the !Kung (Schapera, 1965). In one account of the origin of death, involving the Moon and the Hare (and derived from the Lake Ngami area), it was indicated that Huwe, a man, made all things or more specifically all things to eat (i.e. animals). Another report concerning the !Kung further west at Tsumeb was that Huwe was 'a good being' who was responsible for the 'creation and maintenance' of all things. The !Kung prayed to Huwe to restore them to health when ill, and also for food at a special ceremony held when the edible bulbs of the veld (*veldkos* or 'veld food') were starting to ripen (**see Chapter 3**). *Veldkos* in a broader sense consists of the edible roots, bulbs, fruits and leaves of plants as well as small animals and insects. A further account of the !Kung religion was that the people had a belief in a 'supreme good being'. The eastern !Kung referred to him as Xu or Xuwa (i.e. the 'Lord' or 'great captain') who was equivalent to Huwu or Hu'e. This deity had anthropomorphic qualities, looked like the !Kung, and spoke their language. He lived in the sky in a double-storey house. The upper storey was occupied by the souls of the dead (*xa*), while the supreme being, his wife and many children lived on the ground floor. The house resembled an ordinary San hut, although its exterior was 'hairy like a caterpillar'. Xu summoned the magicians to do their work and gave them supernatural powers. Xu was the lord over lightning, the rain and the spirits of the deceased (//gauab). He sent good fortune in the collection of *veldkos* and in hunting via the chief of the //gauab. He punished those who thought or spoke evil of him, by means of lightning. He likewise punished anyone who swore an oath by him (a standard procedure amongst the !Kung) but who did so in a false manner. He was prayed to for rain, in cases of severe illness, prior to hunting, and before embarking on a dangerous journey. The western !Kung spoke of Erob ('God'), who like Xu, lived in a house in the sky which accommodated the souls of the dead. He was often prayed to, particularly for rain, when hunting, and in times of sickness. The reason for prayer was because he had made all things, could do everything and knew everything. He was given the first offerings of the hunt. The rain came at his command as a mist arising from the Earth which then fell as rain, thus making thunder and lightning.

The supreme being of the Hei-//om or Heikum (Hai//om) was known by various names, according to geographic locality (Schapera, 1965). He was Erob for those resident at Etosha Pan, but was addressed in prayers for rain and in times of sickness as Xu. Other Hei-//om referred to him as Xamaba; Erob or Xuwa, or simply as Erob. The supreme being lived in a house in the sky, to which the souls of the dead were brought. Schapera indicated that

almost everywhere he was perceived to be the creator of all things (mankind included), and sent rain. He was prayed to for rain, in sickness, before and after hunting, and before travelling. One set of Hei-//om offered him the first animals killed when hunting. Most Hei-//om thought that he was single (i.e. had no wife or children). He was benevolent and good, but seemingly did not have any influence on the moral life of the Hei-//om.

Huwe was the supreme being of the !O Kung of southern Angola (Schapera, 1965). He occasionally appeared at puberty ceremonies for boys and danced with the initiates, sometimes as a youth and sometimes in the double guise of a man and a woman. His name, in prayers to the New Moon for rain, could be substituted for the name of the New Moon (//nwa-se), although there was no evidence that the !O Kung worshipped him. The supreme being was said to appear to the people in dreams.

The supreme being of the San of the eastern Kalahari (evidently the Hiechware or Hietshware) was Huwe (Schapera, 1965). He was also known as Dzimo (a corruption of the Tswana word Modimo or 'God'), and as Thora. Huwe was a 'good spirit' who warded off disease, provided plenty, and protected the San from danger. He was called upon by the people when danger threatened. This being was more frequently referred to as Thora. He made all things, although his place of residence was unknown. The Eastern San were not sure if he was a person. According to one report he was regarded as the 'Great One' (the creator) who is 'over all things', who sent game and rain, plenty of food, and good luck in hunting. Thora was praised for directing an animal towards the San, where they could shoot arrows at their prey. The difference between Thora and Huwe was unclear. Schapera believed that the two deities were substantially the same. Schapera was of the opinion that the name Huwe had been assimilated from the more western parts, thus explaining why this name was sometimes substituted for Thora, and was sometimes used together with Thora.

Another important northern San concept, that of //gauwa (Gaua; //gaua or //gauab), must now be considered. This word, amongst several San groups, was used for 'a person who has died', but can refer more specifically (in certain instances) to the ghost of a dead person (Schapera, 1965). A much wider application is however apparent. The Naron and Auen at Sandfontein regarded a strong and howling wind as //gauwa. One Naron story concerns the wind as a man going around, and of //gauwa as a bird which accompanies him. Some of the people evidently believed in a supreme //gauwa, a being who lived in the east near Hishe. This being was the younger brother of Hishe according to such informants, while others thought that //gauwa was Hishe. The ghosts of the deceased went to Hishe's house during the day. Another set of 'partly disorganised' Naron and Auen in the Sandfontein district spoke of a 'bad being' or 'Satan' (Gaua) to whom people dying a 'bad death' were said to go. Those dying a 'good death' went to a 'good being' (!khutse or !khuba). There was some notion that the San knowledge of magic was due to Gaua. This being apparently also took part in the puberty ceremony of boys.

The !Kung at Tsumeb believed in //gaua (from whom only evil could be expected) and who was opposed to Huwe (Schapera, 1965). They used amulets to protect themselves from //gaua. The !O Kung, further afield, thought that thunder and lightning were due to //gaua. It was said that '//gaua thunders' when thunder was heard. If anyone was killed by

lightning (a frequent event) then //gaua had taken him or her. Those killed by lightning were believed to sit in the sky as stars. All the stars were known as //gaua's fires. The San were the children of //gaua. He was a male being who lived in the forest in a hole in the ground. His abode could be seen from a long distance away by the magicians. He leads the people at a girl's puberty dance, while the cuts made on her body were said to be in his honour. The people did not pray to him, however.

Schapera (1965) referred to a more detailed analysis of the beliefs of the !Kung and the Hei-//om. The eastern !Kung thought that Xu, the 'great captain', was also the lord of all the spirits (//gauab) to whom Xu entrusted all dealings with mankind, excluding the rain which Xu himself controlled. The spirits influenced human life in both a positive and negative manner. The spirits looked like men, although they were often lame, and could be seen and spoken to by the magicians. There were *five* types of spirits. The first, their chief or headman, was known as //gauab by the ordinary people. The magicians knew his real name as /nawa, which they used. It is postulated that the last-mentioned concept was that of a high god of another religion, with /nawa being identified with //nwa-se (the New Moon of the !O Kung). /nawa or //gauab performed both good and evil functions. He was prayed to for success in hunting and received the first offerings of any game killed, yet at the same time was most frequently the cause of illness. The old magicians credited him with the existence and present mode of life of man and the animals. One informant who had been baptized referred to him as the 'devil' who had made the !Kung. /nawa or //gauab was everywhere and moved between heaven and Earth using cords. [It will become apparent in this book that beliefs regarding cords which link the sky (heaven) and the Earth were once fairly common in southern Africa.] The second group of spirits were the //gauab who served the 'great captain'. They were usually to be found at their hearth-fires in the sky (the stars), and only came down to Earth to steal the souls of the dead (*xa*) and to bring these to Xu. The third group consisted of the 'small' //gauab (the ghosts of the dead) whose home was the grave, but who roamed around everywhere, and who were harmful to mankind. The fourth group were especially malicious little spirits living in water. The fifth group were the many spirits of disease (the dsao) who at the command of any of the other spirit groups would enter the bodies of the people and make them ill. It was the task of the magicians to remove these diseases from the thus afflicted San. The western !Kung, in contrast, did not have an elaborate belief in spirits, with one minor exception. These were the /gagorob or /gau/gorob which were small spirits roaming around in the bush, who played practical jokes on the people. They were not the spirits of the dead or //gauab.

Schapera (1965) described a special ceremony performed by certain !Kung magicians to call down the rain. All the people of the settlement took part in a dance when rain was urgently needed. The assembly sang a mournful song over and over again, lamenting the hunger and thirst that they were forced to endure. Finally the great captain in the sky heard the song. The magician in charge of the proceedings walked beyond the settlement and saw a thin cord being let down from the sky. The magician climbed halfway up the cord where he met the great captain climbing down the cord. The magician, on seeing the great captain, threw a powder up to him. The great captain lifted the magician high up, and took him into his house. The magician prayed to the great captain, stating: 'Lord, help us, the

children are dying, we thirst and hunger'. The magician continued to pray and plead until the great captain eventually exclaimed: 'It is well, I shall send water, that the children may have water and *veldkos*'. The great captain then accompanied the magician halfway down the cord. The magician, on reaching the ground, released his hold on the cord, which was promptly drawn up again into the sky. Rain immediately followed.

The Hei-//om of Etosha Pan had a belief in //gauab who was known locally as /gamab (Schapera, 1965). This being, due to Christian influence, was more latterly regarded as the 'devil'. /gamab has been equated with /nawa of the eastern !Kung and /gamab of the Nama. /gamab was said to have created the world and mankind. The souls of the dead or *darish* came to live with him, although he ate their hearts. These souls frequently returned to Earth to kill people. /gamab prevented the people from eating the hare or the ostrich, and made thunder and lightning. The stars were his hearth-fires. He often took a star and threw it at a man, thereby killing him. (Schapera observed that the eastern !Kung had much the same belief, where a shooting star was perceived to be the harbinger of death for someone.) Another being, Heiseb or Iseb, was regarded by the Etosha Pan Hei-//om as the 'saviour' who bestowed blessings on the people. The name /gamab was also used by the Hei-//om further afield, in the variant of Xamaba (also spelt as xamaba). The latter was the supreme being who made all things including mankind, and who sent rain. He was prayed to for rain, before setting off on a journey, and in times of sickness. He nevertheless inflicted illness on those he disliked. He received the souls of the dead in his house in the sky, and could be spoken to by the magicians. There was, further, an 'evil spirit' called Heiseb 'from whom comes the fire'.

The San in the eastern Kalahari (seemingly the Hiechware) thought that Huwe (or sometimes Thora) was engaged in a contest with an 'evil spirit' known as Gaua, Khauna or Gauna (Schapera, 1965). He was the destroyer who sent disease and bad luck, and who was always ready to injure people. The San requested Thora's help to ward off these attempts to hurt them. The evil spirit sent thunderstorms and lightning, which terrified the people. They regarded lightning as the offspring of Gaua and avoided killing the lightning bird or Hamerkop (*Scopus umbretta*). The San also refrained from robbing the nest of this bird. Anyone struck by lightning was thought to have got in the way of the lightning bird while trying to rob its nest. The religion of the San of the eastern Kalahari essentially consisted of two powers, one good and one bad, who were locked in an endless struggle for supremacy.

Schapera (1965) observed that there was clear evidence of outside influences which had been absorbed into the religious beliefs of the northern San (those living beyond South Africa). The primary agents included the Nama, the Tswana, the Herero and the white missionaries. One example was the Hei-//om, who after a certain time, virtually all spoke Nama. Another instance was that interpretations of //gaua as the 'evil being', 'devil' or 'Satan' were contrary to San traditional thought, and had reached the San via the Nama. The word //gaua, it should be noted, had been widely used for the 'Devil' by missionaries working amongst the Nama. //gaua was regarded by the northern San as firstly the ghosts of the dead, and then as a definite personified being which in both cases were the source of illness and death, with the latter being inflicted by means of the wind, thunder, lightning

and shooting stars. These ominous forces of nature were perceived to be *manifestations* of //gaua by the northern San, and the method by which he caused sickness and death. //gaua, in other words, came to be particularly associated with illness and death. The northern San, nevertheless, did not seem to attach any special significance of evil to //gaua *per se*, except where Nama influence was apparent. A major difficulty generally is that certain northern San religious concepts became blended over time, were secret (taboo), or were ambiguous, elastic or contradictory and simply confusing to outsiders, which explains conflicting opinions recorded by some anthropologists (Schapera, 1965). The borrowing of concepts by some San from other San groups is occasionally evident. A second major issue is that San religious beliefs have changed over the years. A good example of the extent of this change was provided by Marshall (1962) in respect of the !Kung (**refer to Chapter 5**).

The information given above on San religion constitutes a summary, up to a certain historical point, of a rather complex and highly variable topic. Mention has already been made of the wealth of data available on various aspects of San culture (including religion) which cannot be addressed in this volume. Readers are referred in the first instance to the annotated bibliography by Chidester, Kwenda, Petty, Tobler and Wratten (1997), and which contains summaries *inter alia* of San and Khoikhoi literature in the form of journal articles, reports and books. Another annotated bibliography in two volumes on both the San and the Khoikhoi was compiled by Willet, Monageng, Saugestad and Hermans (2002); as well as Willet, Saugestad, Radiporo and Motlogi (2003). Certain useful websites for further study are listed in **Appendix E**. Most of the information is available in English, although some of the original material is in German and Portuguese. A broad overview of San religion can be found in Guenther (1999).

The Khoikhoi

Tsui //Goab (not his original name) was the great hero of the Nama and other Khoikhoi (Schapera, 1965). The name, spelt in various ways, is usually translated as 'sore (or wounded) knee', which is derived from *tsu* or *tsui* meaning 'sore' or 'wounded' and *//goab* or *//khoab* ('the knee'). Tsui //Goab is said to have been a great chief, a notable warrior of considerable physical strength and a powerful magician. According to the Nama, he first made the rocks or stones from which the ancestors of the Khoikhoi came. The Korana maintain that he made the first man and woman. Tsui //Goab was very wise and could do wonderful things that no other man could achieve. He could also foretell the future. A slightly different version is that Tsui //Goab was a great and powerful chief of the Khoikhoi. He was the first Khoikhoi, from whom all the Khoikhoi groups originated. It is related that Tsui //Goab went to war with another chief known as //Gaunab, since the latter always killed many of the people of Tsui //Goab. During the fight, Tsui //Goab was repeatedly overpowered by //Gaunab. In every battle, nevertheless, Tsui //Goab grew stronger until at last he was so big and strong that he easily destroyed //Gaunab by giving him a blow behind the ear. //Gaunab, while dying, managed to hit Tsui //Goab on the knee. Tsui //Goab, since that time, acquired a new name which referred to 'sore knee' or 'wounded knee', given that he was lame and could not walk properly (Schapera, 1965). This derivation was rejected by Hahn (1881) who interpreted the name as 'the Red Dawn'. The Korana, as per Hahn, believed that Tsui //Goab lived in the Red Heaven or Red Sky. Hahn referred

to another mythological person whom he equated with Tsui //Goab. This individual was called ≠Eixa/kha-//nabiseb ('The Man whose body has a brass-coloured backbone'). He was addressed as 'Thou who paintest thyself with red ochre'. It was stated further by Hahn that 'When the day dawns the Khoikhoi go and pray, with the face [turned] towards the East: O, Tsui//goa, All-Father' (Schapera, 1965). Yet another interpretation of the name was supplied by Kroenlein, a German missionary, who published a Nama-German dictionary (Schapera, 1965). Kroenlein referred to the 'painfully-invoked one', which is derived from *tsu* ('painfull' or 'difficult') and *//goa* or 'to pray earnestly'. Schultze, a noted commentator on Nama customs in Namibia, rejected Kroenlein's views and expressed himself in favour of the first derivation of the name, as given above (Schapera, 1965).

Tsui //Goab died several times and each time he rose again. The Khoikhoi feasted and rejoiced whenever he came back to them. Milk was obtained from every household and fat cows and fat ewes were slaughtered. Tsui //Goab gave every man many cattle and sheep because he was so very rich. He made and lived in the clouds and caused rain, thus ensuring the fruitfulness of the livestock (Hahn, 1881; Schapera, 1965). Another informant interviewed by Hahn explained that '!Khub or Lord' (a different name for Tsui //Goab) made the Khoikhoi and gave them the country in which they lived. He also gave the people rain and made the grass grow. The Khoikhoi took oaths by him, signifying that they regarded him as a moral being who kept evil away. Health and recovery from illness were due to him. The Nama, as we have just seen, emerged from their huts at dawn and prayed to him. Tsui //Goab was also worshipped as the giver of rain at certain times of the year. One instance was at the great annual rainmaking ceremony (*guri ≠ab*) or the 'yearly killing', which was held by the Nama in about November or December. This ceremony was the most important in the Nama calendar. The people, amongst other things, brought milk and slaughtered female animals, at least one of which had to be pregnant (to promote fertility). The people danced and called upon Tsui //Goab to send plenty of rain, and to make the ground soft and the grass green so that there would be a great deal of food for the forthcoming year. A special communal prayer for rain was sung to Tsui //Goab at the ceremony. Hahn (1881) identified Tsui //Goab with /Nanub ('the thunder-cloud') and with !Gurub or 'the thunderer', one of the names of /Nanub. Certain other names are also recorded in the literature for Tsui //Goab. Schapera (1965) concluded that Tsui //Goab should be regarded as the personification of the natural forces producing rain. Tsui //Goab, in essence, was the creator, the guardian of health, the source of prosperity and abundance, and especially the controller of rain with the associated phenomena of clouds, thunder and lightning.

The evil chief //Gaunab was the counterpart of Tsui //Goab (Schapera, 1965). //Gaunab was responsible for sickness and death. The struggle between //Gaunab and Tsui //Goab, in one version of the event, takes place on an annual basis with //Gaunab, although destroyed, coming alive again. The name //Gaunab, due to missionary influence, subsequently came to be translated as the 'Devil' (Schapera, 1965). Hahn (1881), however, derives the name from *//gau* meaning 'to destroy' or 'annihilate'. //Gaunab is thus the 'the destroyer, the one who annihilates'. Tsui //Goab, according to the Nama, lives in a beautiful heaven while //Gaunab resides in a dark heaven. The Korana believed that Tsui //Goab lived in the Red Sky and //Gaunab in the Black Sky. Two early writers on the Khoikhoi spoke of //Gaunab

as a 'black chief' (Hahn, 1881; Schapera, 1965). Hahn was of the opinion that the two heavens were originally a metaphor illustrating the change of day and night, and identified Tsui //Goab with the Red Dawn and //Gaunab with the Black Night. Hahn suggested that this belief subsequently changed over time where the mythical battle symbolizes the conflict between life and death. Man dies (sleeps) each evening, covered by the dark night, while dawn in the east opens his eyes to new life when he feels refreshed. The red colour of the sky at dawn implies a fresh, bloody and sore wound from a battle between //Gaunab (who lives in the black sky) and Tsui //Goab (who lives in the red sky in the dawn). Tsui //Goab was thus the hero who had been wounded on his knee. He gives life to man every morning. Schapera (1965) doubted the latter version since too little is known about //Gaunab and Tsui //Goab to come to a definite conclusion on this matter. Carstens (1975) suggested that the battle involving the two adversaries could possibly (and rather simplistically) represent a conflict between good and evil, but more specifically may represent a continuum between a 'good' life and a 'bad' death, although the second perspective is difficult to prove.

An early missionary, George Schmidt, in referring to the Hessequa, observed that the people believed in a supreme lord and also a devil which they named Gauna (Schapera, 1965). Another early writer stated that the Nama thought that war and all evil comes from the devil or kouwnaap (//Gaunab). He was black, according to the magicians or *!gai aogu*, who claimed that they could sometimes see him. //Gaunab was appeased by sacrificial offerings. Hahn (1881) indicated that the Topnaars of Walvis Bay (a Nama group) offered prayers to //Gaunab in order to avoid provoking his anger. He was so evil that he even killed the Topnaars while they were out hunting. All illness came from //Gaunab or from his servants, the practitioners of witchcraft (sorcery). One Nama informant noted that the rainbow was made by //Gaunab and was a fire kindled by that being. //Gaunab deceives the people and leads them into this fire where they die. Such people were described as //Gauna-//o-khoin or Gauna-dying people. Korana mothers told their children to beware of //Gaunab who, as a great evil-doer, could kill them. //Gaunab, amongst other things, was closely associated with the malicious (evil) ghosts of the dead or */hei /nun* (Schapera, 1965). The term *//gaunab* is itself used for a ghost. //Gaunab is also another name for *Sarés*, the whirlwind, which threatens sickness and death.

Schapera (1965) stressed that Khoikhoi perceptions of //Gaunab were vague, inconsistent and ambiguous. The name //Gaunab was sometimes used for the ghost of a dead person, sometimes as a collective name for these ghosts, and sometimes in the sense of a personified being with various special attributes. Based on the limited available evidence, it appears that //Gaunab should be regarded as a 'vague conception' founded on beliefs about the fate of the dead, and the ways in which the dead can affect or influence the living (Schapera, 1965). Carstens (1975), in an additional analysis, states that not all the dead were thought to become evil spirits. Evil spirits were those who had died suddenly or in great agony, or raving madly, or who had resisted the moment of death. Such spirits caused harm to their relatives via misfortune, or by disturbing their relatives (i.e. by rising from the grave). Carstens believed, further, that the earlier assumptions that sorcerers were thought to work in conjunction with //Gaunab (the Devil) and the evil spirits may be erroneous. Those anthropologists who came to this conclusion could have been confused by the fact that sorcerers were believed to themselves become evil spirits (//Gaunan: literally male

and female devils or */hei /nun*) after death. Carstens (1975) explained that a magician or *!gai aob* (literally a magical medicine-man) was also a diviner (with some indulging in sorcery) although a clear distinction between sorcerers, good magicians and diviners was apparently not made in Khoikhoi thought. Female */hei /nun* (ghosts) were troublesome and greatly feared, while the whirlwind was feminine.

Carstens (1975) in referring to Hahn (1881) highlighted a somewhat different Khoikhoi perception of Tsui //Goab involving thunderclouds and the dangers thereof. Carstens believed that the Khoikhoi had a dual relationship with Tsui //Goab. The Khoikhoi, at times, feared that Tsui //Goab could cause them misfortune. Carstens states further that no Khoikhoi individual or group was ever sure who was responsible for misfortune (i.e. Tsui //Goab or //Gaunab). The latter certainly had the stronger link with evil, misfortune and plain bad luck, and was also not associated with good luck or the protection of the Khoikhoi. Tsui //Goab was hard to satisfy and was not always appeased by sacrifices. There were only two fully-fledged sacrifices made each year to Tsui //Goab, namely: the rainmaking ceremony and the Feast of the First Fruits. The two old enemies, for the remainder of the year, periodically dispensed punishment and misfortune 'as though they were friends' according to one elderly Nama interviewed by Carstens. The Khoikhoi were constantly at loggerheads with these two entities, where nothing unfortunate was ever properly explained in religious terms. Carstens (1975) goes on to state that *collective* good fortune and successful social protection, nevertheless, was clearly of a different order, and constituted a sign that Tsui //Goab was as active on Earth as he was in his celestial domain. The situation was further complicated when good fortune for one local group of Khoikhoi was at the expense of another local group, who experienced bad fortune. A pertinent example is a territorial dispute over the right to use a particular waterhole.

A mythical hero of the Khoikhoi was Heitsi Eibib, Heigeib, Heiseb or Kabib (Schapera, 1965). The name is generally interpreted as 'prophet' or 'foreteller', which is derived from *heisi* or 'to tell', 'to give a message', or 'to order' and *eibe* from 'beforehand' or 'previously'. Hahn (1881), in turn, derived the name from *hei* ('tree') and *ei* ('face', 'likeness', or 'appearance'): hence 'the One who has the appearance of a tree'. Hahn in support of his contention observed that Heigeib means 'Great Tree', from *hei* ('tree') and *gei* ('great'). Heitsi-Eibib was said to have been a celebrated magician in the old days who did miraculous things. The Nama referred to him as their great-grandfather, and as a powerful, rich chief. He originally lived in the east and had plenty of sheep and cattle. He conquered and annihilated all the enemies who killed his people. He was clever and wise and could foretell what was going to happen in the future. He could change himself into many different forms and was able to go through rivers and mountains while being pursued. Heitsi Eibib fought and killed numerous evil monsters and also conquered great lions. He cursed the lion, hare and vulture, whose behavioural characteristics were due to his command. He died in many places, was buried, and always came back to life. His graves are to be found all over the Cape Colony (as it then was) as well as in Namibia, usually on both sides of the road in narrow mountain passes. These graves consist of large heaped piles of stones, to which the Khoikhoi when passing and requesting success in their endeavours, added pieces of their clothing or skins, or zebra dung, or twigs of shrubs and tree branches as well as stones. More substantial offerings of honey and honey beer

were sometimes left on his graves. Heitsi Eibib gave the people good advice and told them how to kill the lion's children and other wild animals. He was thus prayed to by hunters, for success, at his graves. The Khoikhoi also prayed at these graves for many cattle and other benefits. Heitsi Eibib kept the people safe from danger, provided that they honoured him. Hahn (1881) identified Heitsi Eibib with both Tsui //Goab and the Moon. All three, as per Hahn, come from the east (where the Sun and Moon rise), which is why the doors of Khoikhoi huts and graves are in that direction. The dead are also placed towards the east, so that their faces look towards sunrise. Even wagons owned by the Khoikhoi were positioned so that the front was open to the morning Sun. The Nama, in this regard, explained that 'Our grandfather Tsui //Goab, or our ancestor Heitsi Eibib, came from the East'. Both were referred to as 'Father' or 'All-Father'. All three (including the Moon) promised immortality to men and could alter their shape, disappearing and reappearing (Schapera, 1965). A significant observation by Schapera was that the name Heitsi Eibib appears as a borrowed concept in the Heiseb of the Hei-//om of the Etosha Pan area, and perhaps also in the Hishe (i.e. Huwe) of the Naron and Auen, thus indicating considerable interaction between the Nama and some San.

Schapera (1965) disagreed with some aspects of Hahn's analysis (the close association described immediately above), stating that Heitsi Eibib was the central figure in a cycle of myths. He had a family and had dealings with various other people and animals. He was full of tricks like /Kaggen (the Mantis) of the San and was not altogether a blameless individual. He was regarded with far less respect and reverence than Tsui //Goab and did not have the latter's creative powers. There were further differences, with the Khoikhoi speaking of the two as separate beings. Schapera (1965), in summary, was of the opinion that Heitsi Eibib was in some manner connected with the ancestors, and could be viewed as a traditional hero of the past (around whom certain legends had arisen), or possibly as a mythological ancestor living much the same type of life as the Khoikhoi. Carstens (1975) suggested that Heitsi Eibib was solely concerned with individuals and not groups, and was an independent figure whose function was to bring good fortune to individual people. The many graves of Heitsi Eibib can be interpreted as monuments to individual good luck. The graves served as 'reminders' that this terrestrial hero (not a personified deity) granted success and afforded protection to the Khoikhoi. Heitsi Eibib, when addressed in a kinship manner, was referred to as 'grandfather' (a term of familiarity) and not 'father', the name used by the Khoikhoi when praying to Tsui //Goab (Carstens, 1975).

A creation belief held by some Korana (the Links or //aremŋ //ais) was that at first there were only two men in the world, a Korana and a Bushman or San (Stow, 1905). A woman came out of the ground, whom the Korana married. The country was populated from this union. The Korana employed the San to kill game. One day the San went to a large cave where the Korana kept his calves (there being no cattle enclosures in those days). The San shot one of the calves with an arrow. He skinned the carcass and brought the meat to the Korana, as if it was game. The Korana was surprised by the taste, and asked the San where he had acquired the meat. The San only replied that he had shot the animal. The Korana secretly followed the San when he next went hunting, and saw the San go to the cave and shoot another calf. This subterfuge resulted in a disagreement between the two men. A little before sunset one evening the Korana and the San agreed to a separation,

and also a division of the cattle, previously regarded as their mutual property. The San advised the Korana that he would choose the cattle with sparkling eyes, not realizing that this characteristic was due to the evening rays of the Sun. The Korana preferred the dark-eyed cattle, but refrained from making an actual selection until the Sun went down. The San could not then find any cattle with shining eyes, and thought that they had strayed. He set out to look for these cattle. The San returned after an unsuccessful search, with his body badly scratched by thorns. The Korana, in the meanwhile, had smeared his legs and face with butter, which he had accidentally obtained from the milk. The Korana looked so well and healthy that the San was ashamed to stay any longer. The San left without his share of the cattle, henceforth subsisting entirely on game (Stow, 1905). Hahn (1881) gives a different Korana variant. It is stated that Tsui //Goab made two people: a man Kanima ('ostrich feather') and a woman Hau na Maos ('yellow copper'). Tsui //Goab gave them cows so that they could drink milk, a jackal tail to wipe perspiration from the brow, a wooden staff with an attached club (a *knobkerrie*), a quiver with arrows, a bow and a shield. The pair expected all good things from Tsui //Goab who lives in a light sky on the other side of the blue sky.

Hodgson (1982), drawing on the older sources, mentions further versions of the origins of the Khoikhoi. It was said by some Khoikhoi resident on the west coast that their cattle came out of a hole in a flat rock, and that the spoor (tracks) of the cattle could be seen on the stone. Another account is that the first man and the first woman came forth from a hole (window) in the sky; or alternatively that the first people descended from the sky in a large basket.

The Zulu

There are several Zulu versions of the creation. According to Berglund (1989) the creation involved the descent or lowering from the sky of the first man and later the first woman. A reed was used to sever their physical links (a cord) to heaven. This event explains how the people came to be known as the *amaZulu*, because they were from the sky (i.e. heaven). The Zulu were thus of divine origin (Berglund, 1989). The word *izulu* means 'heaven, the sky, climate, weather, rain or lightning' (Dent and Nyembezi, 1979). Another Zulu word of relevance is *isibhakabhaka* meaning 'the firmament' or sky (Dent and Nyembezi, 1979). One should not point at the sky, out of respect, since this is the place of heaven and the deity (Berglund, 1989). It was also said that the *uhlanga* (*ohlangeni*) was the spot where the black people and the white people originated from (*dabuka'd*) (Ngidi alias Magambukazi: a Zulu informant cited in Webb and Wright, 2001). This locality could be the place where the sky meets or *hlangana's* with the Earth. No one was sure about the source of origin, or knew where the meeting point of these two bodies actually was. The Zulu speak of all things as originating (*ohlangeni*), implying perhaps, where the sky and the Earth meet.

Miller (1979) referred to 'the one who first made his appearance' (frequently spelt as uMvelinqangi or Mvelangqangi). It is thought that he emerged from the reeds (*uhlanga*). He is sometimes known as *iNkosi* uHlanga or 'the king of the reeds'. He created heaven itself as well as the Sun and the Moon. He then brought forth the people and all the other things of the Earth, and instituted the customary way of life (Miller, 1979). A slightly

different version is that the creator, when he made humankind, also gave the Zulu the Sun and the Moon as their light, so that they could see properly (Mbiti, 1970). Lugg (1975) described the supreme being as uMvelinqangi ('the first spirit') and uSimakade ('the eternal one'). The Zulu creator, as per Hammond-Tooke (1993), was Mvelangqangi or 'the first to emerge'. Another name for the creator was uNkulunkulu ('the old, old one'), also known as 'the great, great one', which is currently used in the Christian context. According to one account, uNkulunkulu (the subject of some controversy in the literature) refers to both the original being *and* his wife, who sprang from the bed of reeds immediately after him (Krige, 1950). It was also believed that uNkulunkulu (as the creator) made the Sun and the Moon, the animals and birds, water and the mountains; and initiated the existing order of society. He is not worshipped, since he is said to have died so long ago that no one can remember his praises. He also has no descendants so there is nobody who can worship him (Krige, 1950).

A variant related by Ndukwana (a Zulu informant cited in Webb and Wright, 1986) is that Mvelinqangi ('the first to appear') created all things. Nothing further was known about him including who, in turn, created *him*. Ndukwana stated that the Zulu did not know or speak of Nkulunkulu ('the greatest one') until the advent of Christianity. A second variant is that there was an ancient Zulu belief in an uNkulunkulu or Umvelinqangi, also called uKulukulwane (Mqaikana: another Zulu informant cited in Webb and Wright, 1986). This deity was a person who created all things, after pushing back the ocean and defining the limits of the sea. This person created men, animals, rivers, mountains, food and water [i.e. much the same data as given in Krige (1950) above]. The earliest Zulu knew of his existence and believed in it, but could not say what this person was actually like (Mqaikana cited in Webb and Wright, 1986). Mqaikana also mentioned the 'chief above' (a pre-Christian deity in the sky) on whose honour the Zulu would swear an oath to tell the truth, while ritually holding a finger up and pointing to the sky. Virtually the same procedure was undertaken by the Xhosa, for the same reason (Mabona, 2004).

Hammond-Tooke (1993) as well as Eiselen and Schapera (1966) likewise referred to a further god, the Chief of [in] the Sky (*iNkosi* pezulu) who brought storms, caused rain and thunder, and who used lightning to kill anyone who offended him. An alternative name is Heaven or the Lord of Heaven (Krige, 1950). Berglund (1989) referred to this deity as the Lord of the Sky (*iNkosi* yaphezulu; *iNkosi* yezulu, or *iNkosi*), also known as uMvelingqangi. Modern Zulu, as per Berglund, may use the name Lord of Lords or *iNkosi* yamaKhosi. The sky (the abode of the Lord of the Sky) in the minds of many Zulu was not that much further above the clouds. The sky comes down on the people when the clouds are low. This is sometimes good and sometimes a cause of fear. Low clouds meant that the Lord of the Sky was close. The people should remain indoors and keep quiet out of respect. The sky is far away when the clouds are at a high altitude. The sky (cloud) moves up and down as the Lord of the Sky desires (Berglund, 1989). A primary source on the religious beliefs of the Zulu is Callaway (1870). A thought-provoking discussion on the whole concept of an original Zulu 'god' is to be found in Hexham (1981). Some Zulu children, interestingly, are still advised by their grandparents not to enquire too deeply into the nature of the heavens and the sky (Govender, 2011). This perception is indicative of long-standing Zulu taboos regarding these topics.

The Swazi

The detached supreme being of the Swazi was Mkhulumnqande who created the Earth and everything that lives and grows there (Marwick, 1940). His footprints can be seen in certain rocks which were not quite solid when he walked on these rocks. Mkhulumnqande, after placing people on the Earth, instructed them in the things that they were permitted to do and those which were forbidden. Mkhulumnqande was credited with fabulous marvels which even the ancestral spirits (*emadloti*) were unable to achieve. Mkhulumnqande sent his disciple or messenger Mlentengamunye (meaning 'one leg at a time') down to Earth at periodic intervals. This heavenly representative occasionally arrived in a cloud of mist. The people were very frightened of Mlentengamunye who remained for about a month. Various rituals were performed by the Swazi to appease Mlentengamunye, one of which involved the burning of fowls or goats on a type of funeral pyre. The smoke ascended to heaven and thus to Mlentengamunye. Marwick (1940) observed that the concept of Mkhulumnqande as the supreme being has, in more recent times, become confused with that of the Christian God (Nkulunkulu) due to the influence of the missionaries. The missionaries took no notice of Mlentengamunye. Kuper (1961) noted that Umkhulumcandi (different spelling) or 'the First Being', i.e. the Great Ancestor (*Lidloti lelikhulu*) is never specifically mentioned in prayer or sacrifice. He 'broke off' all the things on Earth such as the trees, mountains and people. Over time, the ancestors gradually intervened between Umkhulumcandi and the living. The Swazi are not interested in him, nor is he interested in the Swazi. Umkhulumcandi has a messenger, Umlenzengamunye or 'One Leg' (Kuper, 1961).

The Ndebele

The Ndebele in South Africa are divided into two groups, the Northern Ndebele and the Southern Ndebele. A third group, the Ndebele of Zimbabwe, are the descendants of Mzilikazi kaMashobane, the king of the Matabele (Ndebele) and his followers (Skhosana, 2009). The last-mentioned group is not discussed in this volume, except in an historical context. Anthropological and other literature on the Ndebele in South Africa is sparse, difficult to trace, and has seldom been properly consolidated. The Northern Ndebele are mainly concentrated in the environs of Mokopane (Potgietersrus), Mashashane and Zebediela. The Southern Ndebele are generally to be found to the west of Pretoria and to the north in the vicinity of Hammanskraal, as well as to the north east in the former Self-governing Territory of KwaNdebele (in the present-day Mpumalanga Province). There is general agreement on the history of the Southern Ndebele, but this is not the case for the Northern Ndebele. Skhosana (2009) observed that Northern Ndebele and Southern Ndebele can be regarded as two distinct languages, even although they originate from the same historical source. Southern Ndebele (*isiNdebele*) is one of the 11 officially recognized languages in South Africa. The Northern Ndebele language (*siNdebele*), however, has no official status.

The Northern Ndebele term for the creator is *muhloli*, while the Southern Ndebele refer to *umdali*. The name for 'God' is *uZimu* (Southern Ndebele) and *mudimu* (Northern Ndebele) (Skhosana, 2009). It is unclear exactly what the difference between these two concepts is, however. According to Fourie (1921) and Kuper (1978), the Southern Ndebele supreme being or creator, who made all things, is Zimu (sometimes spelt as uZimu). Another name

for him is Mlimu (uMlimu), which evidently reflects a Sotho influence. Zimu made the world and everything above and below. He lives in heaven. Zimu appeared to the ancestors or old people (*abakadeni*) of the Southern Ndebele in the distant past, with this link later falling away once Zimu became more remote. The Southern Ndebele did not normally worship or praise Zimu, although they prayed to him when in sorrow or in sickness, in order to ask for his assistance. Zimu rages in thunderstorms and sends droughts when angry with the people. Zimu used an intermediary known as Mlenze Munye or 'One Leg' to pass on instructions regularly every year to the people. It was the *abezimu* or ancestral spirits, nevertheless, to whom the Southern Ndebele customarily turned when difficulties arose. The dead were buried in a sitting position, facing towards the south east (i.e. Zululand), from whence the people came a long time ago (Fourie, 1921; Kuper, 1978). It should be noted that the Southern Ndebele today consist of the Manala and the 'junior' Ndzundza. The latter were the subject of Fourie's book (Kuper, 1978).

The Xhosa

The Xhosa creator or supreme being was known as uDali (Dali), uThixo (Tixo) or uQamata/Qamata or Qwamata/Qamatha (Miller, 1979; Eiselen and Schapera, 1966; Soga, 1931). The former (uDali) is regarded as the correct Xhosa name, according to Soga as well as Eiselen and Schapera, with the other two names being religious loan-words obtained from the Khoikhoi. The creator made the Earth, the people and all other living things. The Xhosa once believed that all people and all forms of animal life were brought forth by the creator from a subterranean cavern situated 'in a land in which the sun rises' (Hammond-Tooke, 1993; Peires, 1989). The site of origin was a wetland overgrown by reeds, which concealed the entrance to a huge cavern in the centre of the Earth (Peires, 1989). This place was the *uHlanga*, a Xhosa concept which encompasses both the creator and the source of creation. Almost all deep pools and rivers were potential openings to the *uHlanga*. A similar notion was related by Mabona (2004) where the Sun, the Moon and everything else was said to have come from a cavern which was thought to be on the horizon between the sea and the sky. Hodgson (1984) states that the term *uHlanga* was also used to describe the creator as the ultimate source of all power, and was sometimes identified with lightning. The Chief or Lord of the Sky or *iNkosi* yezulu, similarly, was at times linked to lightning, which kills. This deity also sends rain, but will withhold rain if he is angry or irritated (Hodgson, 1982). Another name for the supreme being was *iZulu* or 'the sky'. The supreme being resided in a place in the sky not far above the clouds (Hodgson, 1982). Hodgson (1982) described such beliefs as a 'nature religion' in which creation and destruction go hand in hand as in nature itself. Mabona (2004) refers to the Chief of the Sky as *iNkosi*, due to his supposed power over cosmic phenomena including the Sun, the Moon, the stars, lightning and rain. It was believed that anyone going down deep enough in water would end up in the sky. Note that Hodgson (1982), citing oral evidence, indicates that Qamata was the *original* name for the Xhosa deity. This name was too sacred to be freely used in conversation by the Xhosa, hence the lack of outside knowledge of such a being. The Xhosa, further, did not often think about these high matters. The term Qamata, as per Hodgson (1982), is definitely of Khoisan origin. According to Zenani (1972) the first Xhosa human being came into existence 'naturally'. The first man, Tshawe, sired the first children who were the origins of all the Xhosa-speaking people. Another version cited by Hodgson (1982) is that the original Xhosa man and his wife descended in remote times through a window

onto the Earth. A related version of the myth is that the first people, who had tails, came down from the sky on the filaments of a spider (Mabona, 2004). The filaments are also said to be the means by which the first being went up to the sky, after becoming disenchanted with mankind. The filaments likewise enabled the sky people to go up and down between heaven and Earth. Mabona speculated that the filaments could well be associated with the concept of life and death.

One historical instance of a degree of worship of the Xhosa creator is outlined here. A Xhosa custom of considerable antiquity, also seen amongst the Zulu, was that of the *isivivane* or stone cairn. Broster (1967) referred to her father's description of an *isivivane* in the (then) Transkei in 1880. The father, while travelling on horseback and accompanied by a Xhosa guide, came across an *isivivane* in a gorge known as Cala Pass, near Cala Road (presumably Cala, south west of Elliot). The guide immediately halted, dismounted, picked up a stone, removed his beaded headband and very reverently placed the stone on a pile of stones (the *isivivane*) lying on one side of the footpath. The guide exclaimed: 'May the Great One take care of us on our journey'. The guide rather reluctantly explained to Broster's father that it was the custom when coming across an *isivivane* to remove one's headdress and to cast another stone on the pile. Travellers should ask the Great One to take care of them while on their way, or request some special assistance which might be required. The guide was unable to answer any specific questions on the type of being or his abode. Broster's father stated that he had known of Xhosa who had made a special and lengthy trip to place a stone on an *isivivane*, and to invoke a particular request. Broster's father was aware of only two other such cairns in the general locality, namely, near Clarkebury (north of Idutywa) and on the way to Umtata (now Mthatha). It would seem that the cairns were situated on the main paths frequently used in densely populated terrain, although elderly Xhosa men could provide no details in this regard to Broster's father. The Great One was referred to as Unkhulukhulu or less commonly as Qamata, in that part of the Transkei discussed by Broster (1967). Other spellings of this name are uNkulunkulu and Nkulunkulu (Hodgson, 1982). Another Xhosa term for the original creator who produced the existing things is uMvelinqangi meaning 'the first born' (Hodgson, 1982).

An example of a blend of traditional Xhosa and Christian beliefs regarding the creator is the following 'Great Hymn' (= *Ulo Thixo Omkhulu*) written by Ntsikana (?1780–1821) who was an early Xhosa convert to Christianity (**see Chapter 5**). The translated version below (not the only such translation) was provided by John Wittle Appleyard (1814–1874) of the Wesleyan Missionary Society, and was reproduced in Callaway (1870). Mention of the Pleiades and shooting stars clearly demonstrates the importance attached by the Xhosa to these celestial phenomena.

The Hymn of God

Thou art the great God—He who is in heaven.
It is Thou, Thou Shield of Truth.
It is Thou, Thou Tower of Truth.
It is Thou, Thou Bush of Truth.
It is Thou, Thou who sittest in the highest.
Thou art the Creator of life, Thou madest the regions above.

The Creator who madest the heavens also.
The Maker of the stars and the Pleiades.
The shooting stars declare it unto us.
The Maker of the blind, of thine own will didst thou make them.
The Trumpet speaks—for us it calls.
Thou art the Hunter who hunts for souls.
Thou art the Leader who goes before us.
Thou art the great Mantle which covers us.
Thou art He whose hands are with wounds.
Thou art He whose feet are with wounds.
Thou art He whose blood is a trickling stream—and why?
Thou art He whose blood was spilled for us.
For this great price we call.
For thine own place we call.

The Bhaca, a Xhosa-speaking people, had a vague belief in a creator who had made all things (*umdzali*) (Hammond-Tooke, 1962). The details of this supreme being or creator and any associated rituals have long since been submerged by Christian doctrine. The Thembu or Tembu, another Xhosa-speaking people, occasionally appealed directly to the creator for his help in extreme circumstances, for example, in times of disaster such as a drought or epidemic (Tyrrell and Jurgens, 1983). There is evidently no proof that the Mpondo, a further Xhosa-speaking group, believed in the existence of any supreme being or other beings in the past (Hunter, 1961). The Mpondo, nevertheless, have two words which could suggest a belief in a creator, although there were no rites or beliefs connected with these words. Reference is made here to *umdali* = 'creator' (*ukudala* = 'to mould or form') and *umenzi* = 'maker' (*ukwenza* = 'to make'). Pauw (1975) indicates that Hunter (in later years known as Wilson after her marriage) came to accept that the Mpondo did indeed have some type of belief in a supreme being. Hodgson (1982) stated that Xhosa beliefs in general were part of the Nguni tradition where there were two main conceptions of the supreme being: one relating to origin and the other connected with the sky and its phenomena. It is apparent that there were a number of similarities regarding Xhosa and Zulu religious beliefs.

The Venda

The remote and detached Venda creator and sky god (Raluvhimba), who was linked with the beginning of the world, resided somewhere in the heavens (Stayt, 1931). His name is derived from the word *luvhimba* meaning 'eagle' or 'the bird that soars aloft'. This being was connected with all astronomical and physical phenomena and travelled through the sky as a shooting star (meteor), or as the rumbling of thunder (*muvumo*). Stayt (1931) indicated that the Venda had a very real concept of Raluvhimba moving through the sky, and using the stars, the wind and the rain as his instruments. Any natural event which troubled the people was a manifestation of the creator. Raluvhimba was associated with thunder, lightning, floods, prolonged droughts, comets, meteors, earthquakes, outbreaks of pests and epidemics. There was a relationship between Raluvhimba and the chief (*khosi* or *musanda*), where Raluvhimba was the grandfather or *makhulu*, and the chief was his grandchild (*muduhulu*). Raluvhimba was identified with Mwarí or Ñwali. Mwarí was the

Shona god who revealed himself via an oracle (the priesthood) to supplicants at Mbvumela in the Matobo (Matoba) Hills in the (then) Rhodesia (Zimbabwe). The Venda ascribed all the powers of Mwarí to Raluvhimba, where both were probably separate deities at one stage. Stayt (1931) observed that this being, more latterly, was referred to by either name. Raluvhimba was the name used by the Venda. The reason for this 'dual' deity relates to the fact that successive waves of migrants crossed the Limpopo River over time to settle in Venda, bringing their beliefs with them. The elusive concept of the creator was not of primary concern to the ordinary Venda. Another Venda deity, vaguely linked to the creation, was Khuswane or Khuzwane, although his origins have been lost in the mists of time. It is believed that the (seemingly) human footprints found in rocks at sites such as Mphephu, Luvhimbi and Mutale were made by Khuswane in the days when the rocks were still soft. The rocks in these areas have numerous impressions which resemble human and animal tracks (Stayt, 1931).

The Tsonga

Creation, as related by the Tsonga, is complex. It is apparent that the intermingling of Tsonga beliefs with those of adjoining African groups is confusing, and is virtually impossible to resolve. Junod (1927) discussed one version which he believed to be most accurate (less diluted by foreign influences). It is stated that the first man and woman suddenly came out of one reed (*lihlanga*), which exploded (*baleka*), and there they were. A second version is that men of different tribes (groups) emerged from a marsh of reeds (*nhlanga*). Each group already had its own specific customs, implements and mode of dress. The first man and woman were known as Gwambe and Dzabana by the northern Tsonga; and Likalahumba and Nsilambowa by the Ronga. (The Ronga are a sub-group of the Tsonga who are resident in Mozambique and to some extent in Maputaland, also known as Tongaland, in north eastern KwaZulu-Natal in the environs of Kosi Bay and slightly further afield.) The first human beings introduced fire and the culinary arts to the world. The world was young and the rocks still soft when the first people appeared. These ancients left their footprints in the rocks, which can still be seen today. The Maluleke and other Tsonga living near Spelonken (presumably Groot-Spelonke) almost certainly borrowed their concepts of the origin of man from the Pedi or Venda. The first man in this instance was Rivimbi or Luvimbi who had a son, Khudjana, Khudjwana or Kudjwana. Rivimbi was referred to by these Tsonga as Hobyana, who was the creator of heaven and Earth, and the first Tsonga ancestor. A further variant is that Ñwali, Ñwari or Myali was the creator of heaven and Earth as well as the first ancestor, as per the Maluleke and Hlengwe. Such deities were responsible for the creation of mankind. Rivimbi (a borrowed concept) was seemingly the first ancestor, who became the great god. There was a relationship between Rivimbi and Ñwali who was either the father or son of Rivimbi, or identical to him.

Another Tsonga version is that Ntumbuluko (Nature) created heaven and Earth. *Ntumbuluko* is derived from *ku tumbuluka* meaning 'to be created' or 'to appear' and is well translated by the word 'Nature' (Junod, 1927). A related concept is that of Tilo (Heaven). *Tilo* is a Tsonga word which refers (a) to the blue sky, (b) to a desirable place of pure rest seldom found on Earth (i.e. heaven), and (c) to an impersonal power, sometimes known as Hosi or Lord, which was superior to the ancestors. This power (a personification of nature) generally regulated and presided over all unaccountable and unavoidable phenomena of

both nature and human existence. Tilo sent all the rain and storms and killed people by means of lightning (including thieves); afflicted children with fatal convulsions; brought forth unwelcome twins, and controlled life and death. The most characteristic manifestation of Tilo was storms. It was Tilo 'which kills and makes live'. Someone who had escaped deadly danger or who was very prosperous was loved by Tilo, while another who suffered great misfortune or who died was hated by Tilo (Junod, 1927).

The Sotho-Tswana

The Sotho-Tswana had several creation stories which were primarily variants of each other (Miller, 1979). One version is that both wild animals and man emerged from a waterhole. This waterhole is believed to be at Lowe (Loë or Metsieng), near Mochudi, north east of Gaborone in Botswana (Dornan, 1917; Wilman, 1918 and 1919; Miller, 1979; Tyrrell and Jurgens, 1983). A photograph of the waterhole can be seen in Huffman (2007). The wild animals came out in great numbers first, and remained at the entrance to the hole or cave for a long time, making many tracks (spoor). Man, following after the animals, promptly obliterated these tracks with his own (which can still be seen in the rock today). An addition to the story is that man, when first in the cave, used his hands to hold up the roof of the cave, in case the roof collapsed. When man left the cave, he held up the sky, fearing that the sky would fall down (like the roof of the cave). Only later did man, tiring of holding up the sky with his hands, learn that the sky would not collapse. Another version is that man first sprang from a wetland or swamp with many reeds (Dornan, 1917; Wilman, 1918 and 1919; Miller, 1979; Tyrrell and Jurgens, 1983). A related description of creation events is briefly outlined in Setiloane (1998).

Dornan (1908), in a discussion of the Southern Sotho creation, gives much the same version as that of the Tswana. Dornan states that in the beginning both man and the animals came out of the bowels of the Earth by means of an immense hole, the opening of which was a cavern. The animals appeared first. Man emerged later and because of his ignorance was in a much worse situation than the animals. Man insisted on remaining near the hole for a long time and upheld the 'arch of heaven' using his hands, for fear that the sky would fall and crush him. Another detail is that men held their hands over their heads, fearing that the solid arch of the sky would fall and destroy them. A second version is that man sprang from reeds in a wetland at Nsuanatsatsi (note different spelling below). His footprints can be seen at this site (Dornan, 1908). Dornan (1917), in a slight variation, indicates that the cavern was at Ntsuanatsatsi.

The Sotho god, Modimo, could be approached indirectly via the ancestral spirits (Hammond-Tooke, 1993). Modimo was apparent in thunder and lightning, with *ledimo* meaning a 'storm, hurricane or whirlwind'. The root *-dimo* is found in the Sotho word for 'sky' (i.e. above) where Modimo resides. The Southern Sotho thought that all true Sotho came from a bed of reeds at Ntsoanasatsi or Ntsoanatsatsi/Ntsuanatsatsi Hill (= 'sunrise' or 'the rising sun'), from *tsoha* {'rise'} and *letsatsi* {'the Sun'} [explanation of *vernacular* terms provided by Raper, 2004]. Ntsuanatsatsi Hill is more commonly known as the 1 806 m high Tafelkop, which is situated to the south west of Cornelia in the Free State. A photograph of the hill can be found in Huffman (2007).

The names Molimo ('God') and Leseli ('Light') were used in ordinary speech by the Basotho to describe the supreme being (Ashton, 1967). Two other (and older) Sesotho terms of relevance are *leholimo* ('heaven') and *sebaka sa leholimo* or *maholimo* ('the firmament') (Casalis, 1905). Christeller (1994) gives the term *lehodimo* for heaven and Modimo for 'God'. The early missionaries, when they first arrived, were filled with joy on discovering that the Basotho had some notion of a supreme being which vaguely corresponded with the Christian concept of God (Ashton, 1967). This being was very distant, and was situated somewhere in the heavens. He was too remote and too aloof to pay much attention to man and his minor affairs, although prayers for his help were made in times of drought or sickness and by barren women. Ashton (1967) goes on to state that the old Basotho had little idea of a creator and it never occurred to them that the Earth and the sky could be the work of an invisible being. The old Basotho were not greatly concerned with this matter. 'God' was sometimes thought to manifest himself as lightning or a thunderbolt. A feast was held in honour of his visit when a village was struck by lightning. It is not impossible that there was once a greater knowledge of a traditional deity, although any details thereof have long since been forgotten (Ashton, 1967).

The Pedi, a Northern Sotho people, believed that Modimo (also known by his personal name of Kgobe) created the world and all the plants and animals (Mönnig, 1983). His son, Kgobeane, then made man. Creation thus involved two distinct and separate stages. Mönnig observed that the creation, more latterly, is viewed as one process for which Modimo alone was responsible. Modimo, concerning the act of creation, is also referred to as Mmopabatho or the 'creator of man'. Not much is known about the creation. Modimo is the giver of life, death and rain, but is not worshipped at all. He is remote from the daily life of the Pedi, although he is closely associated with wind, storms, lightning and hail. Werner (1933), in contrast to Mönnig (1983), described the Pedi high god or supreme being as Modimo o Mogolo (Modimo o Moholo), also known as Huveane who had a son, Hutswane. Huveane made the sky (*leratadima*) and the Earth. The sky was perceived by the Pedi to be a solid vault. Huveane came down from the sky to make the Earth and men. When he had finished his work, he climbed back into the sky by driving in pegs on which he put his feet. He removed each peg as soon as he stepped on the next one, so that the Pedi could not follow him. He has lived in the sky ever since (Werner, 1933). The Mamabolo or Mmamabolo, a Northern Sotho people of Zimbabwean origin, believed that the sky god Modimo went up to heaven on a ladder, from which he removed the rungs thereby ensuring privacy (Breutz, 1969). Some Northern Sotho thought that the sky and the cosmos were created by Kgotswane (note different spelling) or Kgobe, while other Northern Sotho believed that Hubeane (Huveane?) was responsible for these wonders (Breutz, 1969).

The Lovedu or Lobedu (also a Northern Sotho people) referred to their remote supreme being as Khuzwane, who was described as having made all things including man, and who left his footprints on certain rocks in the north at a time when these rocks were still new and soft (Krige and Krige, 1980). The Lovedu creation, according to Reuter (1905–1906), involved Kobe who created the world through his son, Kusane. One day Kobe went hunting with his son, and became very thirsty. There was no water to be had anywhere. Suddenly the pair discovered an accumulation of rain water in a tree. Kobe asked Kusane

to help him climb the tree. The son drove wooden pegs into the tree, so that his father could reach the water. Kusane, however, removed the pegs as soon as Kobe had ascended the tree. Kusane left his father trapped in the tree and went to spend the night with the wives of Kobe. The son fled the next morning when the wives realized who Kusane actually was. The Lovedu always hope for the return of Kusane. When he does so, war will cease and the *assegais* (spears) and axes will be turned into picks and ploughs. The country of the Lovedu will be in a state of peace, and all the chiefs will submit to Kusane willingly, without warfare (Reuter, 1905–1906). The creator of the Kgaga (another Northern Sotho people) was Khutšhaane (Hammond-Tooke, 1981); or Kutšhaane (Hammond-Tooke, 1993). He was a vaguely conceived and obscure entity who can probably be viewed as an ultimate explanation of the universe (Hammond-Tooke, 1981).

Modimo, according to the Tswana, was the creator of all things and the 'moulder' of destiny (Schapera, 1979). He was vaguely associated with the weather, and punished those who failed to observe the customs by sending heat, wind or hail, and by withholding rain. Modimo was very distant from everything, although the ancestral spirits could, at times, be implored to intercede with him. Breutz (1969), in discussing the Sotho-Tswana in general, stated that ideas and concepts concerning the sky and the Sun, as well as the origins thereof, were of very minor significance. It was occasionally said that the sky god, Modimo, created the sky and the Earth, although such beliefs may have been due to the influence of the missionaries. It was more often maintained that Modimo had nothing to do with this aspect of creation. Breutz (1969) was of the opinion that the word *Modimo* (meaning 'the one up above') was originally a taboo word, which should not be used by commoners and seldom by chiefs. The term *Modimo*, as per Breutz, was popularised by the missionaries. The Sotho-Tswana probably once had a different name altogether for this deity (Breutz, 1969). Brown (1921) briefly mentions some legendary being of 'long ago' known as Bila. There was also a dim and distant past, sometimes described as 'the time before Cose'. The latter being (Cose) appears to have been a 'mythical controller of the destinies of men', or 'the weaver of the web of life'.

The Lemba

The Lemba, also known as the Balemba; BaLemba; Basena; Basoni; Vamwenye, Varemba or Balepa, are found on both sides of the Limpopo River (le Roux, 1997). The Lemba, in South Africa, are primarily resident in areas settled by the Venda. The Lemba speak the language of the surrounding people, attend the local schools and may hold prominent positions in these populations (such as surgeons and medicine-men in respect of circumcision rites). The Lemba regard themselves as an offshoot of the Yemenite Jews, originating from a city known as Sena. The Lemba were, and still are, noted for their religious practices consisting *inter alia* of animal sacrifice, ritual slaughter, strict food taboos, circumcision rites and endogamy (only marrying their own people), all of which lend credence to their claimed Semitic ancestry, albeit embedded in an African culture. The Lemba, today, are mostly Christians although many traditionalists are still evident. The original supreme being of the Lemba was apparently Mwari or Modimo, with the ancestors providing a link between the people and this being. There is also a Semitic deity known as Mwari, Modimo or Jehovah (a belief based on the God of the Bible). A third New Testament concept is that of Jesus as the Son of God as well as the existence of the

Holy Spirit. Jesus is seen by the Lemba as a senior ancestor. It is related that God first made man from the same material as stones, and then made his wife. God instructed the man and woman to multiply. All the people were once killed by water; the Sun was dark and there was a great flood with the sea covering the land (a biblical viewpoint) (le Roux, 1997). It is virtually impossible in the current era to positively identify the old religious beliefs of the Lemba, which have become fused into a complex pattern, as indicated (le Roux, 1997; 2005).

One group of Lemba, on their long journey down Africa, established themselves at one time on the lower Zambezi River at a place they called Sena, in memory of their city of remote origin (le Roux, 1997; 2005). It seems that at least one other 'Sena' was built by the Lemba in Africa, prior to the Zambezi Sena. The Lemba, however, regard their *immediate origins* as being Sena-on-Zambezi. The Lemba believe that they were guided from the latter locality to the present-day Zimbabwe, and southwards to other places, by a star sent by Mwari (God). The star was a symbol of the presence of Mwari. (It is logical to argue that this star was bright and prominent.) Also symbolic of the proximity of Mwari was a sacred drum carried by the Lemba and known as *ngoma lungundu* or 'the drum that thunders'. Mwari spoke through the sound of the drum. The drum, being holy, could not be improperly touched or placed on bare ground. The drum contained sacred objects such as beads and was guarded at night by a mythical pillar of flame. Calamity was guaranteed if the drum was lost (le Roux, 1997; 2005).

The Lemba, traditionally, buried their dead with the head facing north (from whence they came: their immediate origins) (le Roux, 2005). The body was wrapped in an ox hide or white cloth and was placed fully stretched out on its side, or on its back, in a shelf or cavity excavated on one side of the grave. The grave should be 1.9 m deep. Water, as per tradition, must be poured in the grave once the body has been placed therein. The water symbolizes the fact that the Lemba crossed the sea by boat from Yemen to reach Africa (le Roux, 2005). The Lemba watched the heavens and knew the position in the sky of several stars (Mathivha, 1992). They divided the year into 12 months based on observation of the heavenly bodies. The Lemba, in the old days, held an annual Feast of the First Fruits in December after the first fruit (sorghum in one reported instance) had been harvested (le Roux, 2005).

Other beliefs

An alternative concept of African cosmology is promoted by the Kara Heritage Institute in Pretoria. Elements of the theory are said to predate, and to be incorporated in Ancient Egyptian and Ancient Greek culture. It is also stated that there is clear evidence of the philosophy in southern African settlements of some antiquity. Celestial bodies of significance in this concept include the Sun, the Moon, the Pleiades, Sirius, Canopus, Regulus, Orion's Belt, the Southern Cross, Mercury and Venus (Kara Heritage Institute website, accessed on the 18th of March 2011. See: http://www.kara.co.za).

The second part of the chapter examines the Sun as a particular heavenly body, again in terms of religious and other attributes. This section commences with some linguistic descriptions for the place of the rising and setting Sun. Additional concepts involving the Sun are discussed later in the chapter.

Linguistic terms used to describe east and west

The cardinal directions in South Africa in previous times were partly based on the Sun, as indicated below:

- **Northern Ndebele:** *buhlabalanga* = east (Skhosana, 2009) and *busubelalanga* = west. The term for the Sun is *llanga* (Ziervogel, 1959);
- **Southern Ndebele:** *ipumalanga* = east (Skhosana, 2009) and *itjhingalanga* = west (Shabangu and Swanepoel, 1989). The term for sunrise is *ukuphuma kwelanga* and that for sunset is *ukutjhinga kwelanga*. The word for the Sun or day is *ilanga* (Shabangu and Swanepoel, 1989);
- **Northern Sotho:** *bohlaba-tšatši* = 'where the sun pierces' or east; and *bosobêla-tšatši* = 'where the sun goes down' or west {*letšatši* = the Sun or day} (Lestrade, 1966). Kriel and van Wyk (1989) give the terms *bohlabatšatši* for sunrise and *phirimô* or *phirimatšatši* for sunset. Some other terms for sunrise and sunset, as per Kriel and van Wyk, have not been listed here;
- **Southern Sotho (Basotho):** *botjhabèla* = east and *bophirimèla* = west {*letsatsi* = the Sun or day} (Christeller, 1994);
- **Tswana:** *bophirimatsatsi* = 'place of the setting of the sun' or west; and *botlhabatsatsi* = 'place of the rising of the sun' or east {*letsatsi* = the Sun or day} where *phirima* = set and *tlhaba* = rise (D.T. Cole);
- **Tsonga:** *vurhonga* = *inter alia* 'east, dawn or daybreak'; and *vupela-dyambu* = 'west' {*dyambu* = the Sun or day} (Publications Committee, Swiss Mission in South Africa, 1988);
- **Xhosa:** *empumalanga* = 'at the coming out of the sun', where the Sun rises or east; and *entshonalanga* = 'at the sinking of the sun' or west {*ilanga* = the Sun or day} (Soga, 1931);
- **Venda:** *vhubvaduvha* = 'the place where the sun rises and which varies considerably with the seasons' or east; and *vhukovhela* = 'the direction of sunset' or west {*duvha* = the Sun or day}(van Warmelo, 1989);
- **Zulu:** *impumalanga* = 'where the sun emerges' or east; and *intshonalanga* = 'where the sun sets' or west {*ilanga* = the Sun or day} (Doke, 1928; Dent and Nyembezi, 1979). One way of describing the setting Sun is that it is the 'sun of the hyenas' or *ilanga lezimpisi*, specifically, when the Sun although down still shines on the more elevated hillsides (Bryant, 1905). A further term, *ilanga selidhliwe izizenze*, refers to the Sun which has now sunk below the horizon, i.e. it has been eaten up by the pygmies who live in its rays. The pygmies, according to Bryant, relate to the San who were once found to the west of the Zulu. One variant is that the San blinded people with the rays of the Sun. A similar interpretation is that when the Sun sets it is surrounded and attacked, broken into pieces, and consumed (devoured) by the San (Bourquin, 1986);
- **Swazi:** *imphumalanga* or east; and *inshonalanga* or west {*lilanga* = the Sun, sunlight, day or daytime} where *phuma* = 'to come' or 'go out' and *shona* = 'to sink, set, disappear' or 'be deep' (Rycroft, 1981). It is important to bear in mind that the

language spoken by the Swazi, namely: siSwati (the word is spelt in different ways) is linguistically regarded as a close dialect of the Zulu language (R. Bailey);

- **Khoikhoi (Nama in Namibia):** *soresta //hai /kxab* = 'the side on which the sun rises' or east; and *soresta ≠ga /kxab* = 'the side on which the sun sets' or west. The term for the Sun is *sores* (Schultze, 1907 cited by Schapera, 1965).

It is interesting to note that one of the traditional times of the day for the Xhosa was *xa kumpondo zankomo* when the light is only sufficient to reveal the raised 'horns of the cattle' in the cattle enclosure (*ebuhlanti*). This is when the 'day breaks' or *ukuthi qhekre* (Kopke, 1982). The equivalent Zulu time was known as *kusemphondo zankomo* or 'the horns of the cattle', i.e. about 04:00 (I. Msomi; G. and E. Pascoe). The Tswana name for this stage of the day is *mahubê a dinaka tsa kgômo* meaning 'the time when the darkness makes way for the light' (first light), and the outlines of the horns of the cattle are visible against the skyline (R. Pretorius; D.T. Cole).

Burchell (1824) provided the names of several celestial bodies in the Kóra or Kóraqua dialect. The language was that of the 'Kora Hottentots', specifically the Korana. The terms given were for the Sun; Moon; New Moon; Full Moon; the Moon decreasing, or in the last quarter; stars; the Pleiades, the three stars of Orion's Belt and the Morning Star (Venus). These terms constitute a very old orthography, however. An important point is that the names demonstrate that the Korana were familiar with such astronomical objects. Readers requiring solar terms in the various San languages are referred to websites listed in **Appendix E**. The same procedure is applicable for the seasons (see below) and the phases of the Moon. It should be mentioned that a comprehensive source of San words and terms in the form of a dictionary was compiled by Bleek (1956). The dictionary covers 29 San languages and dialects, some of which are represented by only a few words. The dictionary is rather complicated to use, and is best searched electronically. Tight binding, with words running into the spine of the book, is an unfortunate feature of the electronic copy of the dictionary. A number of Hiechware ('Tati Bushmen') words and phrases of relevance to this book can be found in Dornan (1917a). See also Barnard (1985) and Traill (1994) in respect of the Naron and the !Xõ respectively.

General solar beliefs

The San

A /Xam belief is that the Sun follows the spoor of the Moon across the sky (Hollmann, 2007). The Sun was once an old man who lived in a dwelling on Earth in the time of the Early Race. Rays of light shone from his armpit when the old man raised one arm. The light only illuminated the area around his home, with the Sun effectively lying in his own Sun. There was darkness everywhere when he lowered his arm. A major problem was that the 'Bushman rice' (winged termites) described further in **Chapter 5**, which the people collected as food would not dry out, since there was no warmth from the Sun (Hollmann, 2007; Wessels, 2008). The Moon at that stage was already in the night sky, although the sky was dark during the day, as if covered by thick clouds (James, 2001). Everyone walked around in the cold darkness because the Sun very selfishly refused to share his light (Hollmann, 2007). Four small boys of the First Bushmen threw the Sun into

the sky, where he now shines all over the Earth (Hollmann, 2007; James, 2001). The boys were sent to take this action by their mothers (or aunts) who, in turn, had been requested by their own mother to so instruct the boys (James, 2001). The young boys approached the powerful old man without making any noise, being careful not to wake him up from his sleep. The boys spoke 'strongly' to the old man as they ejected him into the sky, instructing and impressing upon him what he should become (a proper Sun), and where he should function without fail (in the sky). The boys thus brought relief to the people. James noted that the story revealed that the First Bushmen were clearly not as stupid or as lacking in understanding as might be supposed because they had arranged matters with the Sun. The behaviour of the Sun was contrary to later /Xam social norms, where the sharing of assets promoted peace and social cohesion. This strong social law was established in the very early times as the story of the Sun shows. It was the women who as the 'guardians of welfare and culture' had initiated the described event. Even the Sun must conform to the proper social conventions. The first sunrise, the result of the boy's actions, dispelled the darkness and was a wonderful spectacle (James, 2001). The Sun was angered to promptly discover that he was not alone in the sky, since there was also the Moon (Wessels, 2008). The Sun, like the /Xam in their daily activities, travels along a footpath or road in the sky (James, 2001). A different version is that the Sun and the Moon once lived on Earth where they spoke to each other, but no longer do so as they now live in the sky (Krog, 2004; Wessels, 2008). Further commentary on the Sun is given in Wessels (2008).

Lions, as we have seen, could undertake magic particularly at vulnerable points like a waterhole (James, 2001). Flies warned the lions when the people left to fetch water. Lions could influence the Sun to set quickly in order to catch people who were away from home. This mythology is grounded in reality since lions, in the past, were a constant threat to the /Xam. Care had to be taken at waterholes (James, 2001).

Schapera (1965) maintains that religious worship amongst the /Xam largely concerned the heavenly bodies, particularly the Moon (**see Chapter 3**). Prayers were also addressed to the Sun and the stars (**refer to Chapter 5**). The Sun, according to Bleek (1929), was seldom appealed to by the /Xam, although one prayer to him for food has been recorded.

Do Sun come out,
That we may see,
Do Sun rise for us,
Do, Sun, come out,
That we may see to seek a springbok.

An important new source of information regarding the /Xam, including the heavens, has only surfaced fairly recently. The information was collected in the Calvinia-Bushmanland region of the northern Cape (*circa* 1880–1883) by G.R. von Wielligh (1859–1932), an Afrikaans-speaking land surveyor. The information was published in a book format in four parts in 1920 and 1921, and was republished in two volumes in 2009 and 2010 respectively (von Wielligh, 2009; 2010). Comments on some of the stories (in English) can be read on the Psychohistorian website, accessed on the 8th of March 2011. See: http://www.psychohistorian.org. A brief discussion of von Wielligh's material can be found in Koorts and Slotegraaf (2007).

One /Xam story transcribed by von Wielligh (Deel I: 1921) and given in translation by Koorts and Slotegraaf (2007) is reproduced here. The story involves the origin of the Sun. There are a number of similarities and differences in terms of the first account outlined above, which was recorded by W.H.I. Bleek and Lucy Lloyd (see later in the chapter). Both stories were collected at much the same time in the late 19th century, and from informants resident in the same geographic locality. It is related that Dancer, the Fire-Man or the Fire-Maker, was once a man of the Ancient Race. Light shone from his head. He put fire into stones, in wood and in clouds. Hunters followed him to see where the game was, although he could be lazy at times and refuse to cooperate. The hunters, due to frustration, killed him one day as he stood next to a river. He fell into the water, resulting in his light being extinguished. The hunters cut off his head and put it on the river bank. His light, however, do not return. The head later began to dry out. A woman saw the head and sent her children to throw the head into the sky, where it became the Sun. The decapitated body is still searching for its head. The body has long since withered and turned into a crab which scuttles around at the water's edge. The head, in turn, is constantly looking for its body. The search commences in the mountains in the morning in the east, moving to the sky, and then extending to the mountains in the west in the evening. The Sun is thus the head of Dancer (Koorts and Slotegraaf, 2007).

Hewitt (2008), drawing on von Wielligh (Deel I: 1921), provided another perspective on the Sun. The /Xam, while regarding the Sun as a source of light and warmth, also perceived the Sun to be a hunter who was well fed, and who could afford to leave his surplus game to others. The /Xam prayed to the Sun in the early morning, before hunting commenced, to steady the hunter's arm so that he could aim properly at the game. Another prayer was uttered in the early evening asking the Sun to remain with the people since they feared the beasts of prey at night, when it was also very cold. The Sun was asked not to stay away for too long (Hewitt, 2008).

The next set of information concerns the Nyae Nyae !Kung in Namibia. Nyae Nyae is an area close to the eastern border with Botswana, and is to the north of Gam (the latter locality can be found in any good atlas). Other !Kung live just across the border at Dobe in western Botswana. The border (a man-made barrier) divides the !Kung. The Nyae Nyae !Kung believe that under the existing world there is another world, exactly like the present one (Thomas, 1959). The world below has the same landscape features and people as well as a Sun and a Moon. The sky of the nether world is the bottom of the existing world. There is no other link between the two worlds, with the possible exception of certain deep waterholes. The reason is that ≠Gao N!a (the great god) used such a waterhole to climb up from the world below when he first came to the present world. Thomas goes on to explain that in !Kung thought there is nothing above the sky of the current world, which implies that all the celestial bodies are in the sky (i.e. not beyond it). The Sun is not only meat (see below) but is also a death-giving agent, and is male (Thomas, 1959). The Nyae Nyae !Kung in more recent times still think of the Sun as a 'death-thing' in terms of searing heat, hunger, thirst and exhaustion (Marshall, 1986; 1999). The Sun desiccates the land and causes many difficulties for the !Kung. These include trapping the people at their few permanent waterholes when the smaller waterholes have dried up. The *veldkos* ('veld food') can become exhausted around such waterholes, prior to the rains renewing this

resource, possibly resulting in starvation. The Sun, nevertheless, gives welcome light. The !Kung believe that the Sun, in addition to its devastating heat, also has supernatural power or *n/um*. The *n/um* of the Sun is so strong that it is dangerous. The people consequently fear and respect (*koa*) this power (Marshall, 1986; 1999).

The Sun must be strictly avoided by the !Kung during two important rites of passage (Marshall, 1986). This celestial body must not shine on a bride on her wedding day, nor must it shine on a girl undergoing the rites associated with her first menstruation. If a girl in the latter instance fails to observe this avoidance procedure, then the Sun will become very hot indeed and burn up all the plant food (Marshall, 1986). Thomas (1959), in a further statement, explained that it was customary in !Kung rites for a person in a transitional (vulnerable) phase of life to be elevated above the ground and hidden from the Sun. This included new-born babies and the dead, where the deceased was covered and raised from the ground before burial. Since the Sun brings death no marriage ceremony or any part thereof can be performed when the Sun is strong. Proceedings can only commence in the evening once the Sun is setting (Thomas, 1959).

The Nyae Nyae !Kung explanation for the daily passage of the Sun is intriguing. It is related that the 'knee knee nothing' or *kwa kwa kwara* people live in the west (Thomas, 1959). These people have no knee joints and must always stand up. As the Sun sets in the evening, so the people with no knees catch and kill it, since the Sun is meat. The Sun is placed in a pot. The children are instructed to run away and play when the Sun has been cooked. The adults then eat the Sun. The children, once they return, are fed on the teeth-pickings of the adults. The people with no knees, thereafter, take the shoulder blade of the Sun and throw it back into the east again, where a new Sun grows and rises in the morning. Nothing is heard if a tall man throws the Sun back, although the Sun makes a whirring noise overhead if a short man undertakes this task. One !Kung informant claimed to have visited the people with no knees in the west. He was very curious to see how they slept at night (not being able to lie down) because they had no knees. Once darkness came the people, after having eaten the Sun, leant against the forks of trees where they rested in a propped-up position (Thomas, 1959).

A very similar !Kung account can be found in Marshall (1986), although the supernatural people are *n/um* people who are known as the !Koa !Koa Kwara or the 'Knee Knee None'. Each evening when the Sun falls to the Earth, it becomes an elephant which is killed and eaten by the Knee Knee None. The very red colour of the Sun in setting is the meat of the elephant. The Sun is the food of these people. While the meat is cooking the people dance the Sun Dance (**see Chapter 4**). The children only receive the bits of meat which the adults pick from their teeth. The clavicle of the elephant, once thrown back into the sky to the east, falls into a body of water (near the place of sunrise) where it sleeps. The bone recreates itself as it sleeps. The strong *n/um* of the Sun and the *n/um* of the people makes this occurrence possible. The Sun, in the morning, emerges from the water and attaches itself to a tree which grows nearby. The Sun drains itself of water in the tree for a short while and then rises into the sky. The Sun is yellow in colour, and is cool at first due to the water, but soon becomes hot (Marshall, 1986). The tree is the Camel Thorn or Kameeldoring (*Acacia erioloba* = *A. giraffae*) which is very common in the Kalahari.

The !Xõ regard the Sun as a man because it is hot and wishes to burn or kill the people (Heinz, 1975). The !Xõ do not like the Sun for this reason. The !Xõ have a very similar story to that of the !Kung about the daily movement of the Sun. The Sun is eaten every evening by a man and his wife, since it is good like eland meat. The children are usually sent to collect water, and on their return, are fed on the teeth-pickings of the adults. These pickings are large because the parents are very large. The man and his wife, who have eaten all the meat, throw the shoulder bone to the east and from there it grows towards the west (Heinz, 1975). Marshall (1986) provided a slightly different !Xõ version of the myth. The supernatural people in this case are known as the 'Malay'. They have no hair on the tops of their heads and sleep during the day, but not at night. The Sun is an Oryx or Gemsbok (*Oryx gazella*). The children are two small girls who are sent to fetch water from the waterhole. The adults eat the meat while the girls are absent, and give their teeth-pickings to the girls to eat when they come back. The girls, in turn, refuse the pickings stating that they are insufficient. The meat particles are thrown back together with the clavicle of the gemsbok. The particles and the clavicle combined become the Sun once more. When the Sun falls to Earth the next day and turns into a gemsbok the people again kill it. The adults send the girls to the waterhole and cook the meat in the water brought by the girls the previous evening. The same scenario as before takes place (Marshall, 1986).

Some Naron resident on commercial farms in the Ghanzi district of Botswana think of the Sun as a mythical rhinoceros which strolls across the sky from east to west (Guenther, 1986). The Sun is killed, roasted and eaten by the people in the west, who once they have finished their meal, throw the shoulder blade to the east. During the night the shoulder blade changes into a rhinoceros once more, and resumes its day-long journey to the west (Guenther, 1986). It should be explained that the Ghanzi farm Naron are somewhat culturally-compromised. These Naron are no longer culturally pure due to intermarriage and close relations with other San groups as well as interactions with whites, Africans, some Nama and coloureds (Guenther, 1986). The same is not true of the Naron described by Marshall, however, who at the time of Marshall's work still retained most of their old ways.

The G/wikhwena ('bush people' or 'people of the thorn forests') live in the central Kalahari, and are neighbours of the Naron (Silberbauer, 1981). Silberbauer shortened the name of these San to G/wi, although other anthropologists prefer to use Gwi or /Gwi. An older name is Gikwe. The G/wi (the term used in the present volume) are linguistically and culturally linked to the nearby //Gana or G//ana. The G/wi and the //Gana are sometimes collectively known as the G/wi-G//ana (/Gwi-//Gana). The G/wi word */amsa* means 'sun' and 'day' which refers to both a unit of time and a contrast with night, and also means a hot, dry inhospitable region and a drought-stricken wilderness (Silberbauer, 1981). The Sun is the only celestial body which is of major importance to the G/wi. The Sun is the object of the resentment felt by the people especially during the hot and dry season or *!hosa*. Complaints are voiced that the Sun is 'killing' the people. The hot unpleasant conditions are used as a reason not to undertake certain things except in the winter months. The Sun is thought to be the cause of any misfortune due to heat and drought. The Sun is controlled by N!adima, the supreme being or great god of the G/wi. The G/wi address the Sun in terms of a short formula: 'It is terribly hot, it is terribly hot, pass on, this is *!hosa*'.

The G/wi reject the notion that the formula is a prayer intended to persuade the Sun to hurry along and to bring the following season. The formula is actually intended to show respect for the Sun as a very powerful creation of N!adima, and to make it clear that the Sun is not being slighted by complaints about the hardship it is inflicting on the people. (It is regarded as a serious matter to curse the Sun.) It is perfectly acceptable to complain about the Sun, nevertheless, given that the formula will rectify the situation. Any stronger language will anger N!adima who will do something much more severe than the Sun at its worst can achieve. The G/wi regard natural phenomena which are hot or cold, or barren or destructive, or inferior as female. This category includes the Sun, the seasons and the waning Moon. Natural phenomena which are harmless, fruitful or beneficial, in contrast, are male and include the waxing Moon (Silberbauer, 1981).

When the Sun sets in the west, darkness is caused by the shadows of the trees in that far country (Silberbauer, 1981). It is said that N!adima makes the Sun go down to this country in order to make these shadows. The resulting darkness enables man and the animals to sleep and also allows the nocturnal animals to move around in the dark. Another reason for the darkness is so that N!adima can catch the Sun and eat its top (or outer) body. It is unclear whether N!adima does this for nourishment, or whether this action is to prevent the Sun from getting up again in the night. Both reasons were advanced by some of Silberbauer's informants, which suggests that the dual objectives are relevant. The 'true body' of the Sun is then carried by N!adima to the far country in the east. The passage of N!adima and the Sun can be detected after dark when a 'swishing sound' in the sky can be heard by a person who listens very carefully. The Sun rises up into the sky the next morning, having regenerated its previously depleted 'top body'. The Milky Way, interestingly, is one of the paths used by N!adima to carry the Sun (Silberbauer, 1981).

N!adima, in winter, moves the daily course of the Sun further to the north, resulting in less heat from the Sun (Silberbauer, 1981). [There is a clear link here between cause and effect.] One analogy used by the G/wi to explain this state of affairs refers to a fire. The further away one stands from a fire, the less is the heat of the fire. The higher the Sun is in the sky, in other words, the closer it is to the G/wi, and the hotter is the day. Conversely, the lower the Sun is in the sky, the less is its heat. This understanding applies to the winter and summer Sun and also to the time of day (i.e. sunrise or sunset versus midday) (Silberbauer, 1981).

A less impressive G/wi interpretation of the rising and setting Sun was provided by Marshall (1986; 1999). The G/wi, according to this version, think that the Sun falls to the ground when it sets, and somehow during the night returns to the east under its own power. The great god made this so. This description is much the same as that of the Tshimbaranda !Kung (a particular !O Kung group in southern Angola), some Naron (not the Ghanzi Naron) and the //Gana who can only say that the great god takes the Sun back across the sky at night, but they do not know how this is done (Marshall, 1986; 1999). A further G/wi account, related by the 'old people', is that the Sun moves around the edge of the Earth at the horizon (Marshall, 1999). The Sun goes from the west via the south to the place of sunrise in the east. Note that Marshall (1986) referred to the Tshimbaranda !Kung as the Chimbaranda !Kung.

Marshall (1986; 1999) explained how the Sun was made by the great god of the G/wi, whom she describes as N!iriba, also known as Pisiboro. There was only night before the Sun existed. N!iriba, in order to create the Sun, made a *zini* (a certain kind of toy). N!iriba took the feather of a large bird found in the Kalahari (a korhaan) and shaped the feather into a nice, evenly curved object by using a coal to burn the edges. The great god tied the feather to a reed by means of a cord, and then tied a glowing coal to the reed with the coal acting as a weight. N!iriba twice threw the *zini* into the sky using his stick, but the *zini* fell back to the ground on both occasions. N!iriba tried once more and tossed the *zini* very high into the sky, where it stayed, becoming the Sun. There was day and night and N!iriba had light. N!iriba, since there was light, went hunting. He saw an eland and stalked the animal by crawling on his hands and knees. The Sun, unfortunately, had made the Earth so hot that N!iriba's knees were badly burnt. The great god shouted and cried out with pain for a long time. A tree sprang up while N!iriba was thus engaged. This was the first tree ever to rise up from the ground. Trees of the same type exist today and have edible berries and thorns which grow in pairs. N!iriba stood in the shade of the tree with other trees springing up as he was resting. N!iriba shouted for more trees to come up, explaining that he had burnt his knees while stalking the eland. He needed to rest in the shade of the trees, and when again stalking wanted to hide behind the trees. N!iriba slept that night, and in the morning there were trees to be seen everywhere. That is how the G/wi find trees to provide them with shade (Marshall, 1986; 1999). The bird mentioned above is very probably the Red-crested Korhaan or Boskorhaan (*Lophotis ruficrista*). It is worth noting that the male bird, in courtship display, flies straight up and suddenly tumbles and plummets towards the ground, before gliding off and settling (Sinclair and Hockey, 1996). The protracted call of the male is a characteristic sound of summer. Another G/wi version of the creation of the Sun was provided by Gall (2002). Pisamboro, Pishiboro or Pisiboro saw a red-hot coal under the wing of Ostrich. An intrigued Pisamboro stole the coal and used it to give fire to man. Pisamboro then threw the red-hot coal high into the air. The coal fell back to Earth twice, but remained in the sky the third time to become the Sun (Gall, 2002).

A belief common to certain San and the Tswana is that the Sun, in the evening, draws his blanket of darkness over himself to keep warm (Miller, 1979; Player, undated). The blanket, being old, has many small holes. The Sun's rays shine through the holes in the blanket, forming the stars. A poetic Heikum description of dawn is: 'When the white bull tears the black blanket of the night with his red horns' (Schoeman, 1961).

The San, with a few exceptions, erected temporary settlements, given that their lifestyle involved a constant search for food within a particular geographic locality, or sometimes in a different locality altogether (Schapera, 1965). Those resident in mountainous terrain usually lived in caves and beneath rock shelters. Fixed villages were only found in the aquatic Okavango-Zambezi environment, albeit with separate quarters for winter (the dry season) and summer (the wet season), due to flooding of the landscape. Temporary settlements, sometimes consisting only of a windbreak or shelter (*skerm*), were located within walking distance of a waterhole. The San never lived at the water source itself for fear of frightening the game, which was most easily shot or trapped while drinking. All the families drinking from one waterhole lived in a group, or alternatively resided in a number of huts scattered about in various directions. A typical /Xam settlement, for

instance, often consisted of three or four huts standing together, or several huts dotted about within a specific radius of a water source. The same pattern was probably also the case for the Naron. A marked exception was the Heikum whose settlements were said to be laid out according to a definite plan. All the members of the Heikum band, as a rule, lived in a common encampment or 'werft' (*//gaus*). The settlement was arranged in the form of an irregular circle with a large tree or *!heis* at or near the centre of the camp. The tree served as the meeting place of the men for ceremonial and other purposes. The hut of the chief (*gei-khoib*) was always situated to the east facing the other dwellings, although some distance away. Schapera (1965) also referred to the !Kung who had a similar residential arrangement. The huts of several !Kung families living together were arranged in a circle, with the head of the band living in the east of the settlement. The reason for an easterly preference was not explained. San dwellings were much less robust and substantial than those of the Khoikhoi (Schapera, 1965).

Schapera (1965) described a number of San burial ceremonies, which varied somewhat from group to group. Of interest here are the rites performed by the Naron. As soon as someone died, those present cried out in a short and distinctive manner thereby advising the rest of the settlement of the death. The body was wrapped in the *kaross* or mantle (leather cloak) which the deceased had worn while alive. The body was arranged in a contracted position, with the knees bent up against the chest, and with the arms crossed and the hands placed on the shoulders. The deceased was tied up with rope to facilitate the transport of the corpse. The body was put near the fire while the women lamented over it. Burial took place as rapidly as possible after death. The body was buried the next day if death occurred during the night, or later in the day when death struck in the morning. A deep and round grave was excavated by hand and by means of a digging-stick in soil which was not too compacted. Two or three men carried the corpse to the grave. One man climbed into the grave to receive the body as it was lowered down using ropes. The corpse was positioned lying on its left side and facing east. The Naron did not know the reason for this customary orientation. The deceased was buried wearing all his or her clothing and ornaments. The possessions of the deceased were put in the grave. Objects such as a bow or spear, which were too long to fit into the grave, were hung on a nearby bush. The grave was then filled. Bushes or stones were placed on top of the grave to prevent wild animals from gaining access to the corpse. The entire settlement was present at the burial with the women weeping. A close relative of the dead person burnt *buchu*, evidently Bitter Buchu or Bitterboegoe (*Diosma* spp.) on the grave the next day and said *tabete* or 'Goodbye'. The settlement was moved to another locality and the burial site was avoided for a couple of years. No one remained in the vicinity of the grave for fear of the ghost of the deceased.

Guenther (1986) described the contemporary burial rites of the Naron living on farms in the Ghanzi district of Botswana. Burial takes place later in the day if death occurred in the early morning, or more commonly in the late morning of the following day. A grave about 2 m deep is excavated with an east-west axis. A narrow chamber is dug lengthways at the base of the grave. This procedure has been adopted from the Tswana, who place the body in the chamber to prevent the deceased from 'suffocating' when the grave is filled. The body is wrapped in a blanket by the Naron and is placed in the chamber with the head

facing west. No personal possessions of the deceased are put on the grave. The dead are buried in a designated graveyard near the residential village of the farm staff.

Schapera (1965) observed that the burial customs of the Auen in the past appeared to be generally similar to those of the Naron. The !Kung bound the corpse in the same contracted position as already described. The body, according to one report, was smeared with ochre. The round, shallow and narrow grave was dug by the men, preferably below a termite mound. Another suitable spot was selected if no termite mound was evident. The base of the grave was covered with branches, which was followed by a layer of grass on which the deceased had last slept. The corpse was buried lying on one side. One writer maintains that the body did not have any particular orientation, while another states that the back of the corpse was towards the east. The possessions of the !Kung dead were placed in the grave. The reason was that the living did not want to make any further use of those items which had belonged to someone they had loved in life. There was no belief that these possessions would be used by the deceased in the future world. The San in the eastern Kalahari often buried their dead in the termite mounds which are common in the landscape. A hole was excavated in which the body was placed in a contracted position. No mention was made of any given orientation of the body. Schapera (1965) also referred to 'tame Bushman' (seemingly culturally-compromised San) who buried their dead in much the same way as the Tswana. A round hole about a metre deep was dug with a recess on one side. The body was placed in the recess either sitting or lying on its left side, and with the knees doubled up to the chin. The grave was usually located near the place where the deceased had lived. There was again no specific orientation of the body, with some placing the deceased facing east, and others not. Such San sometimes used the cleft of a rock or a termite mound as a burial site (Schapera, 1965).

The Heikum procedure, still current as late as the 1950s, was to bind the body in a sitting position immediately after death, with the hands between the knees (Schoeman, 1961). The deceased, thereafter, was lowered into a round grave with the face towards the rising Sun, where the new day is born. This was the direction or locality where Eliob (i.e. Erob the supreme being) threw the San away in the bush. It is related that Eliob first made the white people. Since they were his first children, he gave them many things in abundance such as cattle, horses, water and land. There was still a great deal of Sun left, so Eliob made the black people. He gave them a few cattle, no horses and not much water. The supreme being could see that there was still a little sunshine left, so he quickly made the San. By that time he was tired, and threw the San away in the bush where they remained (lived). Eliob gave the San a small bent axe to obtain *veldkos*, but which was taken away by the black people. The San were left with only a digging-stick for this purpose (Schoeman, 1961). A similar story is related by the !Xõ where the creator first made all the people alike, but later divided them into different peoples (races), some to work for others (Heinz, 1975). When the creator first made man he began by creating the white man, then the black man and finally the San. The San were created from the remaining pot scrapings, which is why they are so small (Heinz, 1975). Several versions of the same type of myth are evident amongst the Naron resident on farms in the Ghanzi district of Botswana (Guenther, 1986). These stories reflect the poor self-image of the San in a social and racial context, where the San see themselves as definitely inferior to other races (Guenther, 1986).

More contemporary burial rites, in this case of the !Xõ in 1974, were described by Heinz and Lee (1978). The closest relatives of the deceased chose a site for the grave which was very near to the settlement. The relatives measured the body and dug a grave about 3 m deep. The grave had an east-west orientation. A recess or niche was hollowed out on one side of the base of the grave. The body was placed stretched out in the recess, with a cushion under its head. The head of the dead person was at the western end of the grave. This was the direction in which the ghost of the deceased would leave the body. The side of the recess was closed off using branches and leaves to protect the body from falling soil. The members of the settlement, including children, each threw a handful of soil into the grave. Two long vertical sticks, extending above ground, were placed in the grave, which was then filled. The mound of soil was shaped and tidied up. A piece of wood was attached in a horizontal position to the two protruding sticks. Branches were subsequently piled over the mound. The men who had dug the grave made a small fire next to the grave and intoned a prayer during which they said farewell to the deceased, and appealed to the !Xõ creator (Gu/e) to look after the people and to ensure that they were well-supplied with meat and *veldkos*. The grave-diggers were required to purify themselves by washing their hands in medicated water provided by the father of the deceased. A fear of graves was still current at the time, with the !Xõ avoiding these sites and seldom returning thereto. Graves were readily identified by the heaped branches and the two upright sticks (Heinz and Lee, 1978).

Heinz (1986) in a further discussion of the same burial stated that the corpse was placed on its side. The head was supported by a pillow, a bundle of rags, or something similar. The corpse, in the old days, was buried with the knees drawn up, although this is no longer the custom. The reason for the head facing west was so that the deceased could walk to the setting Sun in order to reach Gu/e. Heinz pointed out that this was an anomaly since !Xõ traditional religious beliefs dictated that the soul or spirit (*/aa*) of a dead person was fetched by the children of Gu/e. There is also a belief that the spirit can be removed by a lesser deity (/oa) and taken up into heaven (**see Chapter 5**). A related issue is that the grave must be in the shade, so that the body is protected from the hot Sun. Heinz indicated that the viewpoint of the particular San under discussion (the !Xõ resident at Bere) seemed to be that the whole body went to Gu/e, hence the need to avoid the damaging Sun. Also relevant is that the pillow was needed to cover the ears of the corpse, thereby keeping sand out, and permitting the deceased to hear the sound of a man making a fire and to help him in this task. The small fire at the base of the grave, which must be made in the old customary manner, served as an intermediary between the praying men sitting around the fire and Gu/e. The dwelling of the deceased was left alone after the burial, with the entire settlement moving to a new site. There were two types of ritual purification: (a) for those who had touched the corpse or buried it (the men), and (b) for the women and children who had come close to the grave to bid the deceased goodbye. Medicated water with three different medicines was used for purification by the men, although one component (the hunting medicine) was withheld for the women and children. Heinz (1986) also referred to some San living considerably to the north of Bere who claimed to be !Kung. These San buried their dead in a north-south position, with the head to the south, but with the face and stomach facing west.

The Khoikhoi

The Khoikhoi, from early childhood, were accustomed to finding their way in the countryside (Schultze, 1907 cited by Schapera, 1965). As children, the Khoikhoi used adjacent objects such as clumps of bushes, trees and rock formations as navigational tools. The Khoikhoi man with a family wandered from one waterhole to the next, seeking pasturage for his livestock. His aim each day was to find a suitable spot relatively close by, before venturing further afield. The Khoikhoi used the Sun as their primary way-finding mechanism, with the result that familiarity with the stars was somewhat restricted. We have already seen that east and west was determined by the Sun. Much the same applied to north and south. Both directions have a common name (*soresxo !nab*) since the Sun shines on (*!na* = 'in') the cheeks or *xob* when one is facing in either of these directions. Likewise of directional significance was the south wind (*!kxabagab*), the north wind (*/abas*) and knowledge of previous visits to a given locality. The calendar was based on the changes in the seasons, the phases of the Moon and the daily position of the Sun. The people were well acquainted with the year or *!gurib* as a single time frame of seasonal variation, although the year had no calendrical and numerical quantity. The age of the livestock, via calving and lambing, was one means of marking shorter periods of time (i.e. 'a year'). The overall passage of time was reckoned by past events such as the birth of children, outbreaks of livestock diseases, and hostilities with others in the vicinity (Schultze, 1907 cited by Schapera, 1965). The above information refers to the Nama in Namibia.

Johannes Gulielmus de Grevenbroek, an early Dutch official at the Cape and later a free *burgher* (citizen), was a close observer of Khoikhoi customs, language and way of life (Schapera, 1933). De Grevenbroek maintained that the Khoikhoi (evidently the Cape Nama) worshipped the Sun and perceived this celestial body to be the source of all that was good. The Cape Nama and Korana name for the Sun was *sores*. The opinions expressed by de Grevenbroek were much the same as those of Willem ten Rhyne, a Dutch visitor to the Cape in 1673. Ten Rhyne spent nearly a month at the Cape and took a close interest in the Khoikhoi and their culture. Ten Rhyne stated that the Khoikhoi worshipped the rising and setting Sun, and sometimes went down to the river. The Khoikhoi used clay found at the river to make 'whole mounds of little balls', which they threw into the water with vigour, while making a great noise. These actions were in honour of the Sun. Hahn (1881) cited by Schapera (1933), however, makes it clear that the objective of worship was not the Sun, but the Khoikhoi supreme being Tsui //Goab. The Khoikhoi informed Robert Moffat, of the London Missionary Society station at Kuruman, that the Sun was cut to pieces after it set (Kidd, 1904). The Sun was then fried in a pot, and was put together again in the morning. The Sun has to move in the sky to make way for the Moon.

Teeth featured to some extent in Khoikhoi beliefs about the Sun. Khoikhoi diviners, as one example, threw an old tooth towards the setting Sun in order to produce an evil effect (Laidler, 1928). Another instance was when a child lost a milk tooth. The child took the tooth, stood facing the rising Sun, and repeated the following words: '*Dassie, take my bone tooth and send me a stone tooth*'. The named animal is the Rock Hyrax/Rock Rabbit or Dassie/Klipdas (*Procavia capensis*). This formula was part of Khoikhoi preventative medical lore which involved charms and incantations (Laidler, 1928).

Stow (1905) discussed Khoikhoi and Korana beliefs that their forefathers came from the far north eastern interior of Africa, where they lived in a land with an abundance of water and with all good things required by a pastoral people. The locality was an earthly paradise. Stow indicated that this description appears to refer to the Great Lakes region in central Africa. The Khoikhoi and Korana were forced out by a stronger people who came down from the north. The Khoikhoi moved towards the south west until they encountered the Atlantic Ocean, a few degrees south of the equator. They gradually spread themselves along the west coast, dispossessing the original occupiers of the land. The Khoikhoi eventually reached their southern limit at the Cape. Most of the Khoikhoi settled between this point and the lower part of the Orange River. The slightly different Korana version has it that the Korana fled from their original home towards the setting Sun, only changing direction when they saw the sea. They turned south, moving along the shore, while keeping the ocean on their right hand side. The country through which they passed was unoccupied or was inhabited only by immense herds of game and a few scattered San communities. The Korana slowly migrated along the coastline until they reached the Cape districts, where they settled and lived for some generations. The Korana were emphatic about their place of origin far north in Africa (Stow, 1905).

The Khoikhoi preference for the east extended to their housing as indicated above. In previous times the main encampment of the Khoikhoi was in the form of a great circle, which was enclosed by an imposing thorn fence (Schapera, 1965). There were two gateways, one to the north and the other to the south. The huts or *omi* were arranged around the circumference of the circle facing inwards, and overlooking a central open space which served as a livestock fold at night. The huts of the chief (Cape Khoikhoi = *kouqui* or *khoeque*; Nama = *gao-aob*) and members of his house were located in the western part of the circle, facing east (Schapera, 1965). Schapera (1933), in turn, states that the movable huts of the Khoikhoi were made of poles forming an arch, resembling a tortoise shell, and were covered by skilfully woven mats of reeds or sometimes animal skins. The small door, a metre or so in height, always faced east (Schapera, 1933); or the rising Sun as per Engelbrecht (1936) who referred to the Korana specifically. Schapera (1965), however, indicated that the main entrance to a Khoikhoi hut was usually opposed to the direction of the prevailing wind. There was a smaller opening on the other side of the hut. The position of the opening was easily changed from one side to another, depending on the direction of the wind, by adjusting the mats. The difference of opinion here is impossible to resolve after so many years.

Burial for the Nama in Namibia usually took place in the afternoon following the day of death (Schultze, 1907 cited by Schapera, 1965). A rectangular grave was excavated with a long narrow niche along one side. The body was placed flat on its back in the niche with the head facing west, and with the grave itself on the right hand side (Schultze, 1907 cited by Schapera, 1965). Others writers, including Hahn (1881), reporting on burial customs in older times, stated that the body was placed in a squatting position with the head always facing east. The latter appears to have been the desired posture in the more distant past.

The smallest unit of time for the Nama was the day (*tsẽs*) and the night or *tsũxub* (Schultze, 1907 cited by Schapera, 1965). The length of a journey was always spoken of with regard to

days and nights. Only midday (*tsẽ !gãb*) was of significance for the hours of the day, while the only distinguished point of night was midnight or *tsũxub !gãb* meaning 'the back of the night'. The notion of morning or *//goagab* and afternoon or */uiab* was only approximate. The limits of the day and night, nevertheless, were important. Morning twilight was known as *//goa !aroam* and evening twilight as *!uitsũxubab*. Morning brightness or 'the time of clear day shortly after sunrise' was referred to as *!kxai //goagab*, since it is about dawn (*//goab*) that it is usually most perceptibly cold (*!kxai*). Evening brightness or the 'red twilight' was called */aba /hobob*. Another relevant time was that of the 'little children's twilight' or *≠kxam-/goa-/hobob*, which was the term used by some Khoikhoi for the first noticeable dimming of light after sunset. It was believed that most children (*/goan*) were born at this hour. A distinction was made between evening (*!uib*) and late evening or *!oes*, which extended until long after sunset (Schultze, 1907 cited by Schapera, 1965).

The Northern Sotho

The Sun was regarded as a large burning disc which passes over the sky (*leratadima*) from east to west (Beyer, 1919). There was a new Sun every day, with the old Sun disappearing at the end of the day, to be followed by another Sun the next morning. Beyer states that the Northern Sotho constantly watched the Sun and always knew where north (*letzweta*) and south (*borwa*) lay. The Northern Sotho were thus never uncertain about direction when travelling (Beyer, 1919). Breutz (1969) and Mönnig (1983) confirmed that the Northern Sotho had once believed that a new Sun appeared every day. One Northern Sotho informant advised Breutz (1969) that the Sun moves 'on its underground orbit'. The course of the Sun resembles a river, and 'has water through which the sun revolves'. The Sun was regarded as male, given its cruelty and lack of mercy in burning both man and plants. Mmatšatši is a common name for girls born in summer amongst the BaPhalaborwa, a Northern Sotho people resident in the environs of Phalaborwa in Limpopo Province (Makhubedu, 2009). The name is derived from *mma* meaning 'mother' and *tšatši* (from *letšatši*) meaning 'sun'. The equivalent name for a boy is Raletšatši, which also signifies that he was born on a sunny day.

The Lovedu maintained that the Sun originated in the Lovedu country of Modjadji, the Rain Queen (Breutz, 1969). A year in which the Sun was very hot and rainfall poor was ascribed to the anger of the Rain Queen, resulting in the Lovedu dying of heat. Delegations of Northern Sotho from elsewhere, in such circumstances, made their way to the Rain Queen to pay tribute in the form of cattle, and to beseech her to 'stop the sun' and make rain. One of the praise names of Modjadje (Modjadji) is the 'The Ruler of the Day or the Sun' (Reuter, 1905–1906). The name is derived from *ledjadje* (singular) and *madjadje* (plural) meaning 'day or sun'. *Mo* is the personal prefix in this case.

Various important rituals were carried out by the Kgaga to help and to strengthen a recently born child against disease (Hammond-Tooke, 1981). Also of significance was the first introduction of the child to the outside world, when it was shown to the Sun rather than to the Moon. The baby, on seeing the Sun, was henceforth declared to be a person (a member of the family). Any miscarriage which occurred between the third and ninth month resulted in the body of the child being buried in the hut itself, or outside in the shade of the eaves (*mathuding a ntlô*). The necessity for burial in the shade was due to the fact that the baby

had never been in the outside world. It was actually a taboo (*ila*) to bury a young child in the open Sun. It was said: '*Ngwana ga a anegwe letšatšing*' meaning 'A child is not hung out in the sun to dry'. It was thought that if a child, contrary to custom, was buried in the Sun, then rain would not fall and the country would become 'hot' (be in a state of symbolic 'pollution' where matters were not right). It was also a taboo to bury anyone at noon. All burials should take place before or after that time (Hammond-Tooke, 1981).

The Southern Sotho (Basotho)

Both the Southern Sotho and the Tswana regarded the Sun as male and the Moon as female (Casalis, 1861). It was once the practice of the Basotho to arrange the body of someone who had just died in a squatting (upright) posture with the knees up to the chin, and with the arms doubled up (Martin, 1903). The corpse was bound with grass ropes to secure the limbs. The corpse was buried in this manner just before dawn, and facing east. The reason for this orientation, as per Martin (1903), was so that the deceased was ready to obey the call of Modimo, and being already in a crouching position, was not late in answering that call.

Ashton (1967) disputed some aspects of the death rites described by Martin (1903). Burial takes place as soon as possible after death, allowing time for friends and relatives to pay their last respects to the deceased, and to attend the funeral (Ashton, 1967). According to Ashton, the grave is dug in the morning. The funeral takes place in the afternoon, as close to sunset as possible, but must be completed by sunset. The Batlokoa (Tlokoa) or Batlokwa (Tlokwa) place the body facing north east (towards their original home), in contrast to other Southern Sotho who position the deceased facing east. The reason for such an orientation is the same in both cases. (The Tlokoa, resident in the eastern part of Lesotho, are the most traditional of the Basotho.) The corpse is gently placed in a squatting position in an excavated oval ledge or 'cave' on one side of the grave (the Tlokoa), or is laid on the bottom of the grave. The body, if European rites are being observed without a coffin, is placed on its back with the head resting on a pillow and turned in the proper direction. At a later time, after the final death rites have been performed, the spirit easily rises to its feet and proceeds to the ancient home of the people, namely: Ntsoanasatsi or Ntsoanatsatsi/Ntsuanatsatsi Hill, or the heavens. The spirit is rather helpless and must be correctly orientated for the journey (i.e. by facing in the right direction). Failure to do so may result in the spirit straying, falling into the hands of witches, or wandering around aimlessly as a lost soul (*sethotsela*) and plaguing its living relatives. The relatives must then set the spirit on its proper path by the sacrifice of an animal (Ashton, 1967).

The Tswana

The stars, the Sun and the Moon revolve around the Earth, which is flat (Clegg, 1986). The sky is made of stone ('the stone of God') beyond which is the place where God lives. There are small holes in the sky which allow the light of the Sun to penetrate in the form of stars. Water is to be found at the edge of the Earth, beneath the Earth and also above the sky. Water below can be pumped up, while water above falls as rain. It is evident that Clegg was describing a belief system which has been influenced by western cosmological concepts, and is no longer purely traditional. There is only one Sun. Some Tswana think that the Sun moves under the Earth, back to the east after setting. Others maintain that this

movement occurs over the top of the sky. A further belief is that the Sun, after setting, is eaten by a large crocodile which excretes the Sun in the morning in the east. The Sun, in addition to being the source of light and heat, is also 'the eye' or 'the lantern of God'. This deity understands that his people cannot be expected to work all the time, and so chooses not to observe the people at night. This is precisely why evil and corrupt deeds are done after dark, when the deity is not watching (Clegg, 1986).

A presumably Tswana informant, in similar vein, explained to Breutz (1969) that the Sun was the 'eye of God which was placed there by him when he created the earth and heaven'. The Sun was put in a position by this deity where it could give light to the people during daytime. There was further, a chariot with white horses and a driver which pulled the Sun from east to west. Once the Sun set it went into 'the third sea' where there was a glass heaven. The Sun passed underneath the Earth at night-time and rose again in the east in the morning. It was said that the chariot or carriage of the Sun came down close to Earth when the Sun was very hot. The Sun was a man since it gives more light than the Moon. Breutz commented that reference to the Sun as an eye was possibly a psychological impression, although such a description was evident in the 'Rhodesian cultural province'. Beliefs about a chariot or a similar vehicle drawing the Sun up into the sky, according to Breutz, seem to be of Ancient Egyptian origin, since southern Africans in previous times had no knowledge of the wheel (Breutz, 1969). It is difficult to escape the notion that Breutz's informant had heard of the Egyptian myth and had incorporated this myth into his own understanding of solar concepts.

There is a Tswana belief that the Sun dances at dawn on Christmas Day, although to see this event is to court 'celestial disapproval', and possibly serious consequences (Clegg, 1968). Mthombothi (2004) referred to a belief by some African children in South Africa that the Sun smiles and dances on Christmas Day. The children would be up early to open their gifts, and to observe the 'dancing' Sun. Animals, likewise, should all be facing east to watch the early morning Sun. A cloudy Christmas Day was something of a disappointment.

The Sun was invoked in different ways by some Tswana. The Rolong, the Kwena and the Hurutshe thought that their more remote forefathers came from 'the region of the rising sun', although they themselves came from north of the equator (Breutz, 1955). Breutz indicates that it is for this reason that the Tswana buried their dead facing towards the east. Breutz (1955) goes on to state that traditions regarding the position of the Sun before and after the crossing of the equator constitute proof of a north to south migration. The old men related that their forefathers had a vague recollection of a land of big lakes, plentiful rainfall, large rivers and high mountains (seemingly the Great Lakes region). Breutz (1969) confirmed that most Sotho-Tswana buried the dead facing east, or more recently, with the head of the deceased lying towards the east. Breutz (1969) referred to a widespread Sotho-Tswana belief that the living should avoid sleeping with their heads facing in an easterly direction.

Stow (1905) explained that the Sotho-speaking people had a belief that their forefathers, before coming down from the north, *first* originated from the east, in some unknown place facing the rising Sun. Some of the Basotho (evidently those we know of today by that name) had a tradition that their remote ancestors came from a land where the Sun shone on

the ‘opposite shoulder’, in contrast to the current situation. This memory refers to the time when the people lived north of the equator. The Basotho state further that the San were already in existence when the first man and first woman made their appearance; and that the San were found in every country through which the forefathers of the Basotho migrated (Stow, 1905). Mönnig (1983), in discussing the Pedi (Northern Sotho), observed that the dead were buried facing in the direction from where the people originally came from, in order to establish contact with the ancestors of the past. It appears, then, that burial customs amongst the Sotho-Tswana primarily concern direction (i.e. source of origin as well as the locality of the old ancestors and perhaps the supreme being), rather than the rising Sun in the east *per se*. Schapera (1979) was of a somewhat different opinion regarding the Tswana specifically. Schapera indicated that the body of the Tswana deceased was placed in a crouching position, with the head facing west. The deceased was ready to get up and walk to the place where the souls of the previously departed had gone.

Stow (1905) discussed the Ba-letsatsi (his term) or ‘men of the sun’, whom Stow maintained had almost died out, and whose totem or emblem (*siboko*) was the Sun. Stow claimed that the Ba-letsatsi did not work when the Sun rose ‘in a cloudy heaven’, believing that these unfortunate circumstances afflicted their hearts. On such mornings all food prepared the previous night was given to matrons or aged women who were the only ones allowed to touch the food, and who in turn gave some of the food to the children in their care. The people then went in a crowd to the river and washed their bodies in the water [clearly not in the dry conditions of winter, however]. Everyone threw a stone, which they had carried from their huts, into the bottom of the river. These stones were replaced by another stone removed from the bed of the river. The populace returned to their village or town and proceeded to the chief’s dwelling, where the chief had kindled a ‘consecrated or sacred fire’. The fire represented the Sun, from which all warmth is derived. The people removed some of the fire (obviously a glowing ember or coal) for themselves. The next stage involved a general dance in a public place. Anyone who had lost his father raised his left hand towards heaven, and those who had lost a mother raised their right hand. Orphans were obliged to cross both hands over their chests. The dance was accompanied by ‘a monotonous song’ which Stow (1905) translated as follows:

Song of the Shades of the Departed (Morimo) go home!
Which is it that I raise? (i.e. which hand)
Go home! Go home!

Stow (1905) explained that the Tswana word translated into English as ‘home’ refers in a strict sense to where one has dwelt, or where one dwells. Dornan (1921), in commenting on this description of events, observed that the translation of the song was not very accurate. For instance, Morimo (Molimo) was not ‘the Shades of the Departed’, but is the word for the supreme being or creator. Further, the dance and the song was not specific to the Ba-letsatsi, but was also performed by other Tswana albeit with minor modifications. The song, too, was not unique to the Ba-letsatsi. It is unclear to what extent the report by Stow (1905) can be considered to be accurate.

Breutz (1959), interestingly, referred to the Tsatsing or ‘the people of the sun’. This minor Tswana group, at the time of writing, was to be found living amongst the Tlhaping and

the Tlharo (in the Vryburg, Kuruman and Taung districts) as well as on Rolong farms in Botswana. Breutz (1969) was of the opinion that the solar beliefs of the Tsatsing did not reflect Tswana culture, and were probably originally derived from further north in Africa. Breutz (1969), in discussing the Sotho-Tswana in general, observed that the time before sunrise and after sunset was important for ritual and religious functions. Stories must not be told before sunset, in case the clouds fell down. Initiation ceremony rituals should be performed prior to sunrise, or often, after sunset.

The Zulu

The Zulu once believed that the heavenly bodies had some influence on human affairs (Samuelson, 1974). The sky (the heavens) was perceived to be a concave hemisphere. The Sun follows its daily course, although the Moon and stars are fixed and revolve with the sky (Samuelson, 1974). Kidd (1904) referred to one Zulu informant who stated that rain comes down through the sky, since its surface is covered with little holes. The holes let light shine through at night, thus forming the stars. The Sun, according to the same informant, was supposed to turn round after it set, and then shone on another part of the world. A different version is that the sky was a solid blue rock which completely encircled the flat Earth (Krige, 1950). The sky stands on the Earth at the outermost ends, while the Earth is held up by the horns of four bulls (Berglund, 1989). Earthquakes occur when one of the bulls shakes its head (i.e. the Earth itself shakes). The sky and the Earth are like twins, always together, with one above and one below. The sky came first and later the Earth (Berglund, 1989). The Sun, the Moon and the stars were said to be located 'on this side' of the rock (Krige, 1950). By day the Sun travels in its path in the sky. At night the Sun follows a path through the sea, emerging at its allocated place in the morning. At sunrise there is a great ball which is the Sun's mother. This entity accompanies the Sun as he is about to rise, leaves the Sun when he rises, and returns to the sea. The Sun is a great chief, since when he has risen the Moon and stars are dim (Krige, 1950). Samuelson (1974) indicates that the Sun is continually killed and reborn. It is said that there is a large luminous body in the east from whence a spark scintillates each morning, growing into the glorious eye of the day. Pygmies (*izichwe* or Bushmen) devour this luminous body each evening in the west (Krige, 1950). The Zulu thought that a San man was able to use the ray of the Sun as an arrow to achieve the destruction of his (the San's) enemies (Samuelson, 1974).

Ludlow (1882) confirmed that the Zulu perceived the world to be a flat plain. The Zulu, according to Ludlow, also thought that Natal and Zululand each had their own Sun and Moon. A long-obsolete Zulu custom was (usually) to bury the dead after sunset (Kidd, 1904). Cattle are an integral part of Zulu life (Poland, Hammond-Tooke and Voigt, 2007). There are many descriptive phrases and names in the Zulu language for the various properties of cattle, including the shape of the horns. A celestial example concerns young bullocks with their horns still erect, which are known as *amahlabazulu* or 'what stabs the sky'. The names of children can also have a celestial connection. One instance is Unomalanga for girls and Umalanga for boys. Both names are derived from *ilanga* or the 'sun' (Hale, 1997).

Döhne (1857), in referring to both the Zulu and the Xhosa, observed that the Sun and the Moon are symbols of powers both heroic and intelligent, and that comparisons were often made between these celestial bodies and certain people. The male Sun is regarded as the greater of the two, which chases the Moon, diminishing her (hence the 'dead Moon'). The Moon, through her cunning, always regains her position, increasing to her full body again. One celestial analogy is where there are two chiefs, one of whom has greater power, and who persecutes the other chief who has less power. The latter chief flees before the former, but has great cunning and always regains his position without being destroyed. The expression in this case is: 'It was fighting the sun with the moon'. The same idea is inherent in two doctors. The more powerful is called the Sun and the lesser doctor, the Moon. When both are summoned to a sick person, and their powers and skills are tested, it is then said that: 'Sun and moon have been employed'. The analogy also applied to individuals as in 'Sun and moon were there' meaning 'Tom and Dick have been here'. The expression further signifies that one person comes up and the other goes down (i.e. the one is the destruction of the other) (Döhne, 1857).

A pertinent example of the close association between the Zulu king and the heavens and its bodies was the murder of Shaka kaSenzangakhona at KwaDukuza (Stanger) on the 24th of September 1828 (Raum, 1973). It was said that this event was 'accompanied by upheavals in the firmament'. Nobody slept that night after the murder, for all believed that 'the pillars of heaven would yield' and that 'the vault of heaven' would collapse (Raum, 1973). When Shaka died, he prophesized that white men would overrun the land and that the whole land would be 'white with the light of the stars', and also that the land would be overrun by 'swallows' (the whites) (Webb and Wright, 1982).

During the annual Feast of the First Fruits, the Zulu king in previous times, squirted (spat) out medicine towards the rising Sun, or sometimes the rising and setting Sun (Krige, 1950; Webb and Wright, 1987). The purpose was to drive out evil from the people, and to send confusion and evil to his (the king's) enemies. The king also pointed his ancestral medicine-tipped *assegai* or spear at the Sun. Raum (1973), citing two other authors, states that the king by stabbing at the Sun derives power or strength from that celestial body. This event took place during the preliminary ceremony known as *ukuNyathela* (i.e. the little *umKhosi*). The King again squirted medicine at the rising Sun or pointed towards the rising Sun with his medicine-coated *assegai* during the main ceremony (*umKhosi*) (Krige, 1950; Webb and Wright, 1987).

The *ukuNyathela* ceremony was held in December according to Webb and Wright (1987), or as per Bryant (1949) mainly during the *uMasingana* Moon. The actual timing of this ceremony depended on the state of growth of certain fruits, in association with the phase of the Moon. The main *umKhosi* ceremony was held in January (Webb and Wright), or according to Bryant at the *uNtlolanja* Full Moon. The objective of the Feast of the First Fruits ceremony was to ensure a good harvest; to banish evil and to protect the people against external enemies (as already described); to reaffirm the role of the king (*inkosi*) as the provider to his people (both in agricultural and other affairs); to strengthen the king and to honour his ancestral spirits or *amadlozi*; to promote national unity; to publicly announce any changes to the laws or customs, and to doctor and fortify the army. No one

was permitted to eat the new crops of the season until the ceremony was over. Anyone doing so would bewitch the king, i.e. cause him to become ill. Permission to eat the first fruits was greatly welcomed by the people who had been forced to rely primarily on food obtained from the veld (Bryant, 1949; Krige, 1950; Webb and Wright, 1987). It was the general custom for the people, including the king, to avoid eating the first fruits without previously ingesting a mixture of medicines, thereby ensuring that the new food did not have a harmful effect on the stomach (Webb and Wright, 1987). Raum (1973) describes this action as a 'dietary adjustment' which was required when changing from a winter to a summer diet. The king by consuming medicine was also protected against the dangers of coming into contact with those who may already and improperly have eaten the new crops (Hammond-Tooke, 1993). The First Fruits ceremony is still held today in an abbreviated form, during December. Note that there are considerable differences of anthropological opinion regarding the timing of the two historical ceremonies, their actual significance, and even the names of the ceremonies. See Raum (1973) for further details.

Much the same action involving the squirting of medicine, first to the east and then to the west, is undertaken by the Swazi king in the all-important *Incwala* ceremony which is likewise held in summer (Kuper, 1961). Another surviving Feast of the First Fruits ceremony in KwaZulu-Natal is that of the Mthethwa, resident in the vicinity of Eshowe. The ceremony is celebrated at Full Moon in February each year (Bishop, 2005). All the important Zulu ceremonies in the past invariably took place at Full Moon, since these ceremonies often extended into the night (Krige, 1950; Binns, 1974). Bryant (1949) indicates that Zulu weddings, in the old days, were commonly held on the day of Full Moon to take advantage of the moonlight while dancing, and also to facilitate travelling by family members and others.

A number of precautions were necessary at certain times of the day to avoid potentially disastrous situations (Raum, 1973). One example is the after-birth when a Zulu woman had just had a baby. The mother was required to clean up her own blood and to dispose of the after-birth. The after-birth was buried before sunrise if the baby was born at night. If the birth occurred during the day, then the after-birth must be buried that evening (i.e. at times when the mother could not be seen by others). The mother of the woman's husband (her mother-in-law) buried the after-birth if the mother herself was too weak to undertake this duty. Failure to observe these customs could result in the mother of the baby being bewitched and unable to again bear a child.

The Xhosa

Very little appears to have been recorded about the Sun in the old Xhosa belief system. The Xhosa version of the rising and setting Sun was much the same as that of the Zulu. The Sun sank into the sea in the west and emerged from the sea in the east the following morning (T.E. Matomela). Soga (1931) conducted interviews with various informants prior to writing his book on the life and customs of the Xhosa. Soga stated that any suggestion that the world does not rest on a solid foundation and is constantly moving was met with astonishment. The firmament (*isibakabaka*) is the space or expanse between heaven and Earth (Kropf and Godfrey, 1915). The word *izulu* means 'atmosphere, air, sky' or 'heaven' (Kropf and Godfrey, 1915). Cousins (1897) indicated that all buildings in Xhosa villages

were circular (traditionally the case in African villages generally), and that the Xhosa used the Sun and the Moon as their models in this regard.

A slightly different version of the first emergence of man (see above) was provided by an early observer of the Xhosa (L. Alberti) in 1807 (Hodgson, 1982). There was a cavern 'in the land in which the sun rises' from which all people and all types of animals came forth. The Sun and the Moon came into existence at the same time to shed light. Trees, grass and other plants to provide food for man and cattle appeared. Xhosa sources are unanimous in speaking of 'a cavern in the east', known as *uHlanga*. Such a cosmological association with the east has a ritual significance, since the entrance to the main hut in a Xhosa homestead traditionally faced east. Chiefs were also buried facing east. These practices were still current in the 1980s, with graves being sited on an eastern axis. The original relevance of an easterly orientation has been forgotten, however, and this direction is now simply the custom. It is not impossible that the Xhosa in previous times adopted a belief in the east (i.e. for homesteads and graves) from the Khoikhoi (Hodgson, 1982).

The Sun was of primary significance in the great Xhosa cattle-killing of 1856–1857 (Peires, 1989). The cattle-killing saga was a complex process which unfolded in stages. There is still considerable uncertainty about the exact course of events, with many details unknown. A number of prophecies were made in the early to mid-1800s regarding the future of the Xhosa, the most important being that of a young Xhosa girl, Nongqawuse. In April 1856, Nongqawuse claimed to have been addressed by two ancestral spirits, and to have seen their faces in a small pool (known as Ekamangeni) below a waterfall in the Gxara (Gxarha) River, or alternatively in the sea. This river, at its mouth, is slightly to the east of the Great Kei (Nciba) River. The ancestors or *iziNyanya* promised that 'a happy state of things to all' (i.e. a Xhosa golden age of regeneration) would eventuate. The ancestors, however, demanded complete faith and obedience in return for assistance from beyond the grave. Nongqawuse returned home and spoke to her guardian and uncle, Mhlakaza. Mhlakaza was a somewhat embittered religious visionary and a one-time Christian, who interpreted Nongqawuse's utterances. Mhlakaza brought the matter to the attention of Sarhili (known to the whites as Kreli), who was the senior chief (*inkosi*) and king (*inkosi enkhulu*) of the Gcaleka. Sarhili visited Nongqawuse and was completely convinced by her prophecies. Sarhili, from then on, was the main driving force in the Xhosa cattle-killing. Several other Xhosa chiefs (*iinkosi*) either sent messengers to interview Nongqawuse, or in a few cases, themselves travelled to see her.

The prophecies foretold that the ancestors (the 'new people') would return, and that many good things would happen. New crops would cover the Earth, while vast, healthy herds would appear. The cattle enclosures and the grain pits, accordingly, would be filled. All manner of food, clothing and household goods would arise from the ground. Old age, illness and witchcraft would be a thing of the past. The English and all their (mainly Christian Xhosa) collaborators would go back to their cosmological place of creation. The Gcaleka were required to kill all their cattle and later other livestock, to destroy their crops, and to throw away or lay waste to their stored grain, in order to purify and rid the land of evil, pollution and witchcraft. No further crops were to be planted. Large and sturdy cattle enclosures were to be constructed to shelter the expected livestock. Deep, new grain pits

(*izisele*) had to be dug and threshing floors cleaned. Patches of veld had to be burnt to create gardens for the forthcoming mealies and pumpkins. Homesteads were to be rebuilt and strongly thatched to withstand and keep out the fiery rain and 'noxious beasts', which would accompany the dreadful winds of the prophecies (sweeping all unbelievers or *amagogotya* away). Stout new doors on all dwellings were needed for the same purpose. Additional measures included the making of new milk-sacks (*iimvaba*) and the cleaning and sweeping of courtyards or *iinkundla* (Peires, 1989). All copper rings, clothes, cooking pots and hoes as well as other agricultural implements were to be destroyed or sold. Peires maintained that it was very probable that the people also secretly got rid of their magical charms, medicines and other magical items.

The prophecies resulted in considerable upheaval. Men travelled long distances to speak to Nongqawuse and Mhlakaza. Groups of people converged on the pool, the surrounding bush and the adjacent seashore, with many claiming to have seen or heard their own ancestors and dead friends. The horns of cattle were said to be just visible amongst the reeds in the pool. The sounds of impatient cattle milling about, bellowing and clicking their horns together came from a subterranean cave. The latter was of great significance, indicative as it was, of the underground cavern of the *uHlanga* (the source of all living things, as per the Xhosa). Yet other observers saw groups of long-dead heroes passing by in the waves at the coast, before disappearing into the sea. Reports were made of warriors (*amagorha*) present in the clouds, fully equipped for war. Faint battle cries carried by the wind, descended from the sky. Rumours and stories of these strange happenings swept across the land, multiplying and becoming exaggerated with their telling. Not all Xhosa believed these accounts, including a few who had personally visited Nongqawuse and her uncle (Peires, 1989). Peires stated that the very locality with its cliffs, shadows, bush, pool, tall reeds, caves, river and sea all contributed to a climate of awe and mystery. The frequent mists in the vicinity suggest the possibility of optical illusions having occurred, with seaweed or dolphins being mistaken for the ancestors. The sound of the wind in the reeds also added to the general atmosphere. It is significant that Nongqawuse, on clear days with no mist or shadows, either announced that the new people were absent, or that only she could communicate with the (unseen and unheard) spirits. Unpleasant tales circulated of the fate of unbelievers who defiantly cultivated their lands. One account was that all the women who did so, were to be carried into the sea by a strong wind, once the acacia trees came into flower. Cultivation, amongst other things, was regarded as human interference with the Earth. Believers in the prophecies (*amathamba*) felt that any digging would 'disturb' the ground, and that the noise of the picks would upset and delay the arrival of the new cattle.

Most of the Gcaleka obeyed the royal injunction to destroy their cattle and crops. The Ngqika, initially, were amongst those Xhosa who refused to act in this apparently irresponsible manner. An orgy of destruction (which ceased at times) consumed many, but not all Xhosa for 10 months. This action was taken despite a severe lung-sickness (bovine pleuro-pneumonia) epidemic and a lengthy dry period, which had seriously depleted the Xhosa herds. People began dying of hunger by the end of 1856. Nongqawuse finally proclaimed that the day of deliverance, previously postponed, was the 16–17th of February 1857. On that day a blood red Sun would rise later than usual, with a terrible heat. The Sun,

at midday, would reverse its passage, turning the Earth pitch-black. A different version was that there would be two suns in the sky at the same time, both of which would be red on rising. The suns would then collide, bringing darkness to the Earth. A terrible storm, thereafter, would follow with thunder, lightning and 'hurricanes'. The believers, at this stage, were required to remain in their new and carefully sealed houses. The burning Sun and fierce winds would destroy the unbelievers, their impure cattle and their witchcraft implements. All other malevolent beings such as lizards and baboons would also be destroyed. All the wonderful things which had been foretold would occur. Peace, plenty and goodness would abound (Peires, 1989).

The appointed day came and went without any momentous developments. Families scattered with the old and the very young being left to fend for themselves. Looting and fighting broke out over what little food remained. Whole families awaited death, while a few turned to cannibalism. Mhlakaza, fittingly, died of hunger. Nongqawuse fled, fearing for her safety, and was handed over to a British official by the chief of the Bomvana. Nongqawuse was taken to Cape Town together with another prophetess, where they were detained. Nongqawuse spent her last days on the farm, Glenthorn, in the Alexandria district of the eastern Cape, where she died in the late 1890s or early 1900s (Peires, 1989).

The cattle-killing had a number of ramifications, including the death of some 40 000 people with about 400 000 cattle having been killed. Approximately 150 000 people were displaced from their ancestral lands, most of whom never returned there. Thousands of desperate Xhosa entered the Cape Colony in search of food, or as contracted labourers to white farmers. The Cape Colony gained in excess of 2 430 km^2 of Xhosa land in this way. Peires observed that the cattle-killing was motivated by several deep-rooted issues. These included the cattle lung-sickness epidemic, which was viewed as the displeasure of the ancestors at the Xhosa who were turning away from their customs. There was also a general sense of despair, given that every effort had been made to win back land lost to the Cape Colony, but all to no avail. There was, therefore, a fervent wish to prevent any further such losses, and to improve the material welfare of the people. Political factors played a major role in determining the course of events, with subjugation of the Xhosa as a primary objective of the Cape colonial authorities. One interpretation of the prophecies is that they came at a critical time in the changing patterns of Xhosa spiritual and cultural beliefs. The preaching of the missionaries about a man who rose from the dead, combined with other factors, had a decided resonance in the widespread desire for some form of cultural and economic regeneration, and for the emergence of a strong leader or redeemer. The tragedy, ultimately, constituted a clash between the forces of modernity and those of tradition (who completely rejected colonial domination) (Peires, 1989).

The Swazi

The 'Great Sun' or 'Male of the Heavens' crosses the sky in a more or less regular path twice a year (Kuper, 1961; Beidelman, 1966). The Earth in this scenario is flat and stationary. The Sun does not die in the evening, and enters his mother's hut where he sleeps. He emerges again strong and refreshed in the morning. Conservative Swazi once believed that there was nothing beyond the points where the Sun rose and set. The actions of the Swazi were markedly influenced by natural phenomena such as the Sun and the

Moon. This association was so close that the Sun and Moon were personified, and were directly related to the cyclical experiences of human existence. The connection between the Sun and human destiny is closest at dawn and dusk. Kings and nobles of the royal Dlamini house should die at sunset or dawn. The caves in which they are buried must be closed at dawn. Dusk and dawn is the time to speak to the ancestors, when they are most active (Kuper, 1961; Beidelman, 1966). Some of the praise names of the king or *Ingwenyama* ('the Lion') are linked to the heavens. These include: 'the Milky Way' and 'the Sun' (Kuper, 1963); as well as the 'Being of Heaven' (Kuper, 1961). The term 'People of the Sun' or the *Malangeni* is used to refer to the close paternal relatives or lineage of the king (Kuper, 1961). An early Swazi king, Sobhuza I, settled with his people in the environs of the Mdzimba Hills in central Swaziland, where he built his homestead known as Elangeni or 'in the sun'. This area is the site of many of the Swazi royal villages. The Sun, the Moon and to some extent the stars play a significant role in the *Incwala* ceremony (Kuper, 1961). The ceremony is discussed further in **Chapter 3**.

The Swazi place considerable emphasis on the east-west axis, with reference to the passage of the Sun across the sky (Beidelman, 1966). Movement from west to east, in contrast, appears to be inauspicious. Many rites progress from east to west (Marwick, 1940). Swazi kings are buried orientated in an easterly direction (Marwick, 1940); while Swazi brides walk from east to west, and face eastwards in certain marriage rites (Kuper, 1945). The cattle enclosure (*sibaya*), if the slope of the land allows it, is built facing the rising Sun (a symbol in family and national ritual) (Kuper, 1961).

The Sun was a primary agent in an extreme method of divination known as *umbondvo*, which was administered by diviners or *tinyanga* (Kuper, 1961). *Umbondvo* is a poisonous mixture which was thought to have no effect on the innocent, but which forced the guilty into a confession. The ingestion of *umbondvo* was regarded as a tense and nerve-wracking experience. The procedure, in more recent times, was undertaken by diviners from Mozambique. *Umbondvo* took place on a day when the Sun blazes from a clear sky (seemingly in summer). Those suspected of evil deeds were instructed to sit with their legs stretched out in front of them, from the early morning until late afternoon. Men were only permitted to wear their loin skins and women their skin skirts. The reason was so that no protective medicines could be hidden in their clothing. The suspects 'burn in the sun' and 'feel the *umbondvo*'. The mixture was sometimes given as a liquid, and sometimes as a powder. The guilty 'writhe, crawl, and make terrible noises' and confess why they acted in an anti-social manner. Kuper (1961) noted that the guilty were often unable to state exactly how they achieved their evil purpose. They did, nevertheless, publicly express their hatred of the victim.

The Tsonga

Heaven or *Tilo* for the Tsonga was both a spiritual place and also an immense solid vault (the sky) which rested on the Earth (Junod, 1927). The Sun, amongst other celestial bodies, moves in this vault. The point where heaven (the firmament) touches the Earth is called *bugimamusi*, specifically the place where women can rest or lean their pestles (food-stampers) against the vault. (This is in contrast to anywhere else where pestles can be leant against a tree or wall.) Another interpretation of the meeting point between heaven

and Earth is that it is the place where the women must pound mealies on their knees. The women are unable to stand upright since their pestles will strike the vault. The Earth was often called *libala* or 'the great plain'. Some Tsonga thought that the Earth was infinite, i.e. is 'endlessly prolonged downwards and has no bottom' (Junod, 1927).

The Sun was never personified or worshipped by the Tsonga, who had two concepts of the Sun (Junod, 1927). The Sun, according to certain coastal Tsonga, appeared from the sea. The light reflected on the sea after the rising of the Sun was regarded as a 'kind of source of light', from which the Sun emerged and renewed itself each morning. The Sun was 'cut out from the provision of fire', adhered to heaven, followed its course, and died in the west. Another Sun rose the next day, in a similar manner (from this provision). Some Tsonga, in contrast, thought that the Sun passed underneath the Earth and came back the following day (i.e. the same Sun). The Tsonga watched the Sun closely, and had a very good sense of direction. The Tsonga were well aware of the place where the Sun rose (*busha*) and set (*bupeladambu*), and always knew where north was. The Tsonga generally waited until sunset to bury a deceased relative. The Sun was invoked by the Tsonga for a beautiful branching shrublet (*Melhania forbesii*) known as *Muhlwadambu* or the 'Setting Sun'. The deep yellow colour of the flowers is similar to that of the Sun when disappearing below the horizon (Junod, 1927). The Ronga in the environs of Delagoa Bay (Maputo) were described as 'the People of the East' (Ba-Ronga), since *Ronga* means 'east or dawn' (Junod, 1913).

The Venda

The Venda once thought that the Earth was a large flat disc which floats in water. The Earth has a roof, the dome of the sky (*makholi*) which meets the circumference of the disc at the horizon (*sendekamisi*) (Stayt, 1931). The latter term refers to the place where the food-stampers were leant, and is derived from *u sendeka* or 'to lean' and *misi* or 'stampers'. The Sun travels across the dome of the sky from east to west every day, and returns to the east once more (unseen) at night. Some Venda believed that the Sun returns under the water in which the world floats. The Sun then arrives at daybreak to repeat its journey. The Venda approve of the great heat of the Sun, but maintain that the people would burn up if the creator (Raluvhimba) brought the Sun any closer to the Earth (Stayt, 1931). The concept of the sky as a solid object remained current amongst some Venda, at least, until the 1960s. Breutz (1969) described a Venda worker in Pretoria who witnessed a jet aircraft fly 'straight up at great speed'. The worker thought that the aircraft must have struck 'the "green" (blue) stone' and been smashed to pieces. The inference here, according to Breutz, was that the sky was made of stone.

A belief that we have seen before, but this time in the context of the Venda, is that the 'original VhaVenda were led southwards from a place which was near the sea'; and situated in 'a land of many rivers which all join and in one body rush to the sea' (Lestrade, 1927). The land was warmer than Venda itself, while 'not far to the east were long pools of silent waters'. These pools were unlike the sea 'because of their silence'. Lestrade (1927) was of the opinion that this description refers to the Great Lakes region. The Damani (a Venda sub-group), it is said, were originally the Ngona who had come from a country called Damani, in the west, prior to settling in Venda (van Warmelo, 1940). This sub-group is referred to as the 'People of Damani', who appeared from the direction of sunset.

The Vhangona (Ngona), according to Lestrade (1927), were a people of unrelated origin who were subdued and assimilated by the Venda proper. The Ngona, nevertheless, have retained their individuality and are regarded as a separate clan (*mutupo*) or sub-group of the Venda.

Retarding the passage of the Sun

A Venda traveller setting out on a long journey in previous times placed a stone in the fork of a tree (Stayt, 1931). The Sun was identified with this stone, and was also trapped in the tree, setting a little later. The traveller was thus able to reach his destination in daylight. A very similar version is given in Wessmann (1908). Kidd (1906), in much the same vein, referred to boys wishing to gain time and reach home before the evening meal was eaten. The boys put stones in trees, usually choosing trees with forked branches. The boys imagined that the Sun was unable to pass a certain place in the heavens, which was in line with their eye and the stone. A slightly different procedure was often used by boys who were late in returning the cattle to the homestead. In this instance, two sticks were placed in the ground, one pointing towards the east and the other to the west, forming an inverted V-shape. The stick pointing east was intended to retard the movement of the Sun, while the stick pointing west was supposed to tell the Sun to move slowly. The boys addressed the sticks in polite terms and urged the sticks to talk to the Sun, telling it not to hurry. It is unclear which group or groups in South Africa Kidd (1906) was referring to, however.

Times of the day and night

The Xhosa in the past, like others in southern Africa used the Sun as a temporal indicator (Peires, 1981). A given hour was indicated by pointing to the position of the Sun at that time. This applied to a specific day, or to arrange a meeting at a particular time a few days later. Any activity such as weeding extended over two positions of the Sun. This method applied throughout the year, taking into account the shorter hours of daylight and the lower angle of the Sun in winter. It follows that the elevation of the Sun (the hour) varies from winter to summer. The length and orientation of shadows was another means of observing the progress of the Sun. Ludlow (1882) maintained that the Zulu also used the passage of the Moon as a means of telling the time, and that the Moon and stars served as landmarks while travelling at night.

In the old days the San evidently divided the day according to the position of the Sun, although no names have been recorded for any fixed divisions or parts of the day (Schapera, 1965). The latter is in contrast to the other peoples of southern Africa who assigned names for some components of the day. The San calculated distance in terms of time. A San man indicated the distance away, for example, of a waterhole by pointing at the sky to show the position of the Sun once he had reached his objective. The man, if asked how far away a fairly distant locality was, stated that it would take him one or two (or more) nights ‘on the way’. The man, when asked the length of a particular journey, named the places at which he would sleep while thus engaged. The man touched a finger to his lips for each ‘sleep’ and held up his fingers saying: ‘So many nights’, but not days (Schapera, 1965). Some of the elderly Ju/’hoansi (!Kung) hunters in the Nyae Nyae area of Namibia still currently rely on the position of the Sun to determine time, and still count the days by the phases of

the Moon: the availability of watches and radios notwithstanding (A. Rogers). Marshall (1999) confirmed that the !Kung continue to use the Sun as a directional mechanism when travelling, and to measure time. Contemporary G/wi divisions of day and night are listed in **Chapter 5**.

The summer and winter solstice

The various African groups in South Africa were fully aware of the seasonal changes of the Sun, as indicated by the changing position of the rising and setting Sun on the horizon, and the varying length of daylight. The Sun, using Cape Town as an example, sets approximately 30º south of west at the summer solstice (an azimuth of ± 240º), and about 30º north of west at the winter solstice (an azimuth of ± 300º). The 'observational angle' of the setting Sun, at Cape Town, is thus of the order of 60º over a period of one calendar year. Note that azimuth is the angular distance measured eastwards along the horizon from true north. A bearing due north is at azimuth 0°, due east is 90°, due south is 180°, due west is 270° and so on.

A belief amongst the Southern Sotho (Basotho) was that cows stand 'facing the house to which the sun is moving' and where this celestial body will remain for about a week, before beginning the return journey towards the other house (solstice position) (Norton, 1909). Reference to a week is an accurate description, in terms of the naked eye, of the apparent cessation of the northerly or southerly progress of the Sun along the horizon. Close observation is required to note such a change in solar direction (C. Turk). Ambrose (2009) with regard to a particular Southern Sotho orthography, refers to the winter solstice as *bokhutlatsatsi* meaning 'when the sun returns'. The point of observation in this instance is the time when the Sun 'begins to retreat from its previous tendency to shine farther and farther into the interior of a house'. Ambrose (2009) was unable to discover the appropriate term for the summer solstice. Pepin (1996) observed that the position of the Sun on the winter solstice is known by the Basotho as the 'homing position' or *Letsatsi le Kene Tlung* ('the sun has entered its home'). The Northern Sotho term for the solstice is *serêmô* or *serêmôtšatši*, which refers to the standing still of the Sun (Kriel and van Wyk, 1989). The Northern Sotho were well aware of the two points on the horizon where the Sun 'turns' on the solstices (Beyer, 1919). The Langa Ndebele (Mapela), who are discussed later in the book, likewise watched the position of the Sun on the horizon as it moved from the winter solstice to the equinox and then to the summer solstice, and back again (Jackson, 1969). The Tswana regarded the solstices as the summer-house and the winter-house of the Sun because he (the Sun) seems to rest there for a few days (Casalis, 1861). The Venda word *ombela* meaning 'knock in', as a nail or peg (of the Sun) describes the point furthest south or north reached by the Sun, i.e. the summer and winter solstice (van Warmelo, 1989).

The Sun according to the Swazi makes two great journeys across the sky each year, with one going southwards and ending with the southern solstice, where the Sun rests in his hut (Kuper, 1961). The return journey to the north takes place with the Sun resting in his hut once more at the winter solstice. The Xhosa referred to the summer and winter solstice as *injikolanga* meaning 'the turning back of the Sun' (T.E. Matomela). The Sun, as per the Zulu, has a winter house and a summer house. The Sun goes north to a certain mountain or tree where he stays for a few days, and then turns south fetching the summer.

The same procedure occurs for the summer solstice (Callaway, 1870; Krige, 1950). Two relevant Zulu expressions are: *ilanga selilanda abalindi* when the Sun is returning from the summer solstice (i.e. it is 'fetching out the bird-watchers'); and *ilanga selilanda abalimi* when the Sun, subsequently, returns from the winter solstice (i.e. it is then 'fetching the ploughmen') (Doke and Vilakazi, 1948). Both expressions refer to the agricultural cycle. In the first case, the forthcoming harvest in autumn must at all costs be protected from the many scavenging birds, while the lands in the latter instance must be prepared for the new crops. A possibly more modern term for a solstice is *impenduka-langa*, which relates to the change of direction or turning around of the Sun (Dent and Nyembezi, 1979). There is still a belief held by some Zulu that the Sun has a winter house (*ubusika ikhaya*) and a summer house or *ihlobo ikhaya* (Govender, 2011). A number of elderly Zulu men, likewise, still closely observe the position of the rising Sun on the horizon, in terms of the seasons. The locality of the Sun serves as a guide to the appropriate time of the year to plant various crops (Govender, 2011). It is interesting to note that a long-standing Zulu language newspaper is called *iLanga laseNatali* (= The Natal Sun) (Koopman, 2002). The newspaper was once edited by John Langalibalele Dube, a well-known political leader and educator in the first half of the 20th century.

The situation regarding the San outside South Africa varies. Marshall (1986; 1999) for example stated that the Nyae Nyae !Kung, while an extremely observant people, have never noticed the solstices. The reason is two-fold. The landscape, firstly, is very flat. The second factor is that the !Kung frequently move from one site to the next. There are no permanent roofs, fixed posts in the ground, or large trees seen from the same angle which can be used to mark the seasonal positions of the Sun. The Naron in the vicinity of Okwa in Botswana, in contrast, *are* aware of the changing position of the Sun on the horizon. The Naron speak of longer nights in winter, although they like the !Kung do not understand that the Sun's position is the cause of this situation. The Naron believe that night itself creates low temperatures, with the long winter nights therefore accounting for the cold of winter (Marshall, 1986; 1999). Some G/wi build their temporary hut or shelter (*n/usa*) with the entrance facing north in winter to avoid the occasional bitter south wind, and to take advantage of the warming rays of the northern Sun (Silberbauer, 1981).

The seasons in southern Africa

The concept of a calendar or solar year in southern Africa in the past simply did not exist. The longest period of 'consolidated time' was that of the seasons, which are named below:

- **The Xhosa:** *iNtlakohlaza* (spring); *iHlobo* (summer); *uKwindla* (autumn), and *uBusika* (winter) (Soga, 1931).
- **The Ndzundza Ndebele:** *isilimo* (spring); *ihlobo* (summer); *ugwindhla* (autumn), and *ubusiga* (winter) (Fourie, 1921). Mashiyane (2002) gives the terms *ubusika* (Ndzundza Ndebele) and *mariha* (Northern Ndebele) for winter. Shabangu and Swanepoel (1989), in turn, provide the following Southern Ndebele terms: *isilimela* (spring); *ihlobo* (summer); *isiruthwana* or *intwasabusika* (autumn), and *ubusika* (winter).
- **The Swazi:** *intfwasahlobo* (spring); *lihlobo* (summer); *likwindla* (autumn), and *busika* (winter) (Rycroft, 1981).

- **The Zulu:** *ukweqa*; *ukuxhuma* or *intwasahlobo* (spring); *ihlobo* (summer); *ikwindla* (autumn), and *ubusika* (winter) (Dent and Nyembezi, 1979).

- **The Northern Sotho:** *seruthwana* (spring); *selemo* (summer); *seregana* or *lehlabula* (autumn), and *marega* (winter) (Department of Education and Training, 1988).

- **The Southern Sotho:** *selemò* (spring); *lehlabula* (summer); *lehwetla* (autumn), and *mariha* (winter) (Christeller, 1994).

- **The Tswana:** *dikgakologo* (spring); *selemo* (summer); *letlhafula* (autumn), and *mariga* (winter) (Department of Education and Training and the Department of Education: Bophuthatswana, 1988).

- **The Tsonga:** *ximun'wana* or *xihlovo* (spring); *ximumu* (summer); *nkarhi wa ku tshovela; xikana* or *nhlovo* (autumn), and *vuxika* or *xixika* (winter) (Publications Committee, Swiss Mission in South Africa, 1988).

- **The Venda:** *tshilimo* or *tshimedzi* (spring and early summer); summer (not given); *tshifhefho* (autumn), and *vhuriha* (winter) (Wentzel and Muloiwa, 1976). Gottschling (1905), with regard to an older orthography, gives the following terms: *tšelimo* ('the time of ploughing and sowing' = spring); *lotavula* ('the time of the beginning of the harvest'); *tšefefo* or *mainda* ('the time after the harvest' when the Venda still have food = autumn), and *marika* ('winter') or *ndala* ('hunger') when food is scarce and the people remain 'more or less hungry'. Van Warmelo (1989) states that *tshifhefho* is late autumn, when it becomes cooler and there is an abundance of field products.

- **The San:** The largest divisions of time for the San in the past were the seasons, although shorter periods of time were determined by the Moon (Schapera, 1965). It was the seasons which regulated the food supply and therefore the movements of the San in search of sustenance. Rainfall patterns were accordingly the primary factor in differentiating between the seasons, with other parameters also being applicable. The **/Xam** recognized four seasons which equate to spring, summer, autumn and winter. The **Naron** had three seasons. Spring was when the birds mated and the first flowers appeared, and extended from around August–October. Summer, from November–March, was the time of high temperatures and rain (or the expectation of rain). The cold time of winter encompassed the months of April–July. The **!O Kung** of southern Angola, likewise, had three seasons. There was a cold and dry period from about April–September, followed by the time of the first rains up until around November, and then the real rainy season from about December up to March–April. The **Auen**, the **!Kung** and the **Heikum** had four seasons. Winter was the cold and dry season, with the small or first rainy season (early spring) following thereafter. Next was the hot and dry season (spring and early summer), and lastly the big or second rainy season of late summer. The eastern !Kung had a 'vegetation year' of 10 months, with the 'year' extending from one *veldkos* harvest to another. Schapera (1965) observed in summary, that a San 'year' was finished once all the seasons had passed. There was, however, no clear notion of the year as a distinct period of time. Time was thus not reckoned with regard to years. Mothers knew in which season their babies had been born, and for the

next 3–4 years remembered how many seasons ago the birth had taken place, but became confused thereafter. No one knew their actual age, although they were well aware of their comparative age in terms of the other members of the family (Schapera, 1965). Thomas (1959) and Lee (1984) provided more contemporary information on the seasons of the !Kung resident in both Botswana and Namibia. These San divide the year into five seasons based on air temperature, the rains and the availability of veld foods (Lee, 1984: data for the Botswana !Kung). The seasons are: (a) *!huma* or the spring rains, i.e. the beginning of the !Kung year (October and November) when the first scattered, light thundershowers and lightning occurs = hot and dry or wet; (b) *bara* or summer (December–March) which is the season of plenty when the main rains fall = hot and rainy; (c) *≠tobe* or autumn (a brief period in April or May) after the rains have ceased, but prior to the very cold weather = cooler and drying; (d) *!gum* or winter (the end of May–August) = cool and very dry, and (e) *!gaa* or the spring dry season, i.e. early spring (late August to the end of October or early November) = hot and dry, until the first rains arrive. The latter season, the end of the !Kung year, is the 'least attractive' time of the year, with a rapid increase in daily temperatures and a shortage of the most desired foods (Lee, 1984). September, according to the !Kung across the border in Namibia, heralds the unpleasant season known as the 'little winds before the rain' when heat, desiccation, whirlwinds, clouds of dust and semi-starvation can be expected (Thomas, 1959). Lee (1984) noted that the !Kung were constantly required to adapt their subsistence strategies to cater for high and low rainfall years, as well as localized variations in rainfall, all of which are evident in this arid Kalahari region. Droughts are frequent. The **Naron** now divide the year into two well-marked seasons consisting of a dry and cold winter from May–September, and a hot summer with rain from October–April (Guenther, 1986). There is one transitional season (spring), which is the time of the first 'small' rains and warmer air. The Naron have no word for autumn. The transition from summer to winter is a gradual one with the rains falling sporadically, mainly in isolated thunderstorms during summer, and which become scarce at the end of this season. The Naron names for winter, summer and spring are *sau*, *n//au* and *!khu* respectively. The early rains in the form of light showers are known as *du* (the term for rain in general), with the first heavy rains in December being referred to as *n//au* (the word for the season as a whole). The last heavy rains of March and April are called */dobi*. Rainfall patterns may be uneven with some areas receiving more rain than other areas in a given month. Spring rains are sometimes not timeously followed by the main summer rains, resulting in vegetation growth, including pastures, withering and dying. Livestock and wild animals can die in these circumstances. Extended droughts are extremely problematic for the Naron (Guenther, 1986). A further account of Naron seasons can be found in Barnard (1986). Barnard gives the Naron names of the seasons as follows: winter (*sau*), summer (*n//au*), spring (*!ho*) and autumn (*!hu*). The **G/wi** do not regard the seasons as independent entities (Silberbauer, 1981). Seasons are an aspect of the land and consist of a sum of factors including the state of the vegetation, temperature, wind, the presence or absence of water, the availability of food, and the behaviour of man and the animals. The weather conditions in each season are the ultimate expression of the characteristics of that season. The passage of a period of time longer than about a month is measured in terms of the seasons. A completed succession of the various seasons constitutes one *khudima* or 'a

twelve-month' period. The number of such periods which have passed (i.e. 'years') is calculated by the number of winters which have elapsed. Winter can thus be regarded as the end of the G/wi year. *!hosa* is 'the hot time, the time when the trees flower'. These trees or *ji:dzi* (meaning flora in general and trees in particular) include certain species of acacia. This is the dry season which extends from the end of winter in August or September, to the first rains in late November or December. The season is defined by climatic and botanical criteria, and not as a fixed unit of time. *N//aosa* is the next season. This is 'the rain time when the grass is green and the antelope breed'. (Silberbauer observed, nevertheless, that many antelope give birth in *!hosa*.) The season runs from the onset of the rains in late November or December until late March, or even the beginning of April. *Badasa* follows, 'when the tsama melons are plentiful'. The species described is the Tsama Melon or Tsamma Watermelon (*Citrullus lanatus*). This season extends from late March or early April (when the rains cease) until the veld begins to dry out and the nights become cool (about the middle of May). *G!wabasa* is the time 'when the plants begin to die'. The deciduous species drop their leaves and the ephemeral (short-lived) plants die down. The season lasts from around mid-May to mid-late June. *Saosa* is the final season, 'the cold time', running from mid-late June until about the end of August. In some years there is a fairly good fall of early rain at the beginning of October which is often followed by a hot and dry spell, after which the rains become properly established. In these circumstances the early rains and their consequences are called *badasa*, which is the same name as that for the early autumn season. This period is usually over by December but can last until early January. The following season is *n//aosa*, with the succeeding season being referred to as *g//obadasa* or 'great *badasa*'. The G/wi, like other people, dislike extremes of temperature (i.e. very hot or very cold conditions). The most unpopular season is *!hosa* due to the heat and the scarcity of food. The G/wi become morose, depressed and listless. This is a time of disease, discomfort and disinterest. Loneliness is also a problem since the band has separated to search for food and water. Children are particularly affected in this season by their inability to play for much of the day because of the heat of the Sun and the hot sand, their reduced nutritional intake, and the absence of other children. The only relief for the G/wi involves anticipation of the forthcoming rains. The expected rain is not guaranteed and there is anxiety in case the rains are too late or are insufficient to ensure a good growth of food plants (which could mean famine or death). The season of *n//aosa* brings relief from anxiety, although hunger and thirst continues until the veld plants have recovered. The bands reunite and the mood of the people improves with the rain, the milder temperatures and the greater supply of food. The peak season in the Kalahari is *badasa* when the weather is good and the landscape is at its most fruitful. *Badasa*, unfortunately, only lasts for 6–8 weeks, and is the season against which all other seasons are assessed (being to varying degrees more unpleasant). Sociability is at its height during *badasa* when there is much visiting between different bands, given the pleasant weather and the fact that food is easy to find and is readily available. Food also lasts longer in the cooler weather before spoiling. The people remain cheerful and happy as autumn fades away and night-time temperatures decline, ushering in *g!wabasa*. The G/wi become quieter and more serious as winter approaches. The cold weather (*saosa*) results in subzero temperatures at night, although this

discomfort is not regarded as severe as conditions during *!hosa*. Food is less plentiful at this stage but is seldom scarce enough to cause real hardship (Silberbauer, 1981).

- **The Khoikhoi (Nama in Namibia):** There were four traditional seasons (*gamagu*). The first season was *!kxa//aëb* (early spring or blossoming time) or *!abab* (spring). This season comes with the increasing warmth and when the bushes and trees burst into leaf (independently of rainfall). In good years winter or early spring rains will have revived the grass. The season begins as early as August and ends in October. The next season is *//kxũnab*, which encompasses the first half of the hot period, during which the lesser rains fall in good years. If these rains fail or are scanty, then the land has a generally desolate appearance, without grass or herbage. This time of drought is sometimes called by the same name as drought itself, namely: */kxurub*. The second season extends from October–December inclusive. The third season, the most important for the people, is the pasture season or *//haob*. This season includes the time of the greater rains and the period immediately thereafter when fodder is still fresh. The duration of the season is approximately from January–April, which is equivalent to summer and the beginning of autumn. Winter or the cold season (*saob*) lasts from May–August and involves two-thirds of autumn and the first half of winter (Schultze, 1907 cited by Schapera, 1965).

Heavenly bodies as national and other symbols in South Africa

Heavenly symbols in flags, emblems and mottoes constitute one avenue of celestial research in South Africa. Included in this category are municipalities and commercial firms as well as voluntary associations and clubs. It would seem that the constellation of Crux (the Southern Cross), unlike in Australia, New Zealand, Samoa, Papua New Guinea and Brazil has largely been ignored, with the Sun and the stars only sometimes being used as symbols in South Africa. A useful source of information is the FOTW Flags of the World website, accessed on the 5th of January 2011. See: http://www.crwflags.com/fotw/flags/za_index.html.

The new South African coat of arms was adopted on the 27th of April 2000. The coat of arms incorporates two pairs of elephant tusks; two ears of wheat; a drum-like shield; a spear and a *knobkerrie* (a thick stick with a rounded end); two San figures on the shield greeting each other; flowers of the Giant Protea/King Protea or Grootprotea (*Protea cynaroides*); a Secretarybird or Sekretarisvoël (*Sagittarius serpentarius*), and the rising Sun with seven rays, above all else. The latter denotes the promise of a rebirth of the country. The Sun is, further, the symbol of the source of life and light and the 'ultimate wholeness of humanity'. The protea, amongst other things, is symbolic of the holistic integration of forces which grow from the Earth, and which are nurtured from above. The powerful bird (with legs depicted as the spear and *knobkerrie*) is *inter alia* a 'messenger of the heavens and conducts its grace upon the Earth'. The bird is a symbol of divine majesty and is depicted in gold, clearly indicating its association with the Sun and the highest power. The coat of arms consists of a series of elements 'organised in distinct symmetric egg-like or oval shapes placed on top of one another'. The completed structure of the coat of arms, it is stated, 'combines the lower and higher oval shape in a symbol of infinity'. The path which 'connects the lower edge of the scroll, through the lines of the tusks, with

the horizon above and the sun rising at the top, forms the shape of a cosmic egg'. The bird thus rises from the cosmic egg, symbolically implying the rebirth of the 'spirit of South Africa'. The motto at the base of the coat of arms is *!ke e: /xarra //ke* and is derived from the /Xam San meaning: 'Diverse people unite' (http://www.crwflags.com/fotw/flags/za) coa.html; http://en.wikipedia.org/wiki/coat_of_arms_of_South_Africa, both accessed on the 5th of January 2011).

The national symbols of some former South African homelands also incorporated heavenly objects. The flag of the ***Self-governing Territory of Lebowa*** (in the modern-day Limpopo Province and also in the present-day Mpumalanga Province) included a prominently displayed rising Sun with nine rays radiating outwards (http://en.wikipedia.org/wiki/Lebowa). The coat of arms of the ***Self-governing Territory of KaNgwane*** (in the Mpumalanga Province) incorporated a rising Sun with six rays (http://www.crwflags.com/fotw/flags/za-ng.html). The flag of the ***Self-governing Territory of Gazankulu*** (in Limpopo Province) had two horizontal blue panels which symbolized the infinity of the sky, and that like the sky, there should be no limit to advancement and development (http://www.crwflags.com/fotw/flags/za-gz.html). The flag of the ***Self-governing Territory of KwaNdebele*** had a horizontal blue panel. The blue colour represented the colour of the sky and the endlessness of space, symbolizing the 'room' needed by the Southern Ndebele people to fulfil their ideals. A yellow horizontal panel in the flag denoted the light and energy of the Sun which is necessary for life, and which also lights the way ahead (http://www.crwflags.com/fotw/flags/za-nd.html). The motto of the once-independent ***Republic of Ciskei*** (in the current Province of the Eastern Cape) was: 'We shall be stopped by the stars', or 'The sky is the limit' (http://en.wikipedia.org/wiki/Ciskei). Another version is that the motto reads: 'Reach for the stars' (http://www.crwflags.com/fotw/flags/za-ck.html). The flag of the Ciskei included two blue triangular panels. The blue colour was said to symbolize the infinity of the sky and the striving for progress and development.

The coat of arms of the ***Province of the Eastern Cape*** has a rising Sun with nine rays (http://www.crwflags.com/fotw/flags/za-ec.html). The coat of arms of the ***Province of KwaZulu-Natal*** (formerly the Province of Natal) incorporates a five-sided star indicative of the star marking the birth of Christ (http://www.ngw.nl/int/zaf/prov/kwazulun.htm). The early Portuguese explorer Vasco da Gama gave the name *Terra do Natal* = 'Land of the Nativity' or 'Land of the Birth' (of Christ) to that part of the south east African coastline sighted on Christmas Day 1497 (Raper, 2004): hence the name *Natal*. Some observers maintain that the five-sided star also refers to the Zulu as 'the people of heaven'. The name of the Mpumalanga Province means 'where the Sun rises', which is descriptive of the easterly locality of that province.

A short-lived South African state bordering the present-day Botswana was the ***Republiek Stellaland*** (Republic of Stellaland, literally: 'Star Land') which was established on the 26th of July 1882 with Vryburg ('town of freedom') as the capital. This turbulent republic, established by a band of white ex-mercenaries after fighting a local war, had a brief existence in the years 1882–1883, before amalgamating on the 6th of August 1883 with the neighbouring ***Het Land Goosen*** [Goshen] or State of Goshen (itself established in October 1882). The new state was known as the ***Verenigde Staten van Stellaland*** or the

United States of Stellaland (http://en.wikipedia.org/wiki/Stellaland). Stella refers to the spectacular Comet C/1882 R1 (Great September Comet) (Reader's Digest Association, 1980). The comet was first observed in South African skies on the 7th of September 1882, and was so bright with an estimated maximum apparent magnitude of –17, that it could be seen in daylight for a number of days (T.P. Cooper). (**See Chapter 5** for an explanation of apparent magnitude.) The comet, although with a declining magnitude, remained visible to the naked eye until mid-February 1883. The flag of the Verenigde Staten van Stellaland, not unsurprisingly, had a large eight-sided star in the centre, with the coat of arms including a five-sided star, and with another five-sided star above the coat of arms (http://en.wikipedia.org/wiki/Stellaland).

The motto of the former ***University of Natal*** (Durban/Pietermaritzburg), now the University of KwaZulu-Natal, was *Stella Aurorae* meaning 'Star of the Dawn'. The coat of arms of the University of Natal incorporated a five-sided star, probably for the same reason as explained above, namely, the star signalling the birth of Christ. A depiction of the Southern Cross is included in the coat of arms of ***Monash South Africa*** (Johannesburg), an overseas campus of Monash University in Australia. The Southern Cross reflects Australian, rather than South African perceptions. The rising Sun forms part of the coat of arms of the ***Durban University of Technology*** (Durban); the ***University of Fort Hare*** (Alice); the ***University of the Free State*** (Bloemfontein), and the ***University of South Africa*** (Pretoria). The full Sun appears on the coat of arms of the ***University of Limpopo*** (Mankweng/Sovenga).

A significant hill

Thaba-Bosiu or Thaba Bosigo, to the south east of Maseru, is the most important historical site in the country of Lesotho, which is home to most of the Southern Sotho (Ambrose, 1974). The virtually impregnable hilltop was the capital of Moshoeshoe I (Moshesh), the founder of Basutoland (later Lesotho) as a nation state. The hilltop remained the capital from 1824 until the death of Moshoeshoe in 1870. Retention of Thaba-Bosiu by Moshoeshoe was essential for the survival of Lesotho as a state in the 19th century. Thaba-Bosiu, despite numerous attempts by several adversaries, was never taken in battle. It is today steeped in memories of the glorious past, and is the last resting place of the principal chiefs (*marèna*) of Lesotho. The hill was probably given the name of Thaba-Bosiu or 'mountain at night' because it was occupied late on a given day. The name subsequently acquired an enhanced significance, since the belief spread that what was clearly a hill in daylight became a mountain at night (Ambrose, 1974). The principal chiefs in the past, during times of national calamity and danger, used to pray for help at the graves of Moshoeshoe and the other early chiefs (Ashton, 1967). Some principal chiefs still undertake this procedure and sacrifice a beast on such occasions.

Some mythical creatures and beings of the night

There were a number of mythical evil-doers which were active at night, although only a few examples are briefly outlined here. Miller (1979) described the old Swazi belief in an evil wizard or *umtsakatsi* who rides his baboon familiar (constant companion) at night. The wizard sat astride the baboon, facing and grasping its tail like a rein. Anyone unfortunate enough to come across the baboon and its rider during the hours of darkness

was required to remain silent until after dawn, failing which he would become dumb. The wizard returned to his abode before the Sun rose, placing the baboon once again in a pot. The pot was buried in the soil floor of the wizard's hut. It was advisable for every householder to keep the door of his hut firmly shut at night. If the *umtsakatsi* succeeded in burying the baboon-containing pot in the floor of the hut, then the hapless homeowner was viewed as an *umtsakatsi* and punished.

A very similar concept was evident for the Xhosa. In this instance, the baboon familiar was hidden in the sorcerer's hut by day (Miller, 1979; Broster and Bourn, 1981). The sorcerer or *igqwirha* rode the baboon (*imfene*) at night, much as described. When the sorcerer passed a homestead in the moonlight, the children cried out and the dogs barked (responding to the presence of evil). The baboon was invisible during the day, and left the hut at night to suck milk from the udders of nearby cows. A cow with badly scratched and torn udders was thought to have been milked by the baboon. The *imfene* also rides horses, leaving them exhausted and drenched in sweat the next morning. An especially grave insult was to accuse a man of being the master of a baboon (implying that he was a sorcerer).

The Zulu, in common with the Swazi and Xhosa, also believed in an *umthakathi*. Such a wizard was able to exhume the dead, and to bring them back to life by inserting a red hot rod into the corpse (Lugg, 1975). A dwarf-like man or tiny resurrected corpse (*umkhovu*) resulted from this process. The *umkhovu* was trained to ride around on the back of a baboon (facing the tail) on dark nights, casting spells at homesteads. The *umkhovu*, nevertheless, was very afraid of dogs. Dogs thus protected homes from this evil. The only real remedy for the problem involved the use of powerful medicine.

A further Zulu belief involves the *isidawane* (Bulpin, 1977). This creature was about the size of a hyena and ate human brains. The creature usually obtained its food by knocking or calling at the door of a homestead at night. Anyone venturing out was immediately placed in a hole in the creature's back, and carried away to its lair. Bryant (1949) observed that the *isidawane* was especially fond of preying on children.

The themes described above usually had their counterparts amongst other groups in South Africa. For instance, the most feared of all familiars by the Lovedu or Lobedu was the *khidudwane* (plural = *zwidudwane*) (Krige and Krige, 1980). This was a person who had been specially killed by a witch to be a slave. The deceased was therefore no ordinary corpse. When a *khidudwane* was buried, it was only his shadow which went into the grave. The real person had already been enslaved and placed in a large earthen pot or in a cave. The *khidudwane* hoed at night for the witch, or cut poles for building purposes, or was sent on errands of an evil nature. Anyone having the misfortune to meet a *khidudwane* fainted at the sight. Even after treatment by a doctor, his or her body often felt 'dried up' as if there was no blood. There was still a very real fear of the *zwidudwane* in the late 1930s, according to Krige and Krige (1980).

The Khoikhoi had certain nocturnal beliefs concerning the ghosts of the dead, and their much-dreaded activities, which were discussed in some detail by Schapera (1965). One example is that of the Khoikhoi resident in Little Namaqualand south of the Orange River. The male relatives, for a few weeks after the death of a family member, used to visit the

grave every morning before sunrise (in a nude state) and pray to the ghost or *thas*. Nudity was essential to prevent the ghost from catching the men. The men talked to the grave and sprinkled the leaves of *buchu*, an aromatic shrub (evidently *Diosma* spp. known as Bitter Buchu or Bitterboegoe) over the grave. The ghost was beseeched to do no harm to the men and to leave them alone at night. It was thought that a ghost left the grave after a month or so, and entered an animal known as *thas jackals*. The word *jackals* was derived from the Dutch. This animal, 'the house of the ghosts of the deceased people', leaves its shelter only at night and glides along the ground like a shadow. Although no one had ever seen the creature, it was described as having a very large head. The creature was believed to be very strong and immortal and no attempt was ever made to catch it. The animal could only be killed by using a silver bullet (another sign of early interaction with the Dutch). The animal made a 'tha … tha … tha' noise at night, resulting in the Khoikhoi covering themselves with their *karosses*. If the noise was heard while the people were eating their evening meal, then the required action was for each person to throw some food backwards, in order to satisfy the animal and so to avoid any harm. The cry of the creature was said to be much louder than any other nocturnal animal (Schapera, 1965).

The northern San believed in existence after death, sometimes in their own form and sometimes in another form (Schapera, 1965). The dead could even reveal themselves to the living. The San, with the exception of one or two groups, feared the ghosts of the dead, although the degree of fear evidently varied from one group to the next. The Auen, according to one report, distinguished between those who died 'good deaths' and those who experienced 'bad deaths', with the second category being feared after death. A good death (i.e. a natural death) involved dying easily without severe pain beforehand, whereas those who died in great agony (a bad death) were thought to be bewitched or possessed. It was also said that both the 'partly disorganised' Auen and the Naron in the Sandfontein district had the same belief. These two San groups believed in a 'good being' (!khutse) and a 'bad being' or 'Satan' (Gaua, or more correctly: //gãũa or //gãuwa). [The word Gaua, as per the Auen and Naron, can also refer to 'a person who has died'.] Those who died a good death went to !khutse, with the others going to Gaua. The latter often suffered from distress and hunger, in contrast to the former who had a good time and who lived in a state of plenty. Male Auen and Naron informants stated that all the people who died became //gãuwa, but that only the magicians could see the dead. Women informants, however, indicated that only men who had been cut between their eyebrows as part of the puberty rites became //gãuwa. It was these men who could see the deceased, with the women sometimes being able to hear them. Such ghosts walked around at night, and resembled people when observed. The living were afraid of the ghosts, although they did not expect any real harm from the ghosts. Certain precautions were nevertheless taken as part of the funeral ceremony. *Buchu* was sprinkled over the grave to make the ghost of the departed happy, and hence to ensure that the ghost did not return at night to molest the living. Water was poured over or left at the grave to prevent the ghost from interfering with the rain. The bow, quiver and arrows of the deceased were placed at the grave so that the ghost need not return in search of these items (Schapera, 1965).

Riddles and other expressions relating to the Sun

South African oral literature can broadly be grouped into three primary genres (Lestrade, 1966). These are: (a) oral poetry (praise poems and songs), (b) narrative material (myths, legends, fables and folktales), and (c) wisdom-lore (proverbs, riddles and idioms). The riddles, proverbs and other expressions given in this volume constitute a sample. A detailed study of the topic is suggested as one avenue of additional research. Despite concerted efforts, no pertinent Swazi data (available in English) could be found, apart from one praise poem. There is only one entry for the Lemba, a few for the Southern Ndebele, and none for the Northern Ndebele.

Blacking (1961), in a study of Venda riddles, observed that there are marked similarities with some other languages, where the wording of certain Tlôkwa, Sotho and Tsonga riddles is virtually identical to that of the Venda. Further similarities in riddles, proverbs and other expressions (either via language or meaning) will become evident to the reader. A general discussion of African riddles can be found in Doke (1947) and Cole-Beuchat (1957). Evening was the appropriate time for riddles for several southern African groups (Cole-Beuchat, 1957). There appears to be some confusion, particularly in the more recent literature, regarding the occasional use of a question mark at the end of a riddle. It was decided to ignore these rare diacritical marks in the riddles reproduced in English in this book. The reader seeking the original vernacular version of the riddle should consult the stated source of the information. Metaphors are especially common in riddles and proverbs. A frequently encountered sentiment is that the Sun is the supreme ruler of the day, while the Moon is sovereign over everything at night including the stars. The Sun is usually male and the Moon, female.

The Northern Sotho

- Three Tlôkwa riddles are: '*A round thing from the east*' and '*Hlabini's sweet-cane is sometimes sweet and sometimes bitter*' as well as '*A red snuff tin from the east is wanted by all the chiefs*'. **Answer:** 'The sun'. Hlabini is a district in the north eastern part of Polokwane (Pietersburg). People in this district are very fond of sweet-cane and sugar cane. Sweet-cane, sweet-reed or sweet-sorghum refers to *Sorghum bicolour*. Another Tlôkwa riddle is: '*Winter sweet-cane is nice*'. **Answer:** 'The sun in winter' (Nakene, 1943). The clue for one Lovedu or Lobebu riddle describes the chief entering the crimson (muddy) pool. **Answer:** 'Sunset' (Krige and Krige, 1980).

- Other Northern Sotho riddles include the following: '*I walk around the whole day, but leave no tracks*' and also '*The Marula tree of Mmatlou only produces one fruit*'. **Answer:** 'The sun' (Makopo, 1989). The tree is the Marula or Maroela (*Sclerocarya birrea* subsp. *caffra = S. caffra*) Northern Sotho = *morula* (Pooley, 1993). A further riddle reads: '*The large, young uncircumcised man of Boroka* [the area of the Lovedu] *who holds an assegai ready to break through*'. **Answer:** 'The sun and its rays' (Makopo, 1989). A very similar riddle is: '*The big uncircumcised boy of the east who holds the assegais with lightning*'. **Answer:** 'A child of the sun' (Endemann and Hoffmann, 1927). Another riddle refers to a beetle swimming in a pool of water or a dam. The water does not retain any impression of the beetle's progress, which is like the daily passage of the Sun (Makopo, 1989).

The Southern Sotho (Basotho)

- One Basotho riddle is: '*The brown locust comes from the Pedi country—E. Tvl.—holding a bundle of spears*'. **Answer:** 'The sun's rays' (Norton and Velaphe, 1924).

- Further Basotho riddles include: '*I shut my father's cattle into the kraal and I am puzzled how the god of my enemy could have got in*'. **Answer:** 'My shadow' (Hamnett, 1997). Another riddle with the same response is: '*I tried to come here and he turned hither with me*' (Norton and Velaphe, 1924). A related Basotho proverb reads: '*A person who has a shadow*', which refers to a respectable person, one who is really somebody (Mokitimi, 1997). Likewise of interest is that '*A person dies with his/her shadow*'. The explanation here is that when one dies, one leaves nothing from one's body for anyone else (Mokitimi, 1997).

- Other proverbs are: '*The dawn which gives birth to several small dawns*', which is another way of saying that procrastination is the thief of time. It is also said that '*Night does not disappear twice before daytime*', i.e. the same problem is not expected to occur more than once. Of further interest is that '*Darkness is a brother to a thief*', which relates to the fact that criminal activities occur at night (Mokitimi, 1997).

- Additional Basotho proverbs include: '*Days bewitch each other*'. The reasoning is that some days bring luck while others bring misfortune. Also relevant is that '*Daytime is medicine*' which means that a sick person is often better during the day rather than at night. A similar proverb is that '*Affairs are healed by the light of day*', where sunrise may be beneficial to those who are in trouble. It is also stated that '*A hot, sunny day has driven the crocodile from the deep pool*', which describes a rich man who has become poor. In much the same vein is the statement that '*The sun has scorched the manes of the blesbuck*', i.e. there is no food. A more direct proverb dealing with poverty is the following: '*The sun is at the innermost part of the house*'. The explanation is that 'the sun shines inside' because the roof of the house has caved in. This is a different way of saying that no food is available (Mokitimi, 1997).

- A special blessing in the past was: '*May your feet go softly all your days, and may your face be as the Morning Sun!*' One means of expressing consolation was to exclaim: '*Break not your heart, sorrow will roll away like mists at sunrise*' (Martin, 1903).

The Tswana

- Three Tswana (BaKxatla, Kxatla, Bakgatla or Kgatla) riddles are as follows: '*Tell me: a man carries a bundle of spears, we do not know where he comes from and goes*'. **Answer:** 'It is the sun'. The second riddle reads: '*Tell me: the bull in the east which gives birth to calves and eats them*'. **Answer:** 'It is the sun (or the day—a reference to the daily cycle of the sun)'. A third riddle is: '*Tell me: I go south, I take care of the black thing, I come back and still take care of it*'. **Answer:** 'It is my shadow' (Schapera, 1932). Another Bakgatla riddle is: '*Fallen into bottomless pit, never escape*'. **Answer:** 'Darkness' (Pilane and Mitchison, 1974). Also: '*I stroke chilliness, a teasing comes out through my nails*'. **Answer:** 'Frost biting one's fingers and toes on a cold winter night, which sting as they warm up' (Pilane and Mitchison, 1974).

- A Tswana proverb is: '*The wife, like the earth-bee, provides even in winter*'. The reasoning in this case is that a wife will do her best to look after her family, even in the most adverse of circumstances. An additional proverb states: '*The winter tortoise is known by the one who put it there*'. This proverb refers to a situation where something abnormal happens and the person responsible knows the reason for such a state of affairs. Another Tswana proverb reads: '*Stones lying apart come together at night*' meaning that a friend in need is a friend indeed. When times are good one does not know one's true friends, but when there are real difficulties true friends quickly become apparent. A further proverb is: '*In the morning I thank my guide of the night*'. People often resent good advice given for their benefit, and it is only when they have seen the results thereof that they are appreciative. A different proverb is: '*When left in the sun it removes itself to the shade*'. A person placed in a difficult situation ensures that he escapes from these problems (Campbell, 1972). Rather more obscure is the following proverb: '*It is the darkness, not a small thing, that kills*'. This is another way of saying that it is better to have a little rather than nothing at all, and that one should look after the little that one has (Kuzwayo, 1998). A Tlhaping proverb is: '*There are many dawns (or daysprings)*' [St. Lys, 1916].

The Tsonga

- A Tsonga riddle reads: '*What goes without being seen*'. **One answer is:** 'The sun' (Junod and Jaques, 1936).

- Also descriptive is: '*Two crosses*'. **Answer:** 'The sun and the moon' (Junod and Jaques, 1936).

- '*The hen has crowed and the cock has cackled*'. **Answer:** 'Today there is such a bad mist that the sun cannot appear' (Junod and Jaques, 1936).

- '*What is the thing which swallows people at sundown*'. **Answer:** 'The huts' (Junod and Jaques, 1936).

- '*I have driven my ox to the Bileni (Lower Limpopo) and I have come back with it*'. **Answer:** 'My shadow'. A related riddle is: '*What is it that goes with a tree and goes with us men*'. **Answer:** 'The shade'. A similar riddle is: '*What is the thing up the trunk of which one cannot climb*'. **One answer is:** 'The shadow' (Junod and Jaques, 1936).

- '*You are destroying shade, while you are betrayed by dull weather*'. **Answer:** 'Do not put your trust in the beautiful things of today, forgetting the bad ones of yesterday'. It is stupid to cut down a shady tree because the sky happens to be overcast at the time (Junod and Jaques, 1936).

- '*You destroy the shade (of a tree) and watch the cloudy sky*'. This is a reference to a man who chases his wife away and looks at a woman passing by. Expressed in a different way: '*Using the timber of a shady tree, you will further miss its shade and regret*' (Junod and Jaques, 1936).

- '*What is it that walks with four legs in the morning, with two legs at midday, and with three legs in the evening, when the sun has gone down*'. **Answer:** 'The man'.

The explanation here is that there are various ages of man: a crawling baby, walking upright, and walking with a stick (Junod and Jaques, 1936).

- '*A little bird flutters near the well*'. **Answer:** 'Make haste, the sun is down' (Junod and Jaques, 1936).

- '*The small crown of a hut looking towards the sun*'. **Answer:** 'To eat stretching up the nape of the neck' (Junod and Jaques, 1936).

- '*Wealth is dew*'. A man's wealth dissipates like dew in the Sun (Junod and Jaques, 1936).

- '*Who leads me in the night, I will thank him when the day breaks*'. A man should only say he is safe when he reaches his home (Junod and Jaques, 1936).

- '*One does not walk at night once only*'. A person does not do something, especially evil, only once (Junod and Jaques, 1936).

- '*If you whistle at night, it is taboo*'. A man who likes to go out at night 'has some affair', i.e. he is up to something (Junod and Jaques, 1936).

- '*The crow which says: "I don't need to be taught" goes out of the village at night, Or: entered the village at daylight*'. A person must not say that he already knows when told something; he will encounter trouble (if he does not listen to the warning, i.e. the deaf one who has no ears) (Junod and Jaques, 1936).

The Venda

- A Venda riddle is: '*A big red snuff-box on Mount Luonde*'. **Answer:** 'The setting sun'. Luonde is the Venda name for Piesangkop, which is to the east of Louis Trichardt. This topographical feature is a prominent landmark, is often mentioned in Venda songs and praises, and was once the 'headquarters' of one of the Mukwevho sub-groups (Blacking, 1961).

- The next riddle describes the welcome rays of the Sun: '*A tree fell down, and the old women ran to collect the dry twigs for making fires*'. This situation mainly refers to the winter months when people take every opportunity of warming themselves in the Sun (Blacking, 1961).

- The following riddles also relate to the Sun. '*My father's young wives pounded all night long and even after sunrise*'. **Answer:** ' "Marula" fruits, when they fall (since they fall day and night when they are ripe)'. Women usually pound at night, since it is cooler. Young wives relieve senior wives of the household chores, so that senior wives often encourage their husbands to be polygynous. A virtually identical riddle with the same reference to falling Marula fruits is: '*My father's wife pounded all night, waiting for the sun to rise*' (Blacking, 1961).

- Another riddle enquires: '*What accompanies me wherever I go and then back home*'. **Answer:** 'My shadow' (Stayt, 1931). A very similar version with the same response is: '*I went to the South and came back with it*' (Blacking, 1961).

- An aquatic riddle is: '*What walks by night and by day*'. **Answer:** 'A river' (Blacking, 1961).

- One Venda expression is: '*In the sun*', which refers to someone or some family experiencing difficulties or having troubles. A somewhat related proverb is: '*One doesn't take leave at noon*'. The explanation is that there is still time to get together, i.e. to negotiate, since the final moment has not yet arrived (van Warmelo, 1989).

- A further Venda proverb reads: '*The dawn is the setting of the sun*'. Life, in other words, is continuous. A very similar proverb is: '*Dawns follow one another*' meaning that life is always followed by yet another; or that one man's blood is another man's poison. A rather different proverb is: '*There is no sun which does not set*'. This is one way of saying that everything comes to an end. A relevant proverb in a Christian context is: '*He who has bewitched the dawn has bewitched the setting of the sun*'. The explanation is that it is only the Creator who is able to control the beginning and the end of life. Likewise pertinent to life and death is this proverb: '*Should the sun shine, bask in it for tomorrow it may start raining continuously*'. We must make hay while the Sun shines (Neluvhalani, 1997).

- The role of the father in a Venda household is explained in the next proverb: '*The fowl cannot tell whether it is dawn, it is only the cock that does so*'. What the head of the family decides is taken into consideration, and is final (Neluvhalani, 1997).

- A legal proverb reads: '*The cracks of the sun, meaning cracks caused by the heat of the sun on the soil, are revived by rain*'. A case is judged on the basis of the law which Neluvhalani (1997) indicates is Venda customary law.

- A clearly more modern proverb is: '*When the headman lacks something to say or find fault with, he says: "The poles are in the sun!" meaning, they should be removed from the sun as though the sun will harm them*'. The proverb states that an employer is always annoyed by workers who want to rest. The employer is only interested in seeing that the work goes on (Neluvhalani, 1997).

- Another Venda riddle is: '*Hyena, run away from dawn, a sorcerer should not be seen*'. The explanation is that the power of sin is darkness. In similar vein is the following: '*After sunset, put away your axe the night is something fearsome and it can bite*'. Anything done in darkness is dangerous. Likewise: '*The dodger dodges an axe during the day and owls during the night*'. The meaning here is that an evil person never has rest, or that there is no place to hide (Neluvhalani, 1997).

- Also of interest is: '*Even though servants eat meat, travelling at night is theirs*'. This rather obscure proverb indicates that those who are in someone's good books (favour) are always closely watched, or that the 'blue-eyed man' will always find himself too busy (Neluvhalani, 1997).

- A further proverb is: '*No matter how evil the baboon is, it does not eat maize at night*'. A person, in other words, cannot keep on making mistakes everyday (Neluvhalani, 1997).

- A different proverb reads: '*One's guide through the night is thanked in the morning*'. It is a pity when someone realizes too late how other people have helped them (Neluvhalani, 1997).

- This proverb closely resembles the Lemba proverb below: '*The raven said: "I seek no advice!" It then flew past the village after sunset*'. One should always take heed of fatherly advice (Neluvhalani, 1997).

- Two oral praises of a Venda chief (Shewasse) were: '*God of heaven and earth*', and '*light of the world*' (Wessmann, 1908).

The Lemba

- One Lemba proverb is: '*The crow said, I do not need your advice, and passed a home very late at night*'. The explanation is that those who do not take advice will be in trouble (le Roux, 2005).

The Xhosa

- A Xhosa riddle reads: '*I have a blanket of mine; it is worn by everybody*'. **Answer:** 'It is the sun' (Sobukwe, 1971).

- Other riddles include: '*I have twins of mine; there are two of them. The elder is white; the younger is black*'. **Answer:** 'It is day and night'. A different version with the same answer is: '*I have young men of mine; there are two of them; they chase each other. One is white and the other is black. The white one is in front and the black one is behind. Sometimes this black one is left far behind, while at other times he closes the gap*' (Sobukwe, 1971). The latter riddle appears to describe the varying lengths of daylight over the seasons.

- Another Xhosa riddle is: '*I have a person of mine; in the morning he walks on four legs, during the day he walks on two, in the evening he walks on three*'. **Answer:** 'It is a person when he is an infant, crawling, when he is grown up and when he is old, leaning on a staff' (Sobukwe, 1971).

- Further riddles are: '*I have people of mine; they are the rope and the milk-pail (i.e. they are very close friends) at night*'. **Answer:** 'It is a person and his shadow'. Another version with the same answer is: '*I have a thing of mine; it is always dressed in the same clothes*'. Likewise: '*I have a thing of mine; no matter how much you swim and dive, it will never be wet*'. A slight variation is: '*I have a person of mine; no matter how fast I run, I do not catch up with him*'. **Answer:** 'It is one's shadow when it is in front' (Sobukwe, 1971). A pertinent Xhosa expression is: '*He has no shade*'. This statement means that the person has no weight (strength) of character, i.e. no self respect (Bud-M'belle, 1903).

- Some Xhosa seasonal riddles are: '*I have a person of mine; in summer he becomes red and in winter he becomes green*'. **Answer:** 'It is the Cape aloe'. Variations on this theme with the same response include: (a) '*I have a fellow of mine; he is strong, and clearly so in winter*' (b) '*I have a young man of mine; he is always dressed in a pair of khaki trousers, a green jacket and sometimes he wears a red crown*' ['It is the Cape aloe when it blossoms'] and (c) '*I have prayer-meeting women of mine; they wear red head-gear and green blouses and brown dresses*' ['It is the Cape aloes when they blossom'] (Sobukwe, 1971). A further expression is that '*The swallow has anticipated summer*', which refers to someone who has spoken or acted too soon, without considering the consequences of his words or actions (Calana and Holo, 2002).

- An unusual Xhosa riddle is: '*I have a river; it attracted me from afar; I arrived to find it dry*'. **Answer:** 'It is a mirage' (Sobukwe, 1971).

- One Xhosa expression is: '*The sun does not set without some news*'. Various events occur each and every day. A related observation is: '*Dawn does not come twice to awaken a person*'. One should seize the first opportunity to do something or act because there might not be a second chance (Soga, 1931). Also relevant is that '*Nothing occurs that has not occurred*' meaning that there is 'nothing new under the sun' (Calana and Holo, 2002).

- An ominous Xhosa expression is: '*To see for the last time*', i.e. to look at the Sun for the last time. This was said of someone who was about to be put to death (Kropf and Godfrey, 1915).

- Another Xhosa saying is that '*The mist and the sun are together*', which denotes a very great number of things (Theal, 1886).

The Swazi

- Part of a praise song for Ludonga II (a Swazi chief in more historical times) is: '*You are like the sun rising in the East at Loziyingila of Makasane*'. Ludonga was noted for his attack on Makasane, a Tsonga chief and his people, resident at Loziyingila in the east (Cook, 1931).

The Zulu

- Some Zulu riddles include the following: '*The king of the earth*', or '*A person who doesn't die in this whole wide world*', or '*My person who is beloved of all, there is no one who does not love him*'. **Answer:** 'The sun' (Khumalo, 1974). The same response is given for: '*I riddle you with my king that when [he] approaches all other people kneel down*' (Mathenjwa, 2000).

- '*Two policemen who work alternately*'. **Answer:** 'The sun and the moon' (Khumalo, 1974). The same answer is given for: '*I riddle you with my two kings that rule in turn*' (Mathenjwa, 2000). A further example with the same response is: '*I riddle you with my gentleman who does not get tired of travelling on one route and after some time he disappears, [and is] then followed by a lady who also travels on the same route. Both of them used not to meet except when the lady has decided to wait for the gentleman for a while*' (Mathenjwa, 2000).

- The Sun was invoked in the oral praises or *izibongo* of the earlier Zulu kings. One example regarding Cetshwayo kaMpande (the last Zulu king of the old order) is: '*The sun that rises between both hills / Between the Isigwegwe and Langakazi*' (Samuelson, 1974). There is a railway siding slightly to the north east of Ulundi, named iLangakazi, which may be the locality in question. Powerful Zulu chiefs are thought to throw a long shadow, with the royal house overshadowing all others (Raum, 1973). The shadow of the royal house resembles the shadows cast by the sinking Sun on the slopes of mountains (i.e. it is endless). The ancient name of the Zulu royal house was Mageba, which is derived from *ukuGeba* or 'to incline on the sides of a hill like the shadows of evening'. The word 'shadow' is actually an epithet (term) for the king. In certain praises the Zulu kings are called 'the long shadow of the setting sun' [which surpasses all others]. The long shadow is a metaphor for the ascendancy of the king. Expressed in a different way, this refers to the fact that the supreme political authority (the king) has 'the longest shadow' and has immense dignity in comparison with other Zulu. The identification of the king with a shadow even extends to the ancestors (*amadlozi*) who are also known as 'shadows' (Raum, 1973).

- '*A person who is like the sun at which Nqoboka warms himself*'. That person is like the rising Sun since Nqoboka lived near the sea 'where the sun rises'. The description relates to a beautiful and fair person, i.e. light brown or yellow skinned in colour (Bryant, 1905).

- '*No sun sets (day passes) without its troubles (events or happenings)*', i.e. '*Every day has its own troubles or events*' (Dunning, [194?]).

- '*You (had better) hold fast to it (this day's sun, right up) to the time of its setting*'. People should make the most of today because tomorrow may be bad for them. Another way of expressing this sentiment is: '*The day is yours for the present, but I will have it out with you after*' (Dunning, [194?]).

- '*Look at it (sun) for the last*'. Such words were often heard from the mouth of the king when he sentenced someone to death. There would not be another opportunity for the condemned to see the Sun. When people quarrel with each other this expression is an indication that a very critical situation has developed (Nyembezi, 1954). A deadly threat levelled at another is: '*His head will be a dormouse's nest before the sun sets*' (Raum, 1973).

- '*It (sun) has set out of the way*'. A person in this situation is in extreme difficulty. Whether the Sun rises or sets is of no concern at all. Events, for such a person, do not seem to happen in the normal manner (Nyembezi, 1954).

- '*Hold it (sun) that it does not set*'. A child who is in trouble at home runs away to avoid parental wrath. The old people do not bother to chase after the child, secure in the knowledge that the child, due to a fear of the dark, will soon return home. Children believe that there is always something waiting in the darkness to pounce on them. The old people know that a child's fear of the dark is their firm ally. A child running away from home to escape punishment is warned that he or she does so in vain (Nyembezi, 1954).

- '*The sun may fall and be picked up by fowls*'. This expression describes something that can never happen (Nyembezi, 1954). A related observation is: '*A person who is afflicted under the sun*' (Bryant, 1905). The person concerned is troubled by the 'fire of desires' which he can never attain, and which cannot be realized.

- '*No dew ever competed with the sun*'. The dew evaporates once the Sun rises. This expression relates to a situation of unequal competition, in the same way that the dew cannot compete with the heat of the Sun (Nyembezi, 1954).

- '*People wearing white hats, who take them off as soon as their king appears*', or '*Young men wearing silver hats, who take them off as soon as their king appears*'. **Answer:** 'Grass, dew and the sun'. The term *white* in the first riddle refers to 'silver-coloured' (Khumalo, 1974).

- '*My people dressed in white; when their king appears, they flee*'. **Answer:** 'Mist and the sun' (Khumalo, 1974).

- '*Those of the family circle eat, the lizards bask in the sun*'. People who are not family should not expect to be treated as family members. They must instead be satisfied with what they receive. This expression does not only refer to blood relationships, but is also applicable when favouritism is evident (Nyembezi, 1954).

- '*Where the duiker* [a small antelope] *eats in the daytime (broad daylight)*'. The expression describes a loose and disorderly homestead (Dunning, [194?]).

- '*People who wither in winter*'. **Answer:** 'Flowers' (Khumalo, 1974).

- '*A person who goes away in winter, who likes warmth*'. **Answer:** 'A swallow' (Khumalo, 1974).

- '*He walks sideways like the winter sun*'. The Sun, in winter, does not rise very high in the sky, and seems 'to move more towards the side in the sky'. The reference in this case is to a person 'who adopts new paths in order to avoid people', i.e. he is like the winter Sun (Nyembezi, 1954).

- '*He basks in both suns*'. The two suns are the morning Sun and the afternoon Sun. Elderly people enjoy sitting in the sunshine. They sit outside in the morning to warm themselves (clearly not in mid-summer) and change their position as the position of the Sun changes. They go back into the house when it is too cold to stay outside. This is a description of old age (Nyembezi, 1954).

- '*A puzzle: the problem is at the gate*'. **Answer:** 'An old man basking in the sun'. The explanation here is that old Zulu men did not work and spent the day basking in the Sun. Their favourite basking place was near the gate of the cattle enclosure (Khumalo, 1974).

- '*The attire killed the sun*'. A reference to someone who is very well dressed. Their appearance 'puts the sun in the shade' (Nyembezi, 1954).

- '*Two people who are afraid of each other, and keep looking for each other, but do not find each other*'. **Answer:** 'The sun and a shadow' (Khumalo, 1974).

- '*A person I go away with and sit with*', or '*A person who does not leave your side even when you run*', or '*A person who refuses to travel on his own, but when you leave he says "You won't leave me behind"* '. **Answer:** 'A shadow' (Khumalo, 1974).

- '*My cow which walks on four legs in the morning, on two at noon and on three in the afternoon*'. **Answer:** 'The human life-cycle'. First one crawls, then walks, and finally one uses a walking stick (Khumalo, 1974).

- The call of the Dark-capped Bulbul or Swartoogtiptol (*Pycnonotus tricolor*) cockbird, being interpreted by the Zulu, constitutes an interesting story (Dunning, [194?]). It is related that the bird (Zulu = *iphothwe* or *ipogota*) asks the herd-boys when they will return with the cattle, and whether they will be able to find all the cattle since some of the cattle may be missing. The bird also enquires whether the herd-boys cannot see that there is drought and famine in the land. The bird notes that the herd-boys have taken their throwing-sticks with them, that the Sun has already set, and that the species under discussion is the last of all the birds to retire (roost) for the night. The bird is very alarmed that the herd-boys have taken their sticks with them, given that the Sun is below the horizon. The herd-boys are clearly up to mischief because no other birds are around at that time of day. It is for this very reason that the bird does his best to dissuade the herd-boys from following their planned course of action. The bird again points out that the Sun has set, and that the herd-boys will be so engrossed in pelting the bird and its fellows that they will overlook the fact that it is growing dark, and that some of the cattle may have strayed. The bird stresses that there is drought and famine and that everyone is on short food rations. There will be a shortage of *amasi* (fermented or sour milk) at the homestead, to add to the existing hardship, if all the cattle are not brought in for the night. The herd-boys will be thoroughly disciplined because the already limited amount of *amasi* available will be further reduced by the number of cattle not returned in the evening, as they should be. The herd-boys, then, should concentrate on the cattle to avoid trouble, and leave the bird alone (Dunning, [194?]).

The Southern Ndebele

- One Southern Ndebele riddle reads: '*By my fire in which we bask with the lizards*'. **Answer:** 'The sun' (Mahlangu, 1988).

- Another Southern Ndebele riddle is: '*With my person though you run as fast as you can, you will never leave him behind*'. **Answer:** 'The shadow' (Mahlangu, 1988).

- One of the praises of Mabhoko, a 19th century Southern Ndebele chief and hero of the people is: '*Sun on high / that scorched the sorghum*' (Groenewald, 2001).

Some stories and poems involving the Sun

San and Khoikhoi stories

Readers are reminded that there is a substantial body of knowledge on /Xam mythology and way of life. We have already seen that G.R. von Wielligh is one source of information. The primary source of /Xam material (together with other San data) was compiled by Dr Wilhelm Heinrich Immanuel Bleek, a German-born linguist, and his sister-in-law Lucy Lloyd, in the period 1870–1884. Both lived in Cape Town and recorded oral information provided by a few key /Xam informants. These San were convicts from further north in the old Cape Colony who served their sentences working at the harbour, and who were released into the care and custody of the Bleeks. A considerable body of work was undertaken at a much later stage by Bleek's daughter, Dorothea Bleek, in respect of South Africa and elsewhere. Some of the early research material was published by Bleek and Lloyd (1911) in the form of *Specimens of Bushman Folklore*, which contains a total of 87 entries. The book has since been reprinted twice, most recently in 2000. A summary of the progress of the work by the Bleek family, with details of additional publications, is available in Lewis-Williams (2002). Five of the San informants are mentioned in the current book (the one you are now reading). These are: (a) /A!kunta, (b) Dia!kwain or Diä!kwain, (c) /Han≠kasso or /Han≠kass'o, (d) //Kabbo, and (e) !Nanni. The first four informants were convicted /Xam men. !Nanni was a free !Kung or Ju/'hoansi youth who made his own way to Cape Town (Lewis-Williams, 2002). Part of the material collected by the Bleeks from !Nanni and other youthful informants thus concerns the !Kung.

The narratives or stories (termed *kukummi* by the /Xam) and other information recorded and compiled by the Bleeks, totalling almost 12 000 notebook pages, can be examined on the Lucy Lloyd Archive, Resource and Exhibition Centre (the Bleek and Lloyd Archive) website. See: http://www.lloydbleekcollection.cs.uct.ac.za. About 17% of the Bleek and Lloyd manuscripts deal with beliefs and observations of celestial bodies (Hollmann, 2007). Additional information on the /Xam and to some extent the !Kung remains to be recovered from the archive, which is beyond the scope of the present book. The archive has a comprehensive index which should be searched using key words such as Sun, Moon, star and eclipse. Further data, likewise, should be retrieved from the books written by von Wielligh. The information provided by the Bleeks' informants and those of von Wielligh constitute the main, but not the only sources of data on the /Xam. Other minor sources are official reports as well as accounts by missionaries and travellers, mostly written in the late 18th century and in the first half of the 19th century (Hewitt, 2008).

The following 15 /Xam narratives with one !Kung entry can be found in *Specimens of Bushman Folklore*, and are relevant to the discussion. The !Kung texts are all in the Appendix of the book, and were collected by Lucy Lloyd in the years 1879–1882 (Hewitt, 2008).

Sun

- A Bushman, Becoming Faint From The Sun's Heat When Returning Home, Throws Earth Into The Air, That Those At Home May See The Dust And Come To Help Him;
- Certain Hunting Observances, Called !Nanna-Sse;
- The Children Are Sent To Throw The Sleeping Sun Into The Sky.

Moon

- Prayer To The Young Moon (an !Kung text);
- The Moon Is Not To Be Looked At When Game Has Been Shot;
- The Origin of Death; Preceded By A Prayer Addressed To The Young Moon;
- The Relations Of Wind, Moon, And Cloud To Human Beings After Death.

Stars

- A Song Sung By The Star !Gaunu, And Especially By Bushman Women;
- Death;
- Doings And Prayers When Canopus And Sirius Come Out;
- Habits of the Bat and the Porcupine;
- !Ko-G!nuing-Tara, Wife Of The Dawn's-Heart Star, Jupiter;
- Sirius And Canopus;
- The Girl Of The Early Race, Who Made Stars;
- The Great Star, !Gaunu, Which, Singing, Named The Stars;
- What The Stars Say, And A Prayer To A Star.

/Xam narratives in their original form are sometimes not that easy to understand, due to the often repetitive and ambiguous nature of the text. It is this ambiguity which gives rise to the different interpretations found in the literature. There is simply no living person remaining to clarify and explain various concepts. Bleek (1929) explained that the /Xam had plenty of leisure-time during the day and especially at night, when stories were told at length and without any haste, to entertain and inform. Speech was virtually a 'continual social activity' (Hewitt, 2008). Several authors over the years have interpreted /Xam and other narratives and themes according to their own requirements, and have published this material. A partial listing of such stories can be found in Jenkins (2010). What this means in reality is that the reader new to San culture may become bewildered by the avalanche of documents, papers and books available, but which are usually based on the primary /Xam sources. Schmidt (1982) stressed the often-tangled nature of San and Khoikhoi stories, which were sometimes incorrectly attributed to the wrong group (i.e. Khoikhoi stories being described as those of the San and *vice versa*). Schmidt noted how certain authors had copied and re-copied stories without indicating the original source of the material. Also problematic is that a number of authors may have added their own content (drawn purely from their imagination) to the 'original' stories supposedly obtained directly from San and Khoikhoi informants. It is, further, sometimes difficult to know which stories really are of San and Khoikhoi origin, according to Schmidt (1982), given the close relationship between the two peoples. (We saw this linkage earlier in terms of religion.) It is likewise important to bear in mind that San and Khoikhoi stories, being oral, are often variants of a particular theme. The details may change, although the key elements of the story remain the same (a point readily apparent below). There is, accordingly, no *one* 'correct' version. A related issue is that a number of writers have taken San and Khoikhoi stories and re-worked the material in the form of poetry. It is a moot point to what extent the original meaning and context has been retained in these poems.

An important source of Khoikhoi stories is Bleek (1864). The book has a chapter on Sun and Moon Fables. In terms of the Sun these are: *Why Has Jackal a Long Black Stripe on His Back?* and *The Horse Cursed by the Sun*. Virtually the same two stories are given in Honey (1910). Schmidt (1982) observed that there are no San stories in Honey's book, and that most of the material was drawn from the Khoikhoi. The remaining stories constitute Afrikaans or African folklore. Four northern or Kalahari San stories concerning the Sun can be found in Fourie (1994). These are: (a) *A Story of the Sun*, (b) *How Jackal's Back Became Black* (much the same as the above-mentioned jackal story), (c) *Why Ostrich Has Only Two Legs*, and (d) *The Brave Coward*. One Ju/'hoansi San story concerning the Sun is: *The Sun's Child*. This story, and other such stories, were originally recorded in Botswana and Namibia in the years 1971–2006, and were later transcribed at Nyae Nyae in north eastern Namibia. The stories are available in Biesele [2010]. Two stories on the Sun (*How the Jackal Got His Stripe* and *The Sun*) are given in Metelerkamp (1914). An illustrated booklet with 10 short stories, including one San story about the Sun, was published by Snyman, Ntuli and Ntuli (2009).

The following story, as indicated, has been told and retold at different times by both the Khoikhoi and the San, and in various ways. The version given here (*The Jackal and a Sun Child*) was obtained from Miller (1979). It appears that Miller derived the story from Engelbrecht (1936), since the Miller version is almost identical to that described by Engelbrecht in his book on Korana customs and history. The story explains how the jackal came to have a black-coloured back. The species in question is the Black-backed Jackal or Rooijakkals (*Canis mesomelas*). These animals are mainly scavengers, but also prey on insects, birds and small mammals. The black and white 'saddle' on its back is characteristic of the animal (National Parks Board, 1980). One day a little girl was sitting in a tree when a jackal came past. The jackal asked the girl (a Sun child) why she was sitting in the tree. The girl explained that she was feeling tired. The jackal kindly offered to carry her home on his back. This offer was haughtily refused. The jackal eventually persuaded the girl to ride on his back. After a short while, the jackal began to feel uncomfortable, even although the girl was small and did not weigh much. The problem was the immense heat of the Sun child, which was starting to singe the jackal's back. The jackal first offered to use his bow and arrow to shoot a pretty bird for the girl (hoping to get her off his back). She refused. The jackal pleaded with, and finally threatened the girl. He stated that he would jump into some water, or sting her with his secret sting. The Sun child simply laughed. With a howl, the jackal leapt into a thick bush, brushing the girl off his back. The singed and sorrowful jackal disappeared into the veld, forever marked by his encounter with the Sun child (Miller, 1979). Dornan (1921) gives a slightly different Khoikhoi version involving the jackal and the Sun (the latter in the form of a boy); and also the horse and the ox, instead of the jackal. The horse, once caught by the Sun, cannot bear the weight of the Sun and is cursed with death by the Sun, having previously been immortal. The ox carries the Sun without difficulty and is good tempered. Dornan (1921) observed that the Khoikhoi were used to riding oxen, so it was natural for them to hold the ox in greater esteem than the horse.

Other stories

It was decided to list only those stories in this chapter and in other chapters of the book which were of a given antiquity, unless there was clear evidence that the original information had been collected or transcribed from authentic sources. Some flexibility is required, nevertheless. There is little point in listing *all* stories and books which are in some way relevant to the topic, but which are simply the products of a particular author's imagination, or are recycled versions of earlier material. An obvious difficulty concerns material written in the vernacular, and which has not been translated into English or Afrikaans (as a common literary platform). Nothing can be done about such stories until they have received academic attention.

One animal story concerning the Sun (*Why the Hippopotamus Lives in Water*) is based on Ferreira (2003). King Lion called all the animals together, many, many years ago to give each species a habitat (a place to live). The dassie (rock rabbit) wanted to live amongst rocks, the monkeys near trees, and the white rhinoceros where there was plenty of grass to eat. The hippopotamus wanted to live in water, explaining that the Sun was too hot for his sensitive skin, and that he would die if he stayed in the Sun for too long. The crocodile objected to this plan, maintaining that the hippopotamus with his large mouth would scoop up many fish with just one bite, leaving the crocodile with nothing. The hippopotamus insisted that he must live in water, and that he did not like fish. The hippopotamus promised never to eat fish, and to feed on land vegetation. The rest of the animals were not convinced and wanted to know how they could trust the hippopotamus to keep his word. The hippopotamus told them that every time he defecated, he would scatter his dung with his tail, so that everyone could see that there were no fish bones in the dung. The hippopotamus has always done exactly that. This story appears in various guises in different publications, although the core details regarding the hippopotamus remain the same. It would seem that the story was originally derived from the Kalahari San (van der Post, 1973).

An early Southern Sotho book of relevance to Ntsoanasatsi was entitled: *Moeti oa Bochabela* (= The East-bound Traveller *or* The Traveller to the East). The book, written by Thomas Mopoku Mofolo (1876–1948), was published in Morija in Lesotho in 1907. The book was translated into English by Hugh Ashton, and was published in London in 1934 (Couzens, 1984). [Note that Ashton himself states that the translated version of the book: *The Traveller of the East* was published in 1931. See Ashton (1967).] The book is a Christian allegory which draws heavily from *Pilgrim's Progress* (one of the three most-widely read books by Africans in South Africa at the time). The book, as per Couzens, skilfully integrates the Christian allegory into Basotho folktales, legends, history and customs. The story is that of a Basotho man, Fekisi, who becomes disgusted by the immoral habits, such as drunkenness, of his fellow villagers. Fekisi has a vision of a mythical Sotho monster, known as Kholumolumo, which becomes 'an allegory of Evil' in Mofolo's book. Fekisi embarks on a journey to the east (actually north east) to find Ntsoanasatsi. Couzens observed that Fekisi is 'returning to a kind of creation myth', given the significance of the hill (the origin of the Sotho people). The landscapes described in the book are somewhat at variance with the truth, since Fekisi crosses deserts, indicative of hardship, to reach the sea. There he meets white men who transport him across the sea

to another land in the east. Fekisi is later shown a 'large and beautiful building, decorated everywhere, where prayers were made to God'. Fekisi is impressed by the church, which is 'filled with peace', although it is not his final destination. It is not Ntsoanasatsi. Fekisi addresses God stating that God has shown him in a dream which direction he should take. Fekisi saw Ntsoanasatsi, but does not see it where he is now. Fekisi asks God whether he should travel further because people say that there is no Ntsoanasatsi on Earth.

Finally on Christmas Day, through communion, Fekisi enters the Holy City. Couzens speculated whether there is a trace of Natal in this regard (an eastern territory named by Vasco da Gama on Christmas Day). Fekisi is astonished to find a great variety of people in this locality, far exceeding the inhabitants of South Africa with whom he is familiar (i.e. the Basotho, the Zulu and others). Fekisi is amazed at the strength of God, in finding this stunning human diversity quite beyond his experience. Couzens notes that the book, amongst other things, reflects the expanding horizons of travel literature, and hints at loyalties beyond group (tribal) identity, namely, those of nationalism and wider alliances. The latter point is stressed since the people of the Kingdom of God are not divided. Mofolo's vision is therefore one of unity and progress (as in *Pilgrim's Progress*) with a measure of optimism about the future. Flexibility in society will henceforth permit social advancement and better circumstances (Couzens, 1984). A relevant Northern Sotho story is that of *Masa (The Dawn)* in which Dawn is personified (Franz, 1936).

The Sun is indirectly involved in a Xhosa story entitled: *The Story of Tangalimlibo*, which was recorded by Theal (1886). The story concerns a girl, Tangalimlibo, who never went outside in daylight, only venturing forth at night. She was later given the name Sihamba Ngenyanga or 'The Walker by Moonlight' after her marriage. A popular version of the story (*Daughter of the Moonlight*) can be found in Stewart (1994).

A story entitled: *Why the Sun Shines Every Day* comes from the Tshindao-speaking people of Gazaland (Gaza Province) in southern Mozambique. Tshindao (now known *inter alia* as Chindau) is a Shona dialect. The story, retold by Kidd (1906), is beyond the geographic and cultural scope of the present book, but is interesting, nevertheless. It is related that a long time ago, an old woman and her grandson caught the Sun, and placed him (the Sun) in a large earthen pot. The old woman was summoned to a beer-drink at the homestead of the local chief. The grandmother instructed her grandson not to uncover the pot in her absence. The old woman spent two days drinking beer with the chief and others. The grandson, in the mean time, became curious and wondered why his grandmother had told him not to remove the cover of the pot. The child duly removed the lid, and as he was about to look into the pot, out came the Sun. The child grasped at the Sun, attempting to put it back in the pot, but to no avail. The Sun promptly fled. The child began to cry because the Sun had been in his (the child's) care. The Sun started shining and went to the chief's residence where the beer-drink was still in progress. The grandson ran to the chief's home to tell his grandmother that the Sun had escaped from the pot. When the grandson arrived at the beer-drink, the chief said: 'Old woman, you it is who were in charge of the sun'. The chief then killed the grandmother. The Sun has continued to rise every day (Kidd, 1906).

Poems

The allocation of poems to a specific category in this volume was somewhat problematic at times (see also **Chapters 3–5**). Recourse was made in a number of cases to a 'best fit' scenario. The only criterion used in selecting the poems was the present author's impression of the work, in terms of the overall objectives of the book. The listing of poems is for general interest and is by no means comprehensive. The spelling of the names of the San informants, here and elsewhere in the book, is according to the given source. There is some overlap in terms of the San poems.

- At the Dawn I Saw Africa (John Matshikiza, 1954–2008). See: Butler and Opland (1989).
- Hymn to Tsui-Xgoa (Khoikhoi traditional verse translated/reworked by Theophilus Hahn). See: Cope and Krige (1968).
- New Life/Light (Mazisi Raymond Kunene, 1930–2006). See: Kunene (1982). The poems in the anthology were translated from Zulu into English.
- Oggendstond op 'n Boereplaas ('Totius' = Jacob Daniël du Toit, 1877–1953). See: Pienaar (1929).
- On Light (Mazisi Raymond Kunene). See: Kunene (1982).
- Sunrise: The Valley of a Thousand Hills (Ethel Margaret Campbell, 1886–1954). See: Slater (1946).
- The Armpit of the Sun (San traditional verse by //Kabbo: reworked by James). See: James (2001).
- The Cattle-killing (James James Ranisi Jolobe, 1902–1976). See: Butler and Opland (1989). Translated from the Xhosa *Ingqawule* by Wandile Francis Kuse.
- The Dawning of the First Day (San traditional verse by //Kabbo: reworked by James). See: James (2001).
- The Morning Sun is Shining (Olive Schreiner, 1855–1920). See: Lockett (1990).
- The Sleeping Sun's Armpit (San traditional verse by //Kabbo: reworked by Krog). See: Krog (2004).
- The Song of the Sun (Mazisi Raymond Kunene). See: Kunene (1982).
- The Sun Cuts at the Moon (San traditional verse by //Kabbo: reworked by James). See: James (2001).
- To Respect the Game (San traditional verse by Dia!kwain: reworked by James). See: James (2001).
- To the Sun (Herbert Isaac Ernest Dhlomo, 1903–1956). See: Visser and Couzens (1985).
- 'Vuka!' (Francis Carey Slater, 1876–1958). See: Slater (1946). The title of this Xhosa morning song is translated as 'Wake!'

Note that there is some reference to the Sun, the Moon and the stars in Tšiu (2008). The two volumes deal with more recent Basotho oral poetry in a Sesotho/English format.

The material, which includes lengthy praise poems, is not reproduced here. Likewise of interest is Mncube (2006) who examined symbolism, amongst other things for the Sun and the Moon, in selected South African poetry. An overview of nature topics, also involving the Sun, in certain Zulu poetry is given in Gcumisa (2003).

Music and the heavens

An interesting avenue for further investigation would be to determine whether indigenous instrumental music, both traditional and more modern, can be linked to the heavenly bodies *per se*. Excluded in this context is vocal music (chants and general songs) as well as animal horns blown at the sighting of certain stars. Three useful publications on traditional South African music include Kirby (1936; 1966) and Levine (2005). Some songs associated with the celestial bodies are discussed below.

One example of a traditional lullaby which has relevance to the heavens is that of *Antuntulele* (Kruger and Pooe, 2010). The words of this Tswana song are as follows:

Hush little one, sleep.
Hush little one, sleep.
Hush little one, please sleep!
Why are you not asleep like other children?
The sun has set, the stars have shut their eyes.
The moon is beautifully bright.
Where have the mothers gone?
They have gone to the fields, sleep.

The song in the first instance describes the 'loving struggle' of someone, usually the mother, who is attempting to soothe the baby to sleep. The song, further, contrasts day and night as well as work and sleep. Reference to the Moon and the stars indicates that it is night-time and the time to sleep. The baby is very young and also needs to sleep during the day when her mother works in the fields. The oldest female child, a relative or female friend looks after the baby at that time of day. A second layer of meaning in the song, as per Kruger and Pooe (2010), is (a) that women are the primary agricultural cultivators, and (b) that raising a child is usually a communal responsibility. A third embedded layer of meaning is that the song indicates a link between the people and their natural environment. Use is made of personification where human characteristics are ascribed to natural objects. The person lulling the baby to sleep appears to suggest that the baby should close her eyes, not only because it is night, but also because the stars have gone to sleep (line 5). Kruger and Pooe (2010) state that personification of the stars reveals the deepest layer of meaning in the song, i.e. that which implies the presence of a basic cosmology. Mention of the Sun, the Moon and the stars in the song is strongly suggestive of a spiritual world which is interdependent with, and which influences the physical world. The song, in essence, is a simple lullaby at first appearance, but one which also refers to the role of women as caregivers and agriculturalists. The song, in addition, relates to some aspects of cosmology.

Breutz (1969) observed that the Bamangwato or Ngwato, a Tswana people, have a song about the stars sung by a girl and a male chorus. It is probable that Breutz was referring

in this instance to an initiation song. One account of an early Tswana initiation ceremony is discussed in **Chapter 3**, as per Willoughby (1909). It is sufficient here to record the words of a special song as given by Willoughby, and which Breutz (1969) was evidently describing. The title of the song, being translated, is: Songs of the Leisure of the Returners, the Clean Ones.

Oh! Oh! Star
Traveller! Thou who sinkest below
the western horizon! [**One girl**]

I say, Oh! Do you not see the road?
Traveller! Thou who sinkest below
the western horizon! [**Men, all**]

Those who travel are thine,
Thou traveller! Thou who sinkest below
the western horizon! [**One girl**]

I say, this I say, the milky way
Don't you see it, oh!
Thou traveller! Thou who disappearest
below the western horizon! [**Men, all**]

Oh, dost thou not hear the child who
is instructed!
Thou traveller! Thou who disappearest
below the western horizon! [**One girl**].

Southern Sotho initiation candidates likewise have a praise song about the stars (Breutz, 1969). There was also a Tswana hymn to the morning Sun, which Breutz (1969) believed may have been introduced into northern Botswana from the Rotse of Zambia. The Rotse had the custom of placing a bowl of water on a wooden stand at sunrise, and praying to their god Nyambe, while facing east. The words of the Tswana prayer were as follows: 'O God, come with the roseate hues of the dawn and with the day or sun' (Breutz, 1969). The Kgaga, a Northern Sotho people, had specific songs dedicated to celestial objects, which were sung by initiates in the initiation lodges (Hammond-Tooke, 1981). The initiates were awakened at midnight to sing to the stars (*go fêtola molalatladi*) i.e. 'to turn over the rainbow'. The initiates were also required to wake up 'at the turn of the Milky Way'. At dawn, the initiates sang a song of praise to the rising Sun (*go hlabiša letšatši*) meaning 'to make the sun rise'. The setting Sun was praised in song in the afternoon (*go dikêdiša letšatši*).

Ntšihlele (2003) discussed several traditional games or play-songs (*lipapali*) which are enacted by the children of Lesotho. One *papali* or play-song is entitled: *Letsatsi* (= The Sun). The play-song praises the Sun, which is personified. The Sun provides energy for plant growth and warmth, and is also an important means of keeping track of time. The children stand on the threshold of their home on a cold winter's day beckoning the Sun

to come nearer, so that they can enjoy its warmth and dance and chant when they see it. A variant of the play-song is sung in very hot conditions, when the Sun is rejected by the children who then seek shade. A second play-song is that of *Khoeli* (= The Moon). The words are somewhat derogatory since the Moon is not full, and the children cannot dance and play outside. The Moon is compared to a dog, an animal which is regarded with contempt in Lesotho. A third play-song *'Runyana* (= The Little Cloud) has relevance to the Sun. The clouds shield the children from the scorching rays of the Sun in summer, although blocking out the warming rays of the Sun in winter (the clouds are thus good and bad). The clouds also bring rain which drives the children indoors. Rain is needed to make plants grow. Too much rain, however, causes havoc. The clouds can be as problematic as the Moon which is not full. The unpleasant dog analogy is again invoked in this play-song. The children chant the song if dark clouds are seen while they are playing outside, in order to banish the clouds (i.e. to keep the rain away). Both the Moon and the clouds have no 'mercy', given that their actions cannot be controlled to the complete benefit of the children.

Possibly in the same play-song category are two Xhosa games. A field game played by Xhosa boys is known as *iKhwezi lesibini*. The term refers to Venus as the Morning Star (T.E. Matomela). Another celestial game is, or was that of *inyanga nelanga* ('The moon and the sun') which was played by Xhosa children, and is analogous to the game known in Scotland as 'Here's the robbers passing by' or 'Broken bridges falling down' (Kropf and Godfrey, 1915). Kropf and Godfrey also record that Xhosa children sang a simple song to the Sun, urging the Sun to 'come forth'.

The Ronga in the vicinity of Maputo in southern Mozambique had a very old song about climbing to heaven (Werner, 1933) (**see Chapter 5**). Werner gives one version of the song:

Oh, how hard it is to find a cord!
How I would love to plait a cord and go up to the sky! I would find rest!

The Zulu, amongst others, likewise had a belief in a ladder, rope or cord leading up into the sky.

Brief mention is made of some celestial topics in Venda initiation rites. The first phase of these rites was *vhusha*, followed by *tshikanda* (an intermediate phase), and finally *domba* (the most important of all) (Blacking, 1998). It should be explained that girls underwent a cycle of initiation which could last from 1 to 4 years, for any girl who attended the rites. Blacking states that there were once initiation schools for youths, corresponding to the *vhusha* and *tshikanda* of the girls, although by 1956 such schools had been superseded by mission and state school education, and by the 'imported circumcision school' known as *murundu*. *Domba* at that stage was still 'officially' a school for youths and girls. Few youths took part, since they were working in the urban areas or on farms, or were attending the said schools. Blacking (1998) observed that *vhusha*, *tshikanda* and *domba* constituted a single dance-music-drama continuum, which was shared and performed by all Venda resident in a particular area, and which was not the sole preserve of 'an artistic elite'.

The initiation cycle was a system of formal education designed to build on the informal learning of childhood. The objective of the cycle was to symbolically bring about a transformation of the physical bodies of the young girls into the social body of the adult community. The most important lesson of *domba*, and the other initiation schools, involved the instruction of girls (and earlier the youths) for the institutions and responsibilities of motherhood, fatherhood and marriage. Blacking indicated that the initiation cycle from first to last, was a progression reflecting the advancing sexual knowledge and maturity of the girls. The end of the cycle was ultimately reached, where the people of the district participated in the symbolic rebirth of themselves as a cohesive community, via the rebirth as it were, of the novices. The girls, at the conclusion of *domba*, were ready for marriage and childbirth.

Blacking (1998) described the *milayo* (laws, instructions or imparted wisdom) of childbirth, of specific rituals, marriage and motherhood, which were taught throughout the initiations. Some *milayo* were first heard at *vhusha* and/or *tshikanda* and were then repeated in *domba*, as a form of revision. In certain *milayo* laws, the natural features of the landscape were renamed as parts of the human body (which was 'animated' by the dancing, drumming and singing). One of the core elements of the initiation cycle was a series of 'spoken pairs of concepts', which were presented by the initiation master. These related symbolic movements, song texts and rites to the difficulties of adulthood and married life. Familiar objects such as houses, paths, sunrise and fire were reinterpreted in a new manner, by linking them to the objects and concerns of womanhood. The symbolic relationships expressed with the physical environment were not only concerned with the fertility of the Earth and of women, but also with the role of the ancestral spirits as the source of life and as guardians of the countryside.

Some celestial examples of *milayo* include the following. The symbolic equivalent or explanation is provided to the right of the equation. The numbers ascribed by Blacking are given below:

Moon

- (127) *The fire outside there [by the river] = The moon in the river*.

Milky Way

- (93) *The rack near the courtyard [lit. below] = The Milky Way* {mulala-vhungu};

- (94) *The rack near the chief's place [lit. above] = A rainbow, which is the staff of Vho-Luvhimbi*. Blacking, with reference to Nos. 93 and 94, commented that each novice must hang from the racks like a bat (a rite of *domba*). Blacking noted further that the Milky Way and the rainbow 'are compared to the male and female principles', although there was a degree of confusion amongst the masters of initiation. Some masters maintained that the Milky Way represented 'the softness of the female and the rainbow the erection of the male'. Other masters, in turn, believed that the whiteness of the Milky Way was male and that the colours, especially red, of a rainbow represented the female.

Sun

- (241) *The feather [stuck into the novices' hair: it should be an ostrich feather] = Musisida, the big bird of Lombe: that is, your shadow: I went to the south and I returned with it*.

Blacking (1998) discussed one of the *vhusha* songs, which he termed Vhusha Song No. 11. Blacking states that he had always heard the song sung as *thavha i ya ya*, and that the song was sometimes referred to as *thavha i ya wa* or 'the redness is falling'. The girls hold their hands above their heads and clap in time to the song. The words are as follows:

Ah! The redness is going.
Nyamarivhula is going.
The redness has gone away,
Nyamarivhula.
Chorus: *Ah! The redness is going.*

The redness of the sky before dawn is compared to the redness of menstrual blood, which according to Blacking 'may be referred to by the word *thavha*'. The song is only sung on the first and last morning of *vhusha*, when the old ladies are present. The *milayo* in this instance is No. 257. Blacking (1998) explains matters thus: 'Now when we go back from the place of the burning: we go back with *thavha*. When we say, "The redness is falling": this means that if a girl has seen her monthlies, she wants to fix herself up nicely: she wants to look as if she has seen no such thing'. The inference (instruction) here is to use appropriate clothing to hide any evidence of menstruation.

Lines 345–347 of the Great Domba Song (sung as the name suggests at *domba*) are also of interest:

The sun is hot in the country of the Niya;
In the country of the Karanga you can roast meat in the sun;
And at Malungudzi you can even cook with your pots (in the sun).

Blacking (1998) explained that these lines refer to 'the increasing heat as you journey north of Vendaland, from the well-watered mountains to the dry savannah country'. Further: 'The people of Luvhimbi came from Malungudzi hill in Zimbabwe. One [initiation] master said that near Malungudzi are rocks with the marks of human footprints and animal tracks: these are said to have originated in the days when rocks were softer'.

A Venda composer of choral music, Derrick Victor Nephawe (1930–) was inspired by the Apollo 11 mission to the Moon and the first landing on that body on the 20th of July 1969 (Mugovhani, 2007). Nephawe composed a song entitled: *Tshiendedzi tsha Apollo* (= The Apollo). The Transvaal United African Teachers' Association prescribed the work in 1980 for junior secondary schools *inter alia* for a series of national choir competitions.

South African place names and the Sun

The listing is not comprehensive. A specific examination of South African vernacular place names may yield further examples of place names linked to the Sun as well as to the Moon and the stars.

- **Aurora (a settlement north west of Fouriesburg: Free State) ± *28º35'S 28º05'E***
  This locality was probably named after Aurora, the Roman goddess of dawn.

- **Aurora (a hill north west of Bloemfontein: Free State) *28º50'S 25º52'E***

- **Aurora (a settlement north east of Saldanha: Western Cape) *32º42'S 18º29'E***

- **Aurora Peak (2 548 m high in the southern Drakensberg, some 30 km north west of Maclear: Eastern Cape) *30º53'S 28º05'E***
  One reason for the name is that the site is one of the first peaks in the specific locality to catch the rays of the early morning Sun (Raper, 2004).

- **Blinkwater (a settlement and river at the junction of the Blinkwater and Kat rivers, to the north west of Fort Beaufort: Eastern Cape) *32º42'S 26º35'E***
  The Afrikaans name for the river ('shining water') has been translated from the Khoikhoi word *cocaese* meaning 'radiant', 'shining' or 'gleaming'. The Xhosa name of the river, *eGqusesi*, is an adaptation of the Khoikhoi name. The river name refers to a nearby hill where a rocky outcrop reflects sunlight after rain (Raper, 2004).

- **Bochabela (a suburb of Bloemfontein: Free State) *29º08'S 26º14'E***
  This Southern Sotho name means 'where the sun rises' (Pitso, 2009).

- **Clock Peaks (a series of peaks in the Langeberg near Swellendam: Western Cape) *33º57'S 20º23'E***
  Time can be estimated by the way shadows fall from the peaks, hence the name (Raper, 2004). The relevant peaks are known respectively (from east to west) as: Seven o'clock; Eight o'clock; Nine o'clock; Ten o'clock; Eleven o'clock; Twelve o'clock, and One o'clock (Reader's Digest Association, 1980).

- **Daeraad (a railway siding 6 km south of Vaalwater on the route to Nylstroom, with the latter now being known as Modimolle: Limpopo) *24º20'S 28º07'E***
  This Afrikaans name means 'dawn' or 'daybreak' (Raper, 2004).

- **Dagbreek (a locality 20 km east of Upington: Northern Cape) *28º26'S 21º26'E***
  The name is Afrikaans for 'daybreak' (Raper, 2004).

- **Elangeni (a township near Hammarsdale: KwaZulu-Natal) *29º48'S 30º39'E***
  The name in Zulu means 'at (or) in the sun' (Raper, 2004).

- **Horees River (a non-perennial stream which flows in a south westerly direction to join the Spoeg River at Wallekraal: Northern Cape) *30º23'S 17º30'E***
  One version is that this Khoikhoi name is linked to the word *!hore*, or 'mirage' (Raper, 2004).

- **Horlosiekop (a hill east north east of Clanwilliam: Western Cape) *32º08'S 19º04'E***
  The Afrikaans name means 'clock hill' and refers to the local farmers using the hill to tell the time by means of the shadow. Another hill near Worcester, the *Horlogieberg* or 'clock mountain' in Dutch was used in the same manner (Raper, 2004).

- **Ifafa River (at the town of Ifafa Beach: KwaZulu-Natal)** ***30º27'S 30º39'E***
  One version is that the Zulu word *iFafa* or 'sparkling' applies to the light glittering on the surface of the river (Reader's Digest Association, 1980).

- **Keisie River (environs of Montagu: Western Cape)** ***33º47'S 20º06'E***
  This Khoikhoi name refers to 'shimmering water' (Lloyd, 2006).

- **Koumoesgnaab se Berg (east north east of Springbok: Northern Cape)** ***29º33'S 18º14'E***
  The Khoikhoi name of the mountain means 'morning shade or shadow' (Raper, 2004).

- **Mbawelanga (a peak in the mountains near Tsolo: Eastern Cape)** ***31º19'S 28º45'E***
  The Xhosa name means 'path of the sun', since the first rays of the rising Sun fall on this peak (Raper, 2004).

- **Mirage (a settlement north east of Bothaville: Free State)** ***27º15'S 26º41'E***

- **Montusi Mountain (near the Amphitheatre in the Drakensberg: KwaZulu-Natal)** ***28º46'S 28º54'E***
  The name of the mountain is thought to be an anglicized version of the Zulu word *mthunzi* meaning 'in the shadow'. The name is appropriate since Montusi lies in the shadow of the Amphitheatre (A. Carte).

- **Mpumalanga (a township near Hammarsdale: KwaZulu-Natal)** ***29º49'S 30º37'E***
  This Zulu name refers to 'the east' (i.e. where the Sun rises) (Koopman, 2002).

- **Ntabelanga (a 1 084 m high mountain north north west of Tsolo: Eastern Cape)** ***31º08'S 28º40'E***
  The Xhosa name means 'mountain of the sun' (Raper, 2004). The name may possibly refer to the rays of the rising or setting Sun on the mountain.

- **Ntsoanasatsi or Ntsoanatsatsi/Ntsuanatsatsi Hill (the 1 806 m high Tafelkop, which is situated to the south west of Cornelia: Free State)** ***27º20'S 29º50'E***
  This Sotho name means 'sunrise' or 'the rising sun', and is said to be the birth place of the Southern Sotho (Hammond-Tooke, 1993; Raper, 2004).

- **Ntswanatsatsi (a township just outside Vrede: Free State)** ***27º25'S 29º10'E***
  This Sotho name means 'where the sun rises' (Raper, 2004).

- **Saddle or Segwana Cirque (a 2 972 m high peak west of Cathedral Peak in the Drakensberg: KwaZulu-Natal)** ***28º55'S 29º04'E***
  The Zulu name for the peak is *Ntaba Busuku* meaning 'the mountain of the night'. Night, according to the Zulu, clings to the face of the mountain. The southern buttress shelters the peak in the morning, with the northern buttress doing the same in the afternoon. Long shadows are thus cast across the face of the peak (Pearse, 1973).

- **Simonsberg (a 1 399 m high mountain in the vicinity of Stellenbosch: Western Cape) *33º53'S 18º26'E***
  Simonsberg, when seen from Cape Town across the Cape Flats, is the mountain which catches the last rays of the setting Sun. The well-known Governor of the Cape, Simon van der Stel, was much taken by this lovely sight, hence the name of the mountain (Bulpin, 1978).

- **Sononderberg (a hill some distance west of Steinkopf and south south east of Lekkersing: Northern Cape) *29º21'S 17º11'E***
  The Afrikaans name means 'sunset or sundown mountain', which probably describes the last rays of the setting Sun on the hill (Raper, 2004).

- **The Ghio (salt marshes on the east bank of the Bushmans River, east of Alexandria: Eastern Cape) *33º38'S 26º35'E***
  The Khoikhoi name has been explained as 'shining water', from the word *caeco*, which in turn means 'shining' or 'glistening'. An alternative derivation of no relevance here has also been advanced (Raper, 2004).

- **The Great Kei (Nciba) River [*32º41'S 28º22'E*]; the White Kei (Xonxa) River [*31º50'S 27º13'E*]; the Black Kei (Nciba) River [*32º31'S 28º10'E*], and the Keiskamma (iXesi) River [*33º17'S 27º29'E*] all in the Eastern Cape**
  One version is that the word *kei* is a Khoikhoi word which may mean 'sand', or possibly the 'shine' that is reflected from the stones and sand of the riverbed (Automobile Association of South Africa, 1987). A related interpretation, in respect of the Keiskamma River, is that the name refers to the 'shining water or river' (Bulpin, 1980). Other interpretations of the latter name have been put forward (Raper, 2004).

- **The Sundial (a 1 087 m high peak above the Blydepoort [Swadini] Dam: Mpumalanga) *24º27'S 29º30'E***
  The peak is also known as *Thabaneng* meaning 'the mountain with a shadow that moves' (Automobile Association of South Africa, 1987).

- **Tshirunzini (a settlement in the environs of the Tshirunzin hills, south east of Tshipise: Limpopo) *22º39'S 30º32'E***
  The Venda name means 'the place of shadow' (P.A. Jones).

- **Verneukpan (south of Kenhardt: Northern Cape) *30º00'S 21º05'E***
  The Afrikaans name means 'cheat or deceive pan', or 'depression of deception'. The name refers to the deceptive mirages which are common on the pan; or to the false impression of a deep lake when rain has filled the shallow pan with water (Raper, 2004).

CHAPTER 3

The Moon

The lunar cycle

The Moon, like the stars, was an indicator of various events or practices amongst Africans in olden times. The lunar or synodic month is the interval between two new moons, and lasts for an average of 29 days, 12 hours, 44 minutes and 2.8 seconds (termed the mean lunar month); or 29.5306 mean (average) solar days. The duration of the lunar month is slightly variable on either side of the mean, and follows a cyclical pattern. This is mainly due to the fact that the Moon's orbit around the Earth is slightly elliptical rather than circular, and that the Earth's orbit around the Sun is likewise slightly elliptical. The same side of the Moon is always seen from Earth. The Moon is waxing (visibly growing bigger) in the period between New Moon and Full Moon, and waning (becoming smaller) in the second half of the cycle. A waxing Moon is one which is lit from the left by the Sun, while a waning Moon is lit from the right. The Moon rises and sets an average of 50 minutes and 30 seconds later each day. Four terms are used to describe the extent to which the Sun illuminates the side of the Moon facing Earth, namely: a *crescent Moon* (less than half-illuminated), a *quarter Moon* (half-illuminated), a *gibbous Moon* (more than half-illuminated), and a *Full Moon* (fully-illuminated). The line separating the light and dark parts of the Moon is known as the terminator. There are two quarter Moon phases: the first quarter when the Moon is waxing, and the last (or third) quarter when the Moon is waning. The various phases of the Moon, correct to the nearest day, are given below. The terms 'west' and 'east' relate to the Moon as seen from Earth. An easy method of determining whether the Moon is waxing or waning is to examine the crescent in relation to the dark part of the Moon. The two crescent moons shown are for general illustrative purposes only. The data refer to the southern hemisphere, in terms of the visible parts of the waxing and waning Moon. The Moon, in the southern hemisphere, is seen to *grow* from the left and *wane* towards the right. The reverse situation applies in the northern hemisphere. Some school atlases published in South Africa, however, persist in showing the phases of the Moon as seen in the northern hemisphere. The reader should imagine a long rectangular table with two people, Brian and John, sitting opposite each other. A line drawn lengthways through the table represents the equator. Brian is looking at a book with an attractive cover. John on the other side of the table, views the cover from a different perspective in comparison with Brian.

New Moon = 0 days of age

The New Moon rises and sets with the Sun and is only visible during a solar eclipse. A thin crescent rises shortly after sunrise, a day or two after New Moon. The crescent Moon closely follows the Sun towards the west. The time interval between astronomical New Moon and the first sighting of the crescent Moon in the early evening, low down on the

western horizon, can vary by at least 24 hours. This is due to astronomical New Moon occurring at any time of the day, and perhaps also as a result of cloudy conditions.

Waxing crescent ☾ (the first illuminated section is visible on the western side of the Moon). This Moon rises after sunrise, sets before midnight, and is seen in the west following sunset.

First quarter = 7 days of age
The waxing quarter Moon rises at about the time that the Sun is at its highest elevation (noon). The Moon reaches its own highest point in the heavens at around sunset, and sets at about midnight. The western half of the Moon is visible.

Gibbous Moon: waxing (the visible area of the Moon increases). This Moon rises after noon, sets before dawn, and is highest in the sky in the late evening.

Full Moon = 15 days of age
The Full Moon is opposite the Sun, reaching its highest point at around midnight, and setting in the west as the Sun rises in the east the next morning. The Full Moon rises in the east at about the same time that the Sun sets in the west. The Full Moon is accordingly visible throughout the night. A lunar eclipse can occur at Full Moon in certain circumstances.

Gibbous Moon: waning (the visible area of the Moon decreases). This Moon rises after sunset, sets after dawn, and is highest in the sky after midnight.

Last (or third) quarter = 22 days of age
The waning quarter Moon rises at about midnight, reaches its highest point in the sky at around sunrise, and sets in the west at around noon. The eastern half of the Moon is visible. The illuminated section of the Moon then shrinks in size to a progressively smaller crescent every day, before disappearing entirely at the time of New Moon.

Waning crescent ☽ (the final illuminated section is visible on the eastern side of the Moon). This Moon rises well after midnight, sets after noon, and is seen in the east before sunrise.

New Moon = 30 days of age
The lunar cycle begins once more.

Since the synodic month is shorter than a calendar month, with the exception of February, it follows that New Moon does not necessarily always occur on the 1st of the month, or that Full Moon is at mid-month. It is likewise possible to have two full moons in one calendar month (always excluding the shorter month of February). This double Full Moon phenomenon occurs seven times in 19 years, or on average once every 2½–3 years, but only in a calendar year with 13 full moons. A 13 Full Moon-calendar year occurs when the first Full Moon of the year is evident on/before the 11th of January, or on/before the 12th of January in a leap year. If the first Full Moon of a calendar year appears after these two dates, then that year will have 12 full moons only. The second Full Moon in any month is popularly known as a 'blue moon' in western society, hence the saying 'only once in a blue moon', which refers to some rare occurrence. There are, however, other literary and lunar definitions of a blue Moon which are not discussed here. An example of a double

Full Moon was in August 2012, when there were two full moons (on the 2nd and the 31st). A truly rare event is when *two* double full moons are evident in one calendar year, which usually occurs four or five times in a hundred years. A calendar year with *two* double full moons is one in which the first double Full Moon event is always in January, with no Full Moon at all in February. The second double Full Moon event occurs in March (86% of the time); April (9%), or May (5% of the time) (Astronomy Net website, see: http://www.astronomy.net; Obliquity website, see: http://www.obliquity.com [both websites accessed on the 5th of August 2009]; Dennis, 1993).

A perennial problem (for 24 centuries) has involved the Moon illusion, for which no universally accepted explanation is yet available (Plug and Ross, 2003). Simply put, the Full Moon when just above the horizon often appears to be larger than when it is higher in the sky. The Moon illusion may also be evident when the Moon is less than full. A similar Sun illusion occurs for the rising or setting Sun and sometimes in respect of the celestial constellations, which appear enlarged near the horizon. The distances between pairs of stars close to the horizon, likewise, may seem to be bigger. The term 'celestial illusion' has been proposed for such instances. The Moon illusion was discussed in detail by Ross and Plug (2002). There is no mention of the Moon illusion in the southern African anthropological literature examined by the current author, however.

Linguistic terms describing the phases of the Moon

A 'traditional' month in South Africa began when the thin crescent Moon was first seen in the evening in the west, and extended until the last appearance of that particular Moon. The month included the two days during which the Moon could not be seen at all, i.e. neither the Old Moon nor the incoming New Moon (Sechefo, 1909).

- New Moon

Northern Sotho: *Lebalana* (Kriel and van Wyk, 1989). See: **Absent Moon or the end of the Moon** below. Ziervogel and Mokgokong (1975) give three further terms, namely: *kgwêdi e dutše* or *kgwêdi e rogilê* = 'new moon' and *kgwêdi e balame* = 'to be new moon';

Southern Sotho (Basotho): 'It is new moon' or *kgwedi e thwasitse* (Christeller, 1994);

Tswana: *kgwedi e e rogwang ke badimo* or *kgwedi e e rogwang* (Matumo, 1993);

Tsonga: *ximusi* (Publications Committee, Swiss Mission in South Africa, 1988);

Xhosa: *Ukutwasa kweNyanga* or *Inyanga entsha* (Soga, 1931); alternatively: *inyanga etwasileyo* = 'the appearing or commencing moon' (Bud-M'belle, 1903);

Zulu: *Inyanga ethwese* (Dent and Nyembezi, 1979). Another expression is: 'It is come into sight (the moon)' or *idandalazile (inyanga)*, a reference to the New Moon which is just appearing (Bryant, 1905);

Venda: *nwedzi wa Vhalemba* = the 'new moon still hardly visible'. The reference here is to the Lemba, as discussed later in the chapter. Another Venda term is *kangalakadzhiwe* = 'the new moon when visible for the first time'. The latter term can also be spelt as

kangalakaziwe or *kangalakedzi*. The New Moon in the first 3–4 days is known as *nwedzana* (van Warmelo, 1989). Stayt (1931) gives the meaning of *nwedzana* as 'little moon';

Khoikhoi (Nama in Namibia): *≠kxam//kxãb* [or perhaps *≠kxam //kxãb*] = 'the just emerging, hardly yet visible crescent' where *≠kxam* means 'unripe' in the same sense as a premature fruit. 'The slender, shining crescent' by which the Moon 'revives' itself is known as *!gãgo //kxãb* (Schultze, 1907 cited by Schapera, 1965).

- First quarter

Northern Sotho: *kgwedi e dutše* (Kriel, 1976). The Moon in this phase is said to 'file off its horns' or *e ritela dinaka* (Beyer, 1919);

Tsonga: *n'hweti yi tshamile* (Publications Committee, Swiss Mission in South Africa, 1988);

Xhosa: *Iceba lokuqala* (Soga, 1931); or *inyanga liceba* = 'the moon is a piece' (McLaren, 1936). The same terminology applies to the third quarter (McLaren, 1936);

Zulu: *Inyanga isilucezu* (Dent and Nyembezi, 1979);

Khoikhoi (Nama in Namibia): The first two quarters have two names common to both phases. These are *gai-//kxãgaira //kxãb*, namely: 'the moon which becomes great or old (*gai*)'; and *gaaira //kxãb* or 'the moon which becomes wise (*gãai*)' (Schultze, 1907 cited by Schapera, 1965).

- Full Moon

Northern Sotho: *kgwedi e gotše* (Kriel, 1976); or *ngwêdi o tlêtše* (Ziervogel and Mokgokong, 1975), or *kgwêdi yê e tlêtšego* (Kriel and van Wyk, 1989). It is said of the Full Moon that 'it has filed off its horns' = *e ritetshe dinaka* or *e tolokile* = 'it is rounded off' (Beyer, 1919);

Southern Sotho (Basotho): 'It is full moon' or *kgwedi e tolokile* (Christeller, 1994);

Tswana: *kgwedi e kgotsheng* (Matumo, 1993);

Tsonga: *n'hweti yi basile* (Publications Committee, Swiss Mission in South Africa, 1988);

Xhosa: *Inyanga ehlangeneyo* or *ezeleyo* (Soga, 1931); alternatively: *inyanga ehlangeneyo* or *ethwasileyo* (Fischer, 1985), or *inyanga ihlangene* as per Kropf and Godfrey (1915) and McLaren (1936) which being translated means 'the moon is joined or rounded' (McLaren, 1936). Another term is *inyanga sisonka* = 'the moon is a round loaf of bread' (McLaren, 1936);

Zulu: *Inyanga ehlangene* (Dent and Nyembezi, 1979).

- Last (or third) quarter

Northern Sotho: *ngwêdi o a hwa* (Ziervogel and Mokgokong, 1975). A relevant expression is that 'it [the Moon] salutes the sun' or *e dumedisha letjatji* (Beyer, 1919);

Tsonga: *n'hweti yi tsuvukile* = third quarter (Publications Committee, Swiss Mission in South Africa, 1988);

Xhosa: *Iceba lokugqibela* (Soga, 1931);

Zulu: *Inyanga isihlephukile* (Dent and Nyembezi, 1979);

Khoikhoi (Nama in Namibia): The slender crescent or 'the dying moon' is called *//õra //kxãb* (Schultze, 1907 cited by Schapera, 1965).

- Waning Moon

Northern Sotho: *ngwedi o jewa ke manyonyo* = 'the Moon has been eaten by the small black ants' (P.S. Groenewald);

Tswana: *kgwedi e a sêlwa* = 'to wane, of the Moon' (Matumo, 1993);

Xhosa: *Inyanga iyaselwa* or *eselwayo* (Soga, 1931); alternatively: *inyanga eqhekekileyo* (Fischer, 1985). Similarly: 'the moon overtaken by the morning' = *inyanga iselwe* or *eseyiselwe* also called *inyanga eqekekileyo* = 'the broken moon' (Bud-M'belle, 1903);

Zulu: *Inyanga isiyamuka* (Bryant, 1905).

- Absent Moon or the end of the Moon

Northern Sotho: *kgwedi e hwile* (Kriel, 1976). Kriel states that this phrase refers to the New Moon. P.S. Groenewald, in contrast, maintains that the meaning here is: 'The moon is dead';

Tsonga: *n'hweti yi file* = fourth quarter (Publications Committee, Swiss Mission in South Africa, 1988);

Tswana: *kgwedi e ile ditshweneng* = 'the Moon between old and new' (Matumo, 1993); alternatively: *kgwêdi ya ditshwêne* = the moonless night between the old and new moons, literally: 'Moon of the baboons' (D.T. Cole);

Xhosa: *Ukufa kweNyanga* = 'death of the moon' (Soga, 1931); alternatively: *inyanga efileyo* = 'the dead moon' (Fischer, 1985).

- Additional lunar terms

A crescent Moon: *inhlendla* (Zulu: Doke, Malcolm and Sikakana, 1958); *lexi nga ni xivumbeko xa n'hweti* (Tsonga: Publications Committee, Swiss Mission in South Africa, 1988); *inyanga eliceba* (Xhosa: Fischer, 1985); *kgwêdi* = crescent Moon in the first quarter (Tswana: Snyman, Shole and le Roux, 1990), and *kgwedi ge e dula* or *kgwedi ge e roga* = crescent Moon (Northern Sotho: Kriel and van Wyk, 1989).

Northern Sotho: **The Moon** itself is referred to as *kgwedi* or *ngwedi* (Beyer, 1919). **The Moon waxes**: *kgwedi e a balama* (Kriel, 1976). Ziervogel and Mokgokong (1975) give several related terms. These are: **Moon, moonlight or moonshine** = *ngwêdi*. [Kriel and van Wyk (1989) also give *ngwêdi* for **moonlight**.] **Moon rises** = *ngwêdi o a tšwa*; **Moon sets** = *ngwêdi o a phirima*; and **Bright moonlight** = *kgwêdi ya letôpanta*, where *topa* means 'pick up' and *nta* means 'lice' (Ziervogel and Mokgokong, 1975). An explanation

provided by P.S. Groenewald in the latter instance concerns the Northern Sotho belief that baboons will be able to find and remove lice from their bodies in bright moonlight.

Southern Sotho (Basotho): **Moonlight** = *ngwedi* (Christeller, 1994). A different orthography is given here as per Ambrose (2009). *Khoeli* = **the Moon**; *ngoeli* (from *khoeli*) = **moonlight**; *khoeli e shoele* = **New Moon** or 'the moon is dead'; *khoeli e tolokile* = **Full Moon**; *liphapano* = **the phases of the Moon** (from *fapana* or 'to be different'). Note that the word *toloka* can be used as a *hlonepho* substitute (a term of respect) for *khoeli* and *ngoeli* (Ambrose, 2009). The **New Moon**, when about to be visible, is said to be 'scorned by the monkeys' or *e tlakoa ke litsoene* (Thoahlane, 1985). The **Moon** is also said to 'receive the rain with both hands' (*ho khakeletsa pula*) in the same way that a young child is taught to accept a gift with both hands joined together, thereby indicating respect (Thoahlane, 1985). Linguistic terms for the two days when the **Moon** is no longer visible (before the New Moon is seen) were provided by Sechefo (1909). On the first such day the Moon was said to be *e ile mefela* (literally: 'is gone into the darks'). The Moon on the second day was *e tlakoa ke litsoene* (literally: 'is being greeted by the apes'). It was believed that although the latter Moon could not be seen by man, it was dimly visible to the apes (monkeys or perhaps baboons) when they were seated on the high mountain peaks. The apes thus saw and greeted the New Moon before the Basotho (Sechefo, 1909).

Tswana: **Moon**: *kgwedi* (Matumo, 1993) or *ngwêdi* (D.T. Cole); **moonlight**: *lesedi la ngwedi* (Matumo, 1993) or *ngwêdi* (D.T. Cole); **change of the Moon**: *thogô ya kgwedi* (Matumo, 1993); **to rise, of the Moon**: *kgwedi e a tswa* (Matumo, 1993) or *ngwêdi o a tlhaba* (D.T. Cole); **to set, of the Moon**: *kgwedi e a phirima* (Matumo, 1993) or *ngwêdi o a phirima* (D.T. Cole); **rise of the Full Moon**: *kgwedi e a tswa sehutuhutu* (Matumo, 1993); **the Full Moon at midnight, not in the east or west sky**: *kgwêdi e le tshwêu* (D.T. Cole); **the New Moon is visible low in the western sky**: *kgwêdi e bônêtswe* (D.T. Cole); **to keep sacred the day after a New Moon**: *ilêla kgwedi* (Matumo, 1993); **the poor people's lamp [i.e. the Moon]** *lobônê lwa bahumanêgi* (D.T. Cole), and **a halo round the Moon**: *kgwedi ya pitsô* (Matumo, 1993).

Tsonga: The Tsonga term for **moonlight** is *ku vonakala ka n'hweti*, while *n'weti* refers to **moonshine** (Publications Committee, Swiss Mission in South Africa, 1988). Junod (1927) provided a different version of the phases of the Moon. When the **first quarter** appears the Moon is said to *thwaza* (a Zulu word corresponding to the Tsonga *tjhama*). The **Full Moon** is stated to *basa* ('be white or brilliant'). The Full Moon is also said to *sima* or to *lata batjongwana* ('to put the little children to bed, because when it rises, it finds them already sleeping on their mats'). **The wane of the Moon** is referred to as *ku shwela dambo*, when the Moon is 'found by the rising sun to be still in the sky, not having yet dipped below the horizon'. The term *shwela* applied to the **last quarter** means 'to be surprised in the morning'. Once the Moon 'disappears' (is no longer visible) it is then *munyama*, literally: 'the obscurity'. The Moon in this phase is said to *fa* or 'to have died'.

Swazi: The Swazi word for **the Moon** is *inyanga* (Rycroft, 1981).

Zulu: The Zulu term for **moonlight** is *unyezi* (Dent and Nyembezi, 1979).

Northern Ndebele: The term used for **the Moon** is *nyeti* (Skhosana, 2009).

Southern Ndebele: The name of **the Moon** is *inyanga* (Skhosana, 2009) or *inyezi* (A. Wilkes citing the Southern Ndebele Spelling Rules of 2000). Both of these terms are officially accepted. The officially accepted term for **moonlight** is *umkhanyo wenyanga* or *umkhanyo wenyezi* (A. Wilkes citing the Southern Ndebele Spelling Rules of 2000). Fourie (1921) referred to the Ndzundza Ndebele word *thwasa* which is *inter alia* applicable to the lunar cycle. The word means 'before the first appearance' and relates in this instance to the **New Moon**. See the Zulu term for the New Moon, as per Dent and Nyembezi (1979), allowing for a difference in spelling.

Venda: **The Moon at the time before New Moon when it passes from the eastern to the western horizon**: *phinda* or *phindane*; **the Moon on the day before New Moon**: *mufuna-mupenyu*; **the Moon on the first two nights after Full Moon**: *ndzedzana*, and **the Moon when seen at midday**: *tshitoko*. The term *lutshenzhe* means: 'It is 1–3 days after new moon'. **The Moon** (*nwedzi*) was often called *makhadzi*. The latter word means a paternal aunt, i.e. the father's sister or half-sister, or another specific relative, or a rising Moon which was pointed out by the parents to their small children. The children then knew what the Moon was (van Warmelo, 1989).

Perceptions of the Moon

The San

The San made use of the Moon to determine shorter passages of time, but without calculating how many moons there were in a 'season' or 'year' (Schapera, 1965). The San, nevertheless, closely observed the phases of the Moon. There was no division of time into discrete concepts such as a week. The latter notion was readily grasped when the San worked for white farmers and households, with the San regularly appearing on the seventh day to receive their highly-prized tobacco and other commodities. Those employed by the whites on a monthly basis demanded their wages at the New Moon (Schapera, 1965).

The Moon, according to the /Xam, was one of the 'things' that /Kaggen (the Mantis) made (Hollmann, 2007). The Moon was a 'sentient being' with some of the powers of /Kaggen, and had a direct influence on the good fortune of the /Xam, particularly in terms of hunting. There were two /Xam versions of the creation of the Moon. One version is that /Kaggen threw his leather shoe into the sky, commanding it to become the Moon and shine to give light. The Moon is red in colour because the shoe was covered in red dust. The Moon is also cold, since it is 'darkness's thing'. A second version is that /Kaggen threw a [male] ostrich feather into the sky, and instructed the feather to become the Moon. The Moon can talk although in a strange manner, since it is one of /Kaggen's 'things', all of which are 'clever' and have the power of speech (Hollmann, 2007). Examples of speech by various animals and the Moon are given in Bleek (1936). Watts (2005), in a slightly different interpretation, states that another reason for the red-coloured Moon is that 'cold' things are red. Redness and brilliance were associated *inter alia* with supernatural potency by the San (Watts, 2005). Bleek (1929) maintains that the Moon is as cold as the leather from which /Kaggen's shoe was made. Hewitt (2008) indicates that /Kaggen made the Moon, but only after an upsetting incident. /Kaggen saw the gall of an eland which he had made hanging on a bush. The eland was killed by /Kwammang-a (note spelling). /Kaggen pierced the gall of the animal causing darkness which blotted out the Sun. /Kaggen created

the Moon on his way home in order to see where he was going. The /Xam derived many benefits from the light of the Moon including the ability to hunt porcupines and other nocturnal animals (Hewitt, 2008). The light of the Moon extended the time during which the /Xam could hunt, with a Full Moon providing an especially good light (James, 2001). Some writers on the /Xam maintain that the Moon thrown into the sky was a New Moon, with others believing that this Moon was a Full Moon. Hewitt (2008) was of the opinion that /Kaggen created the New Moon which is arc-shaped like a 'curling veld-shoe' or a feather. The red dust refers to the common red sands of the Kalahari and southern environs.

The Moon was once a person who lived on Earth at the time of the Early Race (Wessels, 2008). The Moon runs along a path in the sky, and shrinks in size as the Sun progressively cuts off pieces of the Moon by means of a knife (the rays of the Sun) (Hollmann, 2007). This description refers to the Full Moon as it starts to wane. The process continues until finally all that remains of the Moon is his backbone. The Moon begs the Sun to spare his life for the sake of his children, with the Sun agreeing as a temporary act of kindness. The Moon then renews itself. The Moon, when young and hollow (i.e. waxing), is burdened by the dead which the Moon carries in its hollow. The Moon, thereafter, grows a large stomach and returns to his original size. The foregoing is a short description of the waxing and waning of the Moon, but explained in the /Xam adversarial manner of Sun versus Moon. The Moon and the male ostrich, which can be resurrected from a single feather blown by the wind into water, are the only two entities which die and return to life. The Moon was the symbol of renewal for the /Xam (Hollmann, 2007). There are three /Xam narratives concerning the waxing and waning of the Moon (Hewitt, 2008).

One detail supplied by Bleek (1929) is that the Moon after begging to be spared, crawls back home. The Moon keeps out of the Sun's sight and walks only by night until he regains his strength and grows fat. He proudly runs before the Sun and is again cut (Bleek, 1929). The Moon only survives as a rotten piece of meat which clings to its backbone (Wessels, 2008). The Moon at this stage still emits some light, with the permission of the Sun, and for the sake of its children. This light indicates that the Moon will return to full life. The Moon rejuvenates itself because it was ordered to do so by /Kaggen. The New Moon is a wounded individual with an empty carrying net (discussed below) (Wessels, 2008). The hollow or cavity of the New Moon was the 'catching place' for the corpses of the recently deceased (Hewitt, 2008). As the Moon grows in size due to the increasing number of deceased, so the dead are revived by 'moon-water'. When there is insufficient room, the deceased are tipped out onto the ground, there to live before dying again, with the whole cycle repeating itself (Hewitt, 2008). [It is unclear whether the same unfortunates are endlessly recycled, or whether 'new recruits' are constantly required.] The Moon, as per Wessels (2008), was thought of as a family person who directly intervenes in the affairs of the /Xam. This is in contrast to the Sun who lives a solitary existence on Earth and once more in the sky. The Sun does not want company in the sky and behaves much like a single animal which is jealous of its own territory. The Sun is also angry at the ability of the Moon to regenerate itself, to look like the Sun at Full Moon, and to give out light even when in a 'putrid' (waning) state. The Sun, due to his anger, attacks the Moon although the Sun takes pity on the Moon at one time, as already indicated. The Full Moon, being attacked, is red in colour which signifies blood. The Moon brings light and denotes

regeneration, but is also responsible for death as explained in the story of the Moon and the Hare. The Moon is accordingly associated with death in two forms (see immediately above and later below). The Moon is only saved from death (its own special 'invention') by the brief generosity of the Sun (Wessels, 2008). Another concept is that the Full Moon was occasionally perceived to be the 'wife to the waxing Moon', which is ambiguous (Watts, 2005). This ambiguity concerns the gender of the Moon. The Full Moon is sometimes referred to as a female who has children to care for (Wessels, 2008). A Full Moon was regarded as 'fatness personified' since this Moon has 'put on a big stomach' (Watts, 2005); a condition which relates to femaleness (Wessels, 2008). The Moon only becomes a man because of the Sun's attacks. The Moon thus changes from mother to husband and father, and at that moment is supplied with a wife (Wessels, 2008). The core concept in this case is that the Moon is male or female depending on its appearance and size (i.e. phase). It was the Sun whose actions resulted in what we know today to be the phases of the Moon. Most writers on the /Xam refer to the Moon as masculine.

Watts (2005) recounted von Wielligh's version of the creation of the Moon (Deel I: 1921). /Kaggen made a pair of shoes for himself, although the right shoe chafed (pinched) his foot. /Kaggen instructed his daughter the Hamerkop (*Scopus umbretta*) to soften the shoe by throwing the shoe into a waterhole. The shoe may have become bloody due to the chafing. (This description is in accordance with the redness of the shoe as indicated in other /Xam sources.) The Hamerkop was required to inform the bottom-dwelling Watersnake whenever young maidens contaminated the waterhole with ash. The sensitive Watersnake became very angry at the shoe which polluted the water, and made the water freeze overnight. The shoe, duly retrieved by the Hamerkop, was enclosed in ice. An angry /Kaggen, in turn, threw the shoe and the ice into the air. The Hamerkop asked the Windbird (in the form of a whirlwind) to take the shoe high up into the sky so that there could be light at night. The 'ancestors' covered their faces with their hands when they first saw the Moon. They also praised the Moon. The people had light at night and could then hunt porcupines and lie in wait for game at waterholes. The Sun was jealous of the Moon and fired arrows which melted the ice, leaving only /Kaggen's shoe. The people cried because the Moon had died. The Watersnake, in response to this distress, created a fountain (spring) on the Moon to fill up the shoe, thereby renewing the lunar cycle. The Watersnake was thus responsible for the waxing of the Moon (Watts, 2005).

The origin of death related by virtually all the San and Khoikhoi groups, although with many variations, nearly always involves the Moon and the Hare (Schapera, 1965). One /Xam version is that the Moon once appeared to the young Hare and advised him not to cry at the death of his mother, who was not really dead but merely sleeping. The mother, according to the Moon, would return to the living in the same way that the Moon dies and returns alive once more. The young Hare did not believe the Moon and continued to cry. The Hare indicated that the Moon was lying to him. The Moon, infuriated by this accusation, cursed the Hare and struck it, giving the unfortunate animal a cleft lip. A slightly different and more common variant is that the Moon instructed the Hare to deliver an important message to mankind. The message was that: 'As I die and return again, so shall man die and return again'. The Hare distorted the message and informed man that

he would die and never ever return. The Moon was greatly angered by this gross error in transmission and cursed the Hare and split his lip. Death, since that time, has always existed on Earth. The /Xam avoided eating a certain small part of the flesh of the hare, which Schapera believed was possibly due to the myth of the origin of death. Schapera observed that the /Xam did not seem to have any noticeable fear of the dead. The names of the deceased, however, should not be uttered by children at night. Other San groups, as already stated, feared the dead (Schapera, 1965).

The story of the origin of death has many implications and ramifications which are too detailed to discuss here. The reader is referred to Guenther (1999) who devoted an entire chapter in his book to such issues of immortality. One viewpoint expressed by Guenther is that the story, at a deeper level, concerns the separation of the mythological past from the historic present. There was once, in other words, a mythological First Order of existence or primal time when the Early Race (using /Xam terminology) was in existence, and when ambiguity and flawed circumstances prevailed. A change then took place from the First Order to the Second Order of historic time and the present. This transformation, although retaining components of the First Order, was associated with a change in the immortality of all living things which forever became mortal. The Moon, in contrast, does not die. The reason why a hare was not eaten in its entirety by the /Xam was that a small portion of the flesh still contains human flesh from the time of the First Order, when present-day animals were primal-time humans and the humans of today were animals (Guenther, 1999). The significance of the Moon and the Hare myth should not be underestimated, since it was the foolish hare which brought death to mankind and the animals (James, 2001). The Moon is much greater in the overall scheme of things than a mere small hare. Death, a major event, is a severe judgment on an individual and is fickle striking one person down but not another. The story *inter alia* concerns the unpredictability of life and the necessity for an acceptance of death. A further discussion of the story in a /Xam context can be found in James (2001) and Wessels (2008a). The San living in Lesotho did not know the story of the Moon and the Hare, according to a young Maloti (Maluti) San informant by the name of Qing (Orpen, 1919). These San, nevertheless, did not eat the back part of the thigh of the hare. They were forbidden to do so by Cagn (the creator) since the described part of the animal was human flesh. The core theme of the origin of death (i.e. transmission of the incorrect message) applies throughout South Africa. The identity of the originator of the message as well as the messengers themselves varies considerably.

Reference has already been made to the /Xam praying to the heavenly bodies for food. One lunar account is that every /Xam man prayed to the New Moon when it first appeared (Schapera, 1965). An authority on the San in Lesotho, Joseph Millerd Orpen, stated that he saw the Maloti (Maluti) San throw sand into the air and ‘shout out’ at the first appearance of the crescent Moon (Schapera, 1965). The prayers were mainly for food. An example of a /Xam prayer to the Moon is given below. The prayer was spoken with the right hand raised. Schapera attributed the words of the prayer for food to Dorothea Bleek who published a journal paper containing the verse in 1929. The text has been taken from the latter source.

Ho, my hand is this,
I shoot a springbok with my hand
By an arrow.

I lie down,
I will early kill a springbok
To-morrow.

Ho Moon lying there,
Let me kill a springbok
To-morrow,
Let me eat a springbok;
With this arrow
Let me shoot a springbok
With this arrow;
Let me eat a springbok,
Let me eat filling my body
In the night which is here,
Let me fill my body.

Ho Moon lying there,
I dig out ants' food
To-morrow,
Let me eat it.

Ho Moon lying there,
I kill an ostrich to-morrow
With this arrow.

Ho Moon lying there,
Thou must look at this arrow,
That I may shoot a springbok with it to-morrow.

It is worth remembering that rain makes the plants grow, which in turn feeds the antelope and the other animals. Rain accordingly provided both vegetative as well as animal food for the San. A second /Xam prayer to the Moon for food, also given by Bleek (1929) is the following:

Ho Moon lying there,
Let me early to-morrow see an ostrich,
As the ostrich sits on the eggs,
Let me whisk out the yolk
With a gemsbok tail hair (brush)
Which sits together upon a little stick,
Upon which the gemsbok tail sits.

/Xam women consulted a small insect said to resemble the Moon, and to have the name 'Moon', to find out whether the men would be successful or not when hunting (Lewis-Williams, 2002). The actions of the insect when picked up and questioned indicated the

forthcoming state of affairs in terms of hunting. This insect was known as *!kao !kasso*, and was thought to be a thing which 'possesses' game, which Lewis-Williams interpreted as having the power to control the behaviour of game. James (2001) gives the spelling of this insect's name as *!ka-!karro*. The /Xam had many observances associated with hunting, known as *!nanna-sse* or 'hunting observances showing respect' (Hollmann, 2007). This set of behaviour was linked to /Kaggen who did not want the /Xam to kill eland and other large game which he had once made. Beliefs concerning the Moon were closely allied to the behaviour of game animals. The people were obliged to respect the Moon by observing a code of behaviour patterns, seemingly because the Moon was one of /Kaggen's 'things'. The /Xam could predict the outcome of a hunt by examining the Moon. A Full Moon was a positive sign since this Moon was not hollow (i.e. did not convey the dead). The Full Moon resembled the carrying net used by a /Xam hunter to bring food back to the rest of the band. The Moon therefore 'knew' that the hunters would be lucky. The explanation here is that the Moon, like the stars, 'knew' about certain matters which the San did not. A red-coloured Moon (a bloody Moon) also implied a successful hunt. The redness of the Moon was equated with the red blood of the animal. Another set of respect observances or avoidance procedures applied once poisoned arrows had struck the animal. A hunter, at this stage, must not look at the Moon in case the animal suddenly became lean (lost its fat) or actually recovered from the poison, through the intervention of the Moon (Hollmann, 2007). The Moon deposited its water (dew) on the Earth at night (James, 2001). Dew was very valuable and was described as being like 'liquid honey'. Both dew and honey had supernatural potency. Dew could destroy the poison on the arrow allowing the animal to escape (James, 2001). A different version, applicable to the /Xam and the Naron or Nharo, was that hunters looking at the Moon while following the spoor would result in the animal running much too far away before dying (Schapera, 1965). The difficulty was that hyenas or vultures could reach the animal first, or that the wounded animal would escape from the hunting territory. If the neighbouring band was friendly enough to allow the animal to be tracked in their own territory, then the meat had to be shared with that band (Schapera, 1965). A similar set of respect observances applied to the stars because they moved about in the sky, and if looked at, could also cause a wounded animal to walk around (James, 2001). James (2001) commented that the power afforded to the Moon by the /Xam helped to explain the uncertainties of hunting (i.e. success or failure).

The //Xegwi (Batwa) in the Lake Chrissie area of Mpumalanga once believed that the Moon (*klolo*) was a source of good things (the provider of rain and hence food), and that the waxing and waning of that body influenced the life of an individual (Potgieter, 1955). A crescent Moon in a horizontal position meant that no rain would fall. Once the crescent Moon was in a vertical position, however, it poured out the desired water (i.e. rain). When a man was given something useful or nice to eat he used the analogy of a Full Moon to express his satisfaction, although if he was suffering or in dire need, then reference was made to a small or dark Moon. Potgieter suggested that the //Xegwi may previously have worshipped the Moon, which was apparently envisaged as a manifestation of their supreme being known as /a'an (**see Chapter 2**). The //Xegwi married at the time of Full Moon. The bride price or bride wealth paid by the husband to the bride's parents in the old days consisted of a blesbok ram trapped in a game pit, or failing that, a large bird. The game was trapped at Full Moon and had to be delivered to the shelter of the bride's parents

while the Moon was still round (Potgieter, 1955). The marriage was then complete with the new wife immediately following her husband to his father's place where a shelter was erected for her. Barnard (1992) observed that this custom probably reflected an association between the Full Moon, fertility and general good fortune. Iron picks obtained from the Swazi could also be used as the bride price (Potgieter, 1955).

The //Xegwi were said to have buried the dead with the head towards the west in the past, and north in more recent times (Potgieter, 1955). A vault was excavated on one side of the grave in which the body was placed. The vault was closed with a suitable stone. In some cases burial took place in the hut of the deceased, which was burnt or abandoned (Potgieter, 1955). Barnard (1992) was of the opinion that the earlier custom could be linked to the rising (escape) of the spirit of the deceased with the setting Sun. The burial customs of the //Xegwi were otherwise much the same in the 1950s as those of their Swazi neighbours (Potgieter, 1955). A great feast (the 'feast of the deceased') was held by the //Xegwi at the Full Moon following the Moon when burial took place. There was singing, music and dancing. This was also the time for purification. On the morning prior to the feast all those who had attended the burial washed themselves in a ceremonial manner using medicine diluted in water. The feast was a happy occasion and appears to have been celebrated as a release from the solemnity surrounding the burial and the required period of mourning (Potgieter, 1955).

Worship of the Moon by the Naron and the Auen was still current amongst both young and old in the late 1920s (Schapera, 1965). The Moon was regarded by the Naron and Auen as an old man while the Sun was a young girl, the wife of the Moon. The Moon first pursues the Sun across the sky although the Sun, later on, follows the Moon. Both retire to their respective houses below the horizon in the west and then fly back at night, crossing the Earth to reach their houses in the east. The two celestial bodies can be heard passing along but cannot be seen. The New Moon, when it appeared, was invoked by the magicians. Two magicians, a man and a woman, sat together on the ground and held their hands out with the palms facing upwards towards the Moon. They exclaimed: 'Give us rain that we may live'. Schapera indicated that worship of the Moon had penetrated into 'modern' concepts, since most of the people (evidently the Naron and Auen) came to believe that God was the Moon. The logic was that the Moon is in the sky along with the God (*!khuba*) spoken of by the white people and the Nama. The Auen name for the Full Moon is *!nwi ≠esi*. Watts (2005) briefly referred to an old Naron belief (not mentioned by Schapera) that the Moon 'owned' the game and that it permitted hunting while waxing, but not when full.

Schapera (1965) referred, further, to a prayer to the New Moon for food which was recited in the 1880s by an !Kung youth (!Nanni) whose origins were near Lake Ngami. The words of the prayer are given in *Specimens of Bushman Folklore* which was published by Bleek and Lloyd (1911). The !Kung sounded a male antelope's horn when they first saw the young or small (new) Moon. The !Kung named this Moon *!ka!karrishe*, although the term used by the women was *!ka!karibe*.

Prayer To The Young Moon

Young Moon!
Hail, Young Moon!
Hail, hail,
Young Moon!
Young Moon! speak to me!
Hail, hail,
Young Moon!
Tell me of something.
Hail, hail!
When the sun rises,
Thou must speak to me,
That I may eat something.
Thou must speak to me about a little thing,
That I may eat.
Hail, hail,
Young Moon!

A subsequent report published in the late 1920s revealed that there was no trace at all of any lunar or solar worship by the !Kung. The Sun was regarded as a woman and the Moon as a man. Both originally lived on Earth and were carried around on the shoulders of the !Kung. The people later became tired of their burdens and left the Sun and the Moon lying alone. Both then ascended into the sky. The !Kung of the late 1920s did not believe this account, however.

The !O Kung of southern Angola prayed to the New Moon in the past (Schapera, 1965). Dorothea Bleek witnessed one such dance where the girls and the women stood in a group on one side, singing and clapping their hands. The men, arranged in an 'irregular group' on the other side, sang but did not clap, and wriggled their whole bodies while otherwise hardly moving. The song involved a repetition of the following words:

New Moon, come out, give water to us,
New Moon, thunder down water for us,
New Moon, shake down water for us.

The !O Kung, like the Naron and Auen, perceived the New Moon to be the giver of rain, and which was prayed to as such. The New Moon was regarded by the !O Kung as either a child or a man, in contrast to the Full Moon, which was a woman. The New Moon was male because of its slender appearance, whereas the Full Moon has a round shape indicative of a woman. The Moon was also thought of as an elder sister with the Sun as the younger sister. There were evidently no special beliefs or ceremonies in terms of the Sun, although the !O Kung sang to the Sun, the Moon and the stars. The puberty rites for !O Kung girls were linked to the Moon. Each girl at her first menstruation was kept secluded in a separate hut, where she remained until the New Moon was seen. A dance was held in her honour on the first nights of her seclusion with both sexes taking part, although

not the girl herself (Schapera, 1965). Watts (2005), citing an Angolan source, indicates that the !O Kung (the !Xũ) still associated the New Moon in the 1960s with success in hunting.

The Hiechware (Hietshware) of the eastern Kalahari had reverence for the Sun and the Moon, but apparently dreaded both more than anything else (Schapera, 1965). It was important for the Hiechware to remain on good terms with these two bodies if they wished to be successful in hunting and in any other activities. There were seemingly no special rites linked to the Sun and the Moon, nor were they the subject of prayer and worship. It is possible, according to Schapera, that the Hiechware had been influenced over a long period of time by the Tswana and had abandoned lunar worship. Another feasible explanation is that the author of the report on the Hiechware (S.S. Dornan) was not regarded by Schapera as a 'fully reliable authority'. Dornan, in a journal article published in 1927, discussed a specific Hiechware lunar story. It is related by the Hiechware that the female Moon came down to wash her face in a pool of water. The Hiechware were so engrossed in watching this event that their enemies were able to creep up unobserved and kill all the Hiechware. The Moon needed to wash herself because she had been cut away (reduced in size) by the Sun, with the result that she had shed much blood. Dornan (1927) speculated whether the darkened part of the new crescent Moon had given rise to the story. The Hiechware were well aware that the unseen section of the Moon formed part of the entire Moon. The Hiechware had no real explanation, as such, for the phases of the Moon (i.e. why one part of the Moon is dark and the other part bright, except at Full Moon) (Dornan, 1927). The Moon changes (waxes and wanes) because it is the child of the Sun (Dornan, 1921). The Sun can do whatever he wishes with the Moon. The Hiechware did not know why the Sun or */gham* was hot and the Moon (*/gwee*) was cold (Dornan, 1917a).

Dancing, apart from ritual occasions, was also undertaken purely for pleasure by the San (Schapera, 1965). Such dances took place on any fine moonlit night, particularly in times of plenty when the San had had a good meal and enough people were present. Dancing could continue until morning. Dancing was a very popular /Xam activity. Games were likewise played by children and adults in the evening. One of the /Xam games enjoyed by the men was referred to by older writers as 'Bushman cards'. The game was played with a stone or small piece of wood. The man who had the object rapidly changed it from one hand to the other to confuse his companions. He finally asked another man to guess in which hand he had concealed the object. If the guess was correct the first man called out: 'I eat the dog, you eat the meat' and handed the object to the second man. If the answer was wrong, the first player called out: 'You eat the dog, I eat the meat'. The players sometimes kept the game going for hours on end (Schapera, 1965). A very similar game played by the Tsonga was described by Junod (1927). Dornan (1917a) confirmed that the Hiechware were 'passionately fond of dancing' and that they lit fires usually at Full Moon, and danced and sang all night. Marshall (1986) observed that the northern San of more recent times welcomed the light of the Moon, and that the Full Moon always seemed to put these San in the mood to dance.

Schapera (1965), in summary, stated that the anthropological evidence quite definitely indicates that the San worshipped the heavenly bodies, particularly the Moon. The /Xam, the San in Lesotho and the !Kung prayed to the New Moon for food, while the Naron,

Auen and !O Kung prayed to the New Moon for rain. Schapera concluded that there was nothing to suggest that the Moon was conceived of as a supreme deity, or that there was some elaborate lunar ritual. Schapera (1965) was of the opinion, nevertheless, that the prayers and ceremonies clearly constituted an act of worship, which he believed to be part of the religious beliefs of the San. Readers should be aware that more current anthropological work, and a re-assessment of the old literature, has resulted in some doubt regarding San worship of the Moon, the Sun and stars. Guenther (1999) described 'worship' of the Moon as a misinterpretation of events, since a number of San groups undertook rituals during moonlit nights probably for practical reasons, and not religious conviction. The Moon, in other words, was a good source of illumination enabling trance-dancers to see what they were doing. This particular viewpoint was held by a number of latter-day Naron interviewed by Guenther. The same sentiment was expressed by some southern !Kung in the 1960s. Another concept advanced by a different group of San (the Kxoe or Kwengo) in the Caprivi Strip in far north eastern Namibia, was that moonlight aided hunters at night (Guenther, 1999). Watts (2005) provided further evidence of night hunting by moonlight, as undertaken by the !Kung resident at Dobe in western Botswana. This type of hunting existed as late as the 1970s, and involved hunters waiting in ambush at the few remaining waterholes in the dry season. This method was the most productive of the traditional !Kung hunting techniques. The /Xam, likewise, hunted by the light of the Moon at times. Guenther (1999) acknowledged that there were indeed differences of opinion regarding the actual significance of the Moon for the San. Some San regarded this celestial body as forming part of their religious beliefs, with others viewing the Moon as nothing more than a convenient source of light. Van der Post (1973) had a slightly different viewpoint, and referred to the contemporary San in the Kalahari who held a special dance at night when the Moon was full. The reason was that the Moon, from then on, would start to 'fade away' (become smaller). Unless the San clearly demonstrated their love for the light of the Moon, the Moon would fade away completely and die. The !Xõ of the 1960s and early 1970s regarded the Moon as a good thing because it gave them light and kept the night cool. The old people, however, did not tell the !Xõ much about the Moon and the Sun (Heinz, 1975).

In debating the role of the Moon it is necessary to distinguish between the New Moon and the Full Moon. We have seen that requests for food or rain were generally made to the New Moon and not the Full Moon. The Moon may have functioned in one era or another (a) as a source of appeal for survival, (b) as a giver of light for dancing and hunting, and (c) as an opportune occasion for dancing. The Moon was also linked to certain religious convictions involving death and burial. Marriage, too, was occasionally associated with the Moon, with the Full Moon being implicated in terms of fertility. The New Moon (**see Chapter 5**) was the time when /Xam girls, after their first menstruation, were reincorporated into the band. These puberty rites represented a new beginning for such girls. It is not impossible that changes in San perceptions of the Moon may have taken place over a period of time, as the old ways were rejected or forgotten. Some evidence for this state of affairs has been presented above. Additional information in this regard is provided below. We should not, in essence, lose sight of the fact that the Moon was an important temporal indicator denoting the passage of time.

Biesele (1978) questioned whether the few /Xam prayers to the Moon which have been preserved from the past, really constituted Moon 'worship' as such. Hewitt (2008), in turn, made the point that /Xam beliefs about the Moon, the Sun and the stars were probably not of primary religious significance, but were merely part of a more general attitude to the great forces of nature which were thought to influence the lives of the people. Hewitt thus believed that the term 'worship' as in 'prayers' was a considerable exaggeration of this process, and that the word 'request' was more appropriate. Worship has strong religious connotations, whereas 'request' or 'petition' have a somewhat benign meaning. The same sentiment could also apply to the Sun and the stars. Perhaps one solution to the above-mentioned difficulties lies in the realm of semantics or terminology.

More contemporary work by Silberbauer (1981) amongst the G/wi reveals that the Moon, the Sun and thunderstorms are acknowledged as significant creations of N!adima (the supreme being or creator). These three natural phenomena are asked for their assistance. The G/wi creator is remote and does not regard mankind as standing above the animals. There is absolutely no point whatsoever in praying to the creator or worshipping him. The same logic applies to his works, but does not preclude requests for help. The G/wi, in terms of rain, have a passive role and do not make any attempt to influence the rain by magic, prayer or other means. An imminent thunderstorm is addressed and is asked to come soon and to drop its rain not only in one territory, but everywhere, so that all the people can have food. These praises and entreaties are not thought to encourage the rain, but are intended to avoid offending the rain and N!adima by an apparent lack of appreciation. Other entreaties to the rain are similarly indicative of gratitude as well as hopeful anticipation. A G/wi analogy is that if rain falls on an ugly woman, even she will become beautiful (Silberbauer, 1981). It seems that Silberbauer is generally in agreement with the sentiments expressed by Hewitt (2008) regarding the forces of nature, notwithstanding a different time and place.

A related scenario advanced by the present author is that some San may have asked the Moon for sufficient *veldkos*, game and water so that they, too, could soon be like the Moon and have a full stomach. The Moon, in this hypothesis, visibly experiences physiological growth (becomes bigger) and is accordingly perceived by the San to have attained a state of psychological well-being. Both of these conditions were undoubtedly desired by the San especially in the more arid areas, and/or in certain seasons when shortages (deprivation) were common. There is some evidence for the postulated viewpoint in the literature.

One further point implied above is that 'prayers' to the Moon for rain would only have occurred at the appropriate time of the year. There are three rainfall regions in southern Africa: the summer rainfall region, an intermediate region with rain in all seasons, and the winter rainfall region. Most of South (and southern) Africa falls within the summer rainfall region. The winter rainfall region is situated in the far west of South Africa in the old Cape Province. The distribution of these rainfall regions immediately introduces a new dimension to the role of the Moon in the life of some southern San (the /Xam). A good atlas should be consulted to examine the localities of the three rainfall regions.

Some fairly current Naron, !Kung and G/wi lunar beliefs will now be examined. The Moon, according to the Naron resident on commercial farms in the Ghanzi district of

Botswana, is associated with death in two ways (Guenther, 1986). One link is that of the Moon and the Hare, as already discussed. The second linkage concerns the crescent Moon which is thought of as a boat carrying the souls of the dead to N!eri, the creator god of the upper sky. It is also said that //Gãũwa, the lesser god of the lower regions of the sky and the veld, became angry with the Moon. //Gãũwa functions in this context in his trickster role. //Gãũwa threw a blanket over the face of the Moon. The Moon managed to remove parts of the blanket from half of his face, leaving only a few dark spots. The rest of the blanket remains attached to the other half of the Moon's face, resulting in that side of the face of the Moon being forever dark (Guenther, 1986). Marshall (1999) provided further information on contemporary Naron beliefs. The crescent Moon when sloping downwards is said to be looking into a grave, and is a sign that many people will die in that season. An upwards pointing crescent is a favourable omen (not explained). The round Full Moon is an indication of satisfaction and means that the people will find plenty of food. Another Naron belief is that the Moon falls to the ground when setting and turns into an eland. The same people who eat the Sun also eat the Moon. These people throw the clavicle bone of the eland back into the sky in the same way that they throw the Sun's bone back (Marshall, 1999).

One Naron version of the quarrel between the Moon and the Hare, interestingly, has nothing to do with death coming to mankind (Marshall, 1999). The dispute is about which of the two is cleaner (i.e. who is superior). Marshall explained that the myth fits in rather well with the San concept of social equality, where it is unacceptable behaviour for one person to set himself up above the others. The people want peaceful relations with each other, with quarrels in most cases, being rapidly resolved and peace soon restored. This is what happens in the myth with the superior one being defeated in the quarrel, but with an absence of ill-feeling. It is related that hunters killed an eland and brought the meat to the encampment. The Moon and the Hare went to their waterhole to drink, to fill their ostrich-eggshell water containers, and to wash their faces. The Hare's face was still not clean after they had washed. The Moon asked the Hare to look at her face (the Moon's face) to see if it was clean enough. The Moon, rather tactlessly, told the Hare that her face remained dirty. The Hare was very annoyed that the Moon considered her face to be cleaner than the Hare's face. The angry Hare picked up a handful of mud and threw the mud onto the Moon's face. The Hare then pushed the Moon into the water, and filled all the ostrich-eggshells with water (both hers and those belonging to the Moon). The Hare carried these water containers back to the encampment. When the Hare returned without the Moon, the Moon's husband went to the waterhole and saw the Moon's light in the water. The people slept that night, and in the morning went to retrieve the Moon. They washed and cleaned the Moon and brought her to the encampment where they all lived together again in peace (Marshall, 1999).

Marshall (1986; 1999) observed that the Nyae Nyae !Kung of more recent times do not revere or pray to the Moon or have any lunar rituals, although this body gives welcome light at night. The Moon is a 'thing of the sky'. The Full (round) Moon is said to be female, while the crescent phases of the Moon with sharp points are said to be male. The !Kung are aware of five phases of the Moon. There is no lore to explain the phases. The various phases are: 'small new moon'; 'older small moon'; 'female moon or big moon', 'male

moon' and 'waning moon' (the last-mentioned being thought of as dying). The Nyae Nyae !Kung do not literally mean that the Moon is male or female or that it dies, however. These concepts are merely figures of speech (Marshall, 1986; 1999). Thomas (1959) confirmed that the Full Moon is regarded as female by the !Kung. A crescent Moon (a 'moon small new') is male, as are the great destructive thunderheads (cumulonimbus clouds) that bring hailstorms or electric storms which flatten the grass and destroy huts (Thomas, 1959). Other northern San groups (excluding the !Xõ) also regard the crescent Moon as male and the Full Moon as female, although these concepts are likewise a figure of speech. This linguistic sentiment applies to the Naron, the G/wi, the //Gana and the Chimbaranda or Tshimbaranda !Kung (a particular !O Kung group in southern Angola) (Marshall, 1986; 1999).

The Nyae Nyae !Kung do not know what the Moon actually is, why it changes shape, how it moves, or why it disappears (Marshall, 1999). According to !Kung folklore, the Moon falls down to the Earth like the setting Sun. The Moon rises up in an unknown manner and crosses the sky to the east during the day. The !Kung explain that the Moon can sometimes be seen in daylight making the crossing from one direction to the other. The great god makes the Moon move as it does. The Moon is said to reflect, but not cause events on Earth. A very red Moon is due to the blood of a person who has died, or the blood of some big animal which has been killed by a hunter (Marshall, 1999). It was once the procedure to make a wreath by twisting the stems of a certain plant, and to hang the wreath around the neck of an !Kung hunter (Giess and Snyman, 1986). This took place when the Moon was at 'its fullest' and was 'high in the sky'. The belief was that the hunter would see an eland the next day, and shoot and kill it. The perennial species under discussion is *Ceropegia lugardae* (also described as *C. lugardiae*) (Giess and Snyman, 1986). A ring or halo around the Moon meant that the spirits of the !Kung dead were dancing (Thomas, 1959). The Moon was their dance fire, while the ring was the circle made by their dancing feet (i.e. much like an evening San trance dance held on Earth). **See Chapter 4**.

The phases of the Moon were named by the G/wi and concern the New Moon, the crescent Moon, Full Moon and the last quarter (Silberbauer, 1981). Some G/wi believe that the direction in which the horns of the crescent Moon point is an omen for the fortunes of that month. South-pointing horns are an ominous sign. The Moon is far less important to the G/wi than the Sun. The G/wi only really take note of the Moon in the form of the crescent Moon, on the evening when it first appears. The bones of a game animal are thrown towards the crescent Moon. The G/wi recite a particular formula: 'There are bones of meat, show us tomorrow to see well that we [do] not wander and become lost. Let us be fat every day'. This was an appeal for guidance in finding plentiful *veldkos* and game animals. Silberbauer commented that the ceremony was thought to bring good luck in hunting and gathering, although it was not taken too seriously. Recitation of the words was often forgotten, without any regrets (Silberbauer, 1981). A ring around the Moon (a halo) is a sign to the G/wi that food will be plentiful (Marshall, 1999).

One item of G/wi folklore refers to the creation of the Moon (Marshall, 1999). Pisiboro, also known as N!iriba (the great god of the G/wi: **see Chapter 5**), dug up a *//ha* root one day. Pisiboro cut away the bottom part of the root and ate it, leaving a thin piece of the root. Pisiboro then threw this piece into the sky where it remained, hanging. This is the

Moon. The root in question is one of the roots which the G/wi depend on for food. The plant is a climbing vine (Marshall, 1999).

Schapera (1965) described the only two San first fruits ceremonies on record at his time of writing. Both ceremonies, held by the Heikum and the !Kung respectively, were applicable to the gathering of *veldkos*. Schapera made no mention of the ceremonies being in any way associated with the Moon. The collection of *veldkos* by the San was undertaken by both the men and the women, although this activity was incidental to hunting for the former. The Heikum ceremony involved only the women and was undertaken in February, generally after the start of the big or main rainy season. This was the time when a principal food source ripened (i.e. the fruit of the *≠huin* tree). Schapera did not name the species although it is not impossible that he was referring to the Brandy-bush/Raisin Tree/Wild Plum or Brandewynbos or Rosyntjiebos or Sandbessies (*Grewia flava*). According to Fox and Norwood Young (1983) the berries when ripening in December–January form the staple food of the Naron. All the Heikum women, on a day specified by the chief (*gei-khoib*), set out to gather the first fruits. The women were supervised by the chief's wife or *gei-khois*, who indicated which trees were to be picked. The men remained in the encampment (*//gaus*). The women, once they returned, deposited the bags of fruit in front of the chief's hut. The chief's wife filled four or five basins by taking a small amount of fruit from the bag of each woman. She put the basins under the *!heis* (a large tree in or near the centre of the camp). The chief kindled the *!hei-/ais* (a ceremonial fire under the said tree) and applied *≠norab* and *dabas* (the scrapings of certain plant roots) to the flames, thereby appeasing the fire and hence ensuring a plentiful harvest. The chief thereupon took a handful or two of the fruit and ate it. All could then freely eat the fruit. Schapera (1965) stated that there was no particular name for the ceremony, although the first fruits were known as *!gao-ei-/un*. The !Kung term for the Brandy-bush, interestingly, is */nun* (Fox and Norwood Young, 1983). A Heikum ceremony similar to the one outlined here and for the same purpose is described in Schoeman (1961) under the heading: *The Fire of the New Year*.

The head of an !Kung band made certain arrangements once a year, when the edible bulbs of the veld were beginning to ripen at the start of the rainy season (Schapera, 1965). The head, on a morning chosen by him, called for an assembly of all the members of the settlement, before sunrise. The head picked up some pieces of firewood mixed with dry grass and straw and put the wood in the required position. Everyone squatted down in a circle around the head. Another piece of wood in which a hole had been bored was placed on the ground near the firewood. A freshly-broken twig taken from a Wild Fig tree was inserted in the hole. [The species is probably the Common Wild Fig or Gewone Wildevy (*Ficus thonningii = F. petersii; F. burkei*): Pooley (1993).] A lit pipe was handed to the head. He took the pipe in both hands (held palm to palm) and twisted the pipe around over the wood (evidently the wood with the bored hole and the firewood) until the burning embers of the pipe fell on the dry grass and straw, which was kindled into a fire. A prayer to Huwe (a supernatural being) was repeated during this performance. The words of the prayer were: 'Father, I come to you, I pray to you, please give me food and all things, that I may live'. The members of the settlement (once the fire had died out) scattered in

all directions to search for the new bulbs, which they up until then had been forbidden to touch (Schapera, 1965).

The Khoikhoi

The Cape Nama and Korana name for the Moon was *//kxab* (Schapera, 1933). Hahn (1881) cited by Schapera (1965) gives the name of the Moon as *//Khab* (actually *//Khãb* in Hahn) or 'the returner'. Hahn (1881) mentions another name for the Moon, */garubeb* or 'the spotted-one', which is indicative of the visible craters on the surface of the Moon. De Grevenbroek (an early Dutch observer at the Cape: **see Chapter 2**) referred to the fact that the Khoikhoi, seemingly the Cape Nama, despised the Moon (Schapera, 1933). All the diseases of men and beasts, the inclemency of the sky, and the prevalence of disasters of every variety were attributed to the Moon. Women who had their monthly periods at Full Moon blamed the Moon for 'their illness'. The viewpoint expressed by de Grevenbroek is very definitely at odds with other early Cape reports. One such report was by Olfert Dapper, a serious writer resident in Holland, but who relied on others living at the Cape for his information on the Khoikhoi. Dapper describes the Khoikhoi as welcoming the New Moon with great joy. When this Moon was first sighted, the Khoikhoi turned towards it in groups and made merry the whole night. The Khoikhoi danced, jumped, sang and clapped their hands, also 'murmuring in their mouths' (evidently singing hymns). Ten Rhyne expanded on this description by observing that the men, with their bodies leaning forward, stamped vigorously on the ground with their feet. They chanted lustily in unison with rising and falling intensity. All had a serious expression on their faces. The women sat around in a circle, clapping and singing.

According to Schapera (1933) most of the early writers stated that the Khoikhoi welcomed both the New Moon and the Full Moon in the described manner, with three writers proclaiming that the Khoikhoi worshipped the Moon as a visible god. This deity, as per Schapera (1965), was known as Gounja or the 'Great Chief' by the Cape Khoikhoi. It is also said that children were brought out and shown to the New Moon by the Cape Khoikhoi (Dornan, 1927). Hahn (1881) indicates that the Cape Khoikhoi, at New Moon, gathered together in a party of 10 or 12 people and sat on the banks of a river, throwing balls of clay into the water. Hahn (1881) reproduced some of the words of the prayer reportedly sung to the New and Full Moon, while looking at the Moon: 'Be welcome, give us plenty of honey, give grass to our cattle, that we may get plenty of milk'. Hahn confirmed that he had personally witnessed the same dancing and singing to the Moon. Hahn goes so far as to state that the Moon was identical with Tsui //Goab as the 'Lord of Light and Life'. Two French missionaries (Arbousset and Daumas, 1846), who travelled through the north eastern Cape in previous times, indicated that Korana households assembled on a favourite elevation 'when the moon enters her first quarter'. The Korana danced all night long to the sound of the *tangtang* (a musical instrument). The missionaries stated that these dances sometimes continued for eight nights in succession.

Two other early writers, Roos and Marais cited by Schapera (1965), alleged that the religion of the Cape Nama consisted 'principally in worshipping and praising' the New Moon. The Nama men formed a circle when the New Moon was seen and blew on a hollow pipe or a similar instrument. The women then began to clap their hands and to

dance round the men. The women continually called out (sang in a praying manner) that the previous Moon had properly protected them and the cattle, and that they hoped for the same from the current New Moon. The dance was the ordinary reed dance of the Nama, although the invocation of the New Moon was a clear indication that the event was more than a mere social festivity (Schapera, 1965). Such religious dances were known as */gein*. The Moon and the Sun, according to the Nama of Namibia, were both said to have lived on Earth before there were any people there (Schultze, 1907 cited by Schapera, 1965). Schapera (1933) in discussing the Moon on the basis of certain old reports of somewhat questionable validity, concluded that the Khoikhoi probably did pray to the Moon in earlier times, given that this body featured prominently in their mythology and was an object of reverence. A much later report by Olpp published in 1884 (cited by Schapera, 1965), and again referring to Namibia, indicated that prayers to the Moon were no longer heard and that the worship had ceased, but that the New Moon was always 'hailed in welcome'. Dances, interestingly, were still held at Full Moon, accompanied by music from reed pipes (*≠ati*), the *rommelpot* (a membranophone or friction drum), or the fiddle.

More recent writers including Carstens (1975) and Barnard (1992) reject the notion that the Moon or any other celestial body was worshipped in a religious sense by the Khoikhoi. It is stated that certain Khoikhoi customs and beliefs have long been misinterpreted or misunderstood by European anthropologists. Carstens (1975) stressed that there has been some confusion regarding the 'divinity' of the Moon and an association of the Moon with the worship of Tsui //Goab. Carstens suggested, instead, that sacrifices were made to Tsui //Goab *during certain phases of the Moon* (a very different concept). Sacrifices do not appear to have been offered to the Moon itself, nor are there any reports of authority figures ('priests') officiating at Moon worshipping ceremonies. It is possible, further, that an erroneous connection was made between Gounja and Tsui //Goab (Carstens, 1975). Barnard (1992) was of the opinion that the Moon was not the Khoikhoi supreme being himself, but rather the visible manifestation of that being. Watts (2005) indicated that there was some evidence to support the viewpoint that the timing of Khoikhoi dances was linked to the light provided by the Moon. Watts provided additional information on certain aspects of these dances including the use of red cosmetics. Watts (2005), citing various sources, referred to Khoikhoi marriages as taking place at Full Moon. Khoikhoi herbalists or medicine-men made 'young people's medicine' only when the Moon was waxing, and never when the Moon was waning (Laidler, 1928).

One explanation for the lunar cycle involves the legendary hero of the Khoikhoi, Heitsi Eibib (Hahn, 1881; Kidd, 1904). He was a small baby who was carried around by his mother on her back. Suddenly Heitsi-Eibib grew large, overpowered his mother, threw her to the ground and committed incest with her. He then grew small again, resuming his childlike appearance. His mother subsequently took no notice of him, throwing him aside. The mother represents the Sun and Heitsi Eibib, the Moon. The story refers *inter alia* to the New Moon 'riding on the back of the Sun'. The Moon slowly grows in size, becoming bigger than the Sun. The Moon, thereafter, begins to dwindle once more to nothing. The mother has thus thrown Heitsi Eibib away. Hahn (1881) seemed shocked by the reference to incest which did not reflect Khoikhoi norms of behaviour at his time of writing. Hahn suggested that the story must be of considerable antiquity.

There are several versions of the Khoikhoi explanation for death, which are similar to those of the San (Schapera, 1965). In the version related by Schapera, it is the Louse or bush-tick which first carried the message from the Moon to mankind. The Louse was intercepted on the way by the Hare or *!õas* (the Nama word for this animal). The Hare as we have seen delivered the wrong message, much to the annoyance of the Moon. The Moon hit the Hare on the lip with a piece of wood, splitting the Hare's lip. The Hare responded by scratching the face of the Moon. The Hare is therefore the fateful deceiver who distorted the promise of immortality made by the Moon. The Moon, in turn, is the avenger who punished the second messenger. The Khoikhoi consequently reject the hare and will not eat its flesh (Schapera, 1965). Another reason why Khoikhoi men refrained from eating the hare was to avoid becoming as faint-hearted as the hare (Hahn, 1881). Schapera (1965) mentions several remedial (purification) actions which were required if an initiated Khoikhoi man ate the meat of a hare due to necessity and extreme hunger, or simply without being aware of the fact. A pot in which a hare's flesh had previously been cooked had first to be cleaned with fire before it could be used by the men, although it was preferable that another pot be found. Remedial measures were also necessary if a man even came into contact with a fire on which a hare had been cooked. Four Khoikhoi versions of the origin of death can be found in Bleek (1864), which are listed later in the chapter.

The New Moon served as a calendrical device for pregnant Nama women in Namibia (Schultze, 1907 cited by Schapera, 1965). Gestation was recognized to extend over nine months and progress was carefully measured. According to Nama beliefs, the first signs of pregnancy in a healthy woman were usually not the cessation of menstruation, but rather symptoms such as the beginning of sickness, vomiting and a lack of appetite. The foetus was not regarded as being alive until the seventh month. Calculation of the gestation period commenced at the New Moon after the first indications of pregnancy, when a cut was made in one of the poles of the hut. Every successive New Moon was marked in this fashion until the ninth cut had been made, when preparations began for the delivery of the baby. A halo round the Moon signified that a decisive battle had been fought somewhere, and that the cattle of the vanquished had been driven off (Schultze, 1907 cited by Schapera, 1965).

The Zulu

The Moon was once believed by some Zulu to be 'on this side' of the sky (Krige, 1950). Others thought that the Moon was a hole in the heavens. The Moon was also said to be the Sun's officer (Krige, 1950). Another version was that the Moon was the servant of the Sun (Kidd, 1904). The Moon died each month and came back to life once more, or else a New Moon was made. The days devoured the Moon which concealed itself in the Sun when it became very small (Kidd, 1904). A similar version provided by Krige (1950) was that the days devoured the Moon, which diminished in size until it was as 'thin as a man's nail'. The Sun found the Moon in this state in the east. The Sun then fetched the Moon and travelled with it, leaving it in the west, where the New Moon can be seen. The people used to beat drums, even in the time of Shaka, when they saw the New Moon. No one worked in the gardens the next day, believing that they would never reap the benefit of such work (Krige, 1950).

It is instructive to examine the 'Zulu' phases of the Moon in greater detail, which fortunately we are able to do. Bryant (1905) cited by Faye (1923) provided a useful listing of the phases. Faye made two minor amendments. The phases are as follows:

- **Day of the New Moon (the Moon is just appearing)** = *inyanga iyetwasa*;
- **The first day or two of the New Moon (it has appeared)** = *itwese*;
- **The Moon is in the first quarter** = *is'il'ucezu*;
- **Full Moon** = *is'ihlangene* or *is'idilingene* or *is'igcwele*;
- **The Moon is in the last quarter** = *is'ihlepukile* or *is'il'ucezu*;
- **The Moon towards the end of the last quarter when the crescent leans down flat towards the east (i.e. is not vertical as before)** = *is'ifulatele ezantsi* or *is'ipetele ezantsi*;
- **The Moon on the last day before its disappearance, or alternatively sometimes when the Moon is already full** = *is'il'ib(h)amuza*;
- **The Moon has gone (disappeared)** = *is'ifile*;
- **The black or very dark day, immediately following the disappearance of the Moon. This was a day of solemn retreat, one of abstinence from work and pleasure-seeking** = *ng'olumnyama namhla*;
- **A white or brighter day, namely, the second day after the disappearance of the Moon and the day immediately preceding the reappearance of the Moon. The people were free to work again on this day** = *ng'olumhlope namhla*;
- **The Moon which is coming in (appearing)** = *is'iyetwasa*;
- **The Moon which is laughed at by chattering birds (i.e. when setting just before sunrise)** = *is'ihlekwa înyoni*;
- **The Moon which is now overtaken by dawn (i.e. sets during daylight, after Full Moon)** = *is'iyaselwa*.

Krige (1950) indicated that no important undertakings were begun during the period following the last day of the old Moon when the Moon was dead (*ifile*), until the New Moon appeared. The Zulu, similarly, regarded the day before the first appearance of the New Moon as an inauspicious day for warfare (R. Lock). Another viewpoint is that it was not customary for the Zulu to fight on the day that the Moon waned (Webb and Wright, 1982). An allegedly famous example of this sentiment was supposed to have occurred at Isandlwana, on the 22nd of January 1879, during the Anglo-Zulu War. Some historical texts refer to the Zulu as not planning to attack the British on the given day, either (a) because it was the 'Day of the Dead Moon', or (b) because it was the 'Day of the New Moon'. It is said that the Zulu were compelled to fight on that day, after they were inadvertently discovered by a British patrol. It is an established fact, nevertheless, that there was a partial solar eclipse on the 22nd of January 1879 which was visible at Isandlwana (**see Chapter 4**).

A solar eclipse, by definition, can only occur at the time of New Moon. If (a) is to be entertained, then it is not impossible that the Zulu had miscalculated the days due to an extended period of overcast weather at the height of summer (or for some other reason), and were unsure of the exact state of the Moon on the 22nd of January. This is just speculation. A further opinion is that any association between the role of the Moon and Isandlwana, in terms of warfare, is based on a mistaken interpretation of events. Supportive of this notion is the fact that circumstances forced the Zulu to fight on three different (geographic) fronts on the 22nd of January, only one of which was Isandlwana. The British succeeded in driving the Zulu off in the two other engagements on that particular day (Knight, 2003). It should be noted that Bryant (1905); Faye (1923) and Krige (1950: drawing on older sources) are not completely consistent regarding customary taboos and lunar phases.

A further perspective on Isandlwana was provided by Raum (1973) citing Miss F.E. Colenso of the (then) well-known and pro-Zulu Colenso family of Pietermaritzburg. Her father was Bishop J.W. Colenso, who amongst other things, published a Zulu-English dictionary (see: Colenso, 1905). The general rule, according to Miss Colenso, was that no business could be conducted by the Zulu on the day of the New Moon. Miss Colenso stated that the camp at Isandlwana would have been safe from attack on the 22nd of January 1879, which was the day of the New Moon. The prohibition was 'broken', however, by a British attack on a party of warriors on their way to join the rest of the Zulu army at Isandlwana. The significant point is that the taboo regarding the New Moon was not even *then* adhered to, if it was to the disadvantage of the observer of the custom (Raum, 1973). This statement may explain the willingness of the Zulu to fight the British on the day in question at the other two battles mentioned above. A final thought concerns the described uncertainty surrounding taboos and the Moon. One possible solution, in terms of taboos and Isandlwana, involves an expansive definition of a New Moon. Such a scenario could perhaps encompass the period extending from the absence of any Moon up to the time when the New Moon was due according to Zulu calculations. But this again, is speculation.

A waning crescent Moon (after the last quarter), which 'lies on its back' with the points (cusps) of the crescent level and turned upwards, was of meteorological significance for the Zulu. It was believed that this event, in summer, was sometimes likely to be followed in five days' time by heavy rains and floods (S. Nxele). If the crescent bowl of the New Moon faced downwards towards the Earth, however, it was 'empty'. No rain could therefore be expected that month (Kühle, 2002). The Zulu, Basotho and Xhosa thought that a lunar halo foretold rain (Sullivan, 2001; Pepin, 1996; Soga, 1931).

Each Zulu child in the past had to have his or her ears pierced before reaching puberty (i.e. at the age of seven or eight years old) (Krige, 1950). The piercing of the ear lobes was the first step from childhood to adulthood, and ensured that 'the ears of the mind might also hear'. This procedure only took place at Full Moon or New Moon, and usually involved several children at a time. The actual ceremony, involving much feasting and dancing, was known as *Qhumbuza*, *klekla* or *ukudabula izindlebe*. The ceremony was usually held just after the harvest. The term invoked when the New Moon appeared was '*ukwethwasa kwenyanga*' meaning 'it is time to begin making a person, or adding a new unit to the family'. Full Moon was selected because the children were then 'being made full members

of the family' (*uma inyanga ihlangene*). The holes in the lobes were gradually enlarged over time, by inserting increasingly bigger objects therein (Krige, 1950). Certain Southern Sotho also pierced the ears of (older) boys and girls, although this was done at the chief's village in winter, some months before their initiation (Ashton, 1967). The operation was performed quickly and skilfully with a needle. The hole was kept open by a thick piece of grass. The people in question were the Batlokoa (Tlokoa) or Batlokwa (Tlokwa).

A taboo imposed on Zulu boys was that they must not look at the Full Moon in case they continually wet their beds (Raum, 1973). A Zulu belief is that moonlight is the best time for lovers to visit their sweethearts. Only unsuccessful lovers venture out in the dark (G. Maphanga). Those guarding the royal enclosure (*isigodlo*) in the time of Shaka as well as Dingane (Dingaan) kaSenzangakhona were known as *Qwayi-inyanga* or 'Moon-gazers' (Bryant, 1949). [Webb and Wright (2001) give the term *ugqayinyanga* or 'the one who watches the moon'. Another version refers to the *ogqayinyanga* (plural) who were so-called because at dawn they would be staring (*gqaya*) at the Moon or *inyanga* (Webb and Wright, 1986).] These nocturnal sentinels were required to watch over the royal concubines and other women living in the *isigodlo* as closely as the ordinary Zulu people watched the Moon. The penalty for any unauthorised male presence in the royal enclosure was death (Bryant, 1949).

When a Zulu king died, it was reported that he was 'indisposed' (Bourquin, 1986). This expression indicated that something serious had occurred, which could not be spoken of 'in so many words'. High-ranking officials knew the true state of affairs, although the common people were kept in ignorance. There was a great deal of tension and secret speculation about the regal succession at that stage. No one dared to speak openly about the matter. Silence was partly due to the fact that it was the custom that the body of the king (even if he had died at the beginning of the lunar month) was not removed from his hut for burial before the New Moon. This was certainly the case when Mpande kaSenzangakhona died on the 18th of October 1872 (Bourquin, 1986).

The Zulu in the past believed that there was a race of tiny people (*izichwe*) who were even smaller than the San (L.H. Samuelson, 1974). They carried bows and arrows wherever they went. These pygmies lived in caves and holes. It is said that the pygmies quarrelled over the rising Moon every evening. The pygmies used the Moon as a target for practising archery. The pygmy who first sighted the Moon had the right to shoot at the Moon before his companions, calling out 'There is my lump' meaning that it was his property. Such possession of the Moon was disputed by the others, resulting in arguments and blows being struck. These actions continued until the Moon was too high in the sky to be shot at by the pygmies (L.H. Samuelson, 1974).

It is stated by the Zulu that certain craters on the Full Moon resemble a woman carrying a child on her back, and with a bundle of wood on her head (Ellis, 2002). On certain days, long ago, the people were forbidden to go into the forest to collect firewood. One woman had a very naughty child who cried out for food on a day when this restriction was in force. The mother ignored the prohibition and went to the forest to fetch wood. On her way back home with a bundle of firewood on her head the Moon, as punishment, came down and took the errant mother and her child up into the sky, where both are destined to remain

forever (Ellis, 2002). Some Zulu children, when naughty, are still advised by their mothers that they will be sent to the Moon just like the woman of the story (Govender, 2011).

The Xhosa

Many Xhosa in previous times believed that the Moon which appeared on successive nights was not the same Moon, but rather a different ('new') Moon (Soga, 1931). When the Moon set (*ukutshona*) on any one day, it simply ceased to exist. A completely new Moon took the place of the previous Moon the following night. These moons were inserted in the heavens by an unknown agency. Some Xhosa thought that the sea horizon (*ulundi*) was the boundary of the world. The sea stopped at the horizon, beyond which, was a vast pit (*iwolokohlo*). All the moons were stored in this pit. A fresh Moon was taken from the pit and placed in the sky each evening. The Xhosa resident on the coast were aware of the phases of the Moon and the corresponding tides (Soga, 1931). The Full Moon, as per the Xhosa, was the optimum time to treat children for worms (T.E. Matomela). Children were required by their parents to drink juice derived from aloe leaves on the day after the Full Moon was first sighted. The children, alternatively, were made to eat a powder obtained from dried and ground pumpkin seeds. It was said that worms collected in one place in the stomach at Full Moon. This was the best time to kill all the worms. A further Xhosa belief was that the crescent Moon, when seen ascending across the sky, was a sign that it would be bitterly cold or windy on the following day (T.E. Matomela). This Moon was known as *iNyanga eselweyo* ('an overslept moon'). Another Xhosa belief refers to 'a person on the moon' (Hodgson, 1982). Ritual observance governs the felling of trees by the Xhosa (Gitywa, 1971). One example is that a tree should be cut down on a day when the Moon sets before sunrise. The sentiment here is that the tree becomes waterlogged when the Moon can be seen during the day (*xa inyanga iselwe*). The tree in this case is unsuitable for carving pipes and other articles since the wood is likely to crack. The water level in the tree is thought to be 'low' when the Moon is invisible during the day, resulting in the wood being suitable to work with. The wood then takes a shorter time to dry.

The Xhosa Feast of the First Fruits (*ulibo*) was held at a specific Moon in summer when the first crops were ripening (Soga, 1931). No one was permitted to eat the first fruits until the formal ceremony had been held by the chief (*inkosi*). The chief issued an instruction or *ukushwama* ('to proclaim') to the people to gather at his Great Place (residence) on the appointed day, when he would *shwama* to inaugurate the feast. Each person brought some of the first fruits from their fields, such as pumpkins, sweet-sorghum, beans and various types of grain. The first fruits were ceremonially consumed at the ceremony, with the people then returning home. Every household held their own ceremony early the next morning when a selection of the first fruits was prepared and cooked. The men were not permitted to eat pumpkin at the time of the first fruits, since this would make them unhealthy and weak. All the men of the household assembled in or around the cattle enclosure (*ebuhlanti*). The food was taken to the men, and a small amount was placed on the back of the hand of all present. Everyone took the food into their mouths, eating some, and spitting out a little to the east and to the west, while exclaiming '*zila ngoluzayo*' meaning 'abstain, when next year comes around'. This declaration confirmed that the custom would again be observed in the following year (Soga, 1931). An important part of

the annual Feast of the First Fruits was the reaffirmation by the sub-chiefs of their loyalty to the chief (Peires, 1981).

The Mpondo Feast of the First Fruits (*ingxwala*) enabled the chief (*inkosi*) to control the harvest and to prevent the squandering of the new season's crops, by forbidding the people to eat the green foodstuffs until he (the chief) had ceremonially tasted thereof (Hunter, 1961). The primary purpose of the ceremony, nevertheless, was to strengthen the warriors ('to make the warriors strong'). The feast therefore constituted one of a series of army treatments undertaken on different occasions, which reinforced the power of the chief and the dependence of the people on their chief in times of danger. Success in battle was directly linked to specific medicines which could only be used through the chief. The ceremony originally consisted of three parts. These were a private treatment (*intende*) of the chief, the treatment of the army (*ingxwala*), and the ritual eating of the first fruits at each homestead. No man or woman was permitted to eat the new pumpkins or sorghum before the army had been treated. Any transgressions in this regard resulted in the fine of a beast, levied by the chief. There were no restrictions on the eating of maize (an introduced crop). Hunter noted that the Mpondo dispensed with any large public assemblies for the *ingxwala* ritual once the era of warfare had passed (i.e. some time prior to 1931).

The *intende* ceremony was held at Full Moon in December. The next stage, with the waning Moon, was the treatment of the army when all the warriors gathered at the chief's Great Place. Women and girls from the neighbourhood of the Great Place brought baskets of new pumpkins and sorghum, which were cooked in a large pot together with medicines. The chief was required to first taste or *ukuswamisa* this mixture, with the whole army doing likewise. A bull was killed and the meat was eaten with various medicines (as applicable at other treatments of the army). The *inyanga yempi* or army doctor (a herbalist or *ixhwele* or a doctor diviner or *igqira*), who knew war medicines, treated the army. The men later returned home, where new pumpkins and sorghum were eaten along with medicines at every household. The household head (*umnumzana*) nibbled the medicines, ate the new crops, spat out in all directions, and stabbed with his *assegai* in the various directions in which he had spat. The rest of the household, including the women and children, ate and spat in the same manner. The objective of the ceremony at home was likewise 'to make men strong', i.e. 'to make their knees strong'. This concept was applied to the women of the household who ingested the medicines with the new crops. It was thought that anyone who ate the new foods without the medicines would become half-mad and quarrelsome (Hunter, 1961).

The Bhaca Feast of the First Fruits or *ingcubhe* was held over three days (Wednesday–Friday) at the end of summer or in early autumn (February or March), when the maize, sorghum and pumpkins were ripening (Hammond-Tooke, 1962). The ceremony in the distant past was evidently held at the time of the New Moon usually in February, or March if the crops were late in ripening. The actual date, more recently, was jointly decided by the chief (*inkosi*) and the *inyanga yempi* or 'the herbalist of the army'. The ceremony should ideally take place during a period of rain. No one was allowed to eat green foodstuffs until the ceremony was over, failing which, the army would become weak and easily overcome by enemies. It would seem that this taboo only applied to the men, who constituted the

army. The Bhaca *ingcubhe* was held primarily to strengthen the office of chieftainship, and thereby the people and the army, and was not as the timing would suggest, a purely harvest festival. Various rituals were enacted during the ceremony including the spitting out of medicines by the chief and a review of the army by the chief. A bull was killed. The chief ritually tasted and spat out the green foodstuffs (green pumpkins and green mealies). Members of the royal family then came forward also to 'bite' the first fruits. The pots containing the first fruits were later emptied on the ground for the warriors to taste. The last and an important part of the ceremony was the doctoring of the army by the *inyanga yempi*. The Bhaca *ingcubhe* ceremony was completed at the Great Place. There was no secondary stage where the medicated first fruits were eaten at individual households, in contrast to the Mpondo (Hammond-Tooke, 1962).

The Swazi

The Moon was thought of as a woman who follows the Sun, her male lord (Kuper, 1944). When the Moon died she was 'hidden' or 'covered' by the Sun and subsequently reappears. There is sexual symbolism in this scenario, where Beidelman (1966) in referring to the Zulu and the Swazi, states that each size or phase of the Moon is a product of its coupling with the Sun. The Swazi in common with others in South Africa correlated the lunar and solar year (see later in the chapter), although there was inevitably confusion and a Moon was 'lost' (Kuper, 1944). The Moon and the Sun were connected with human destiny, where things are born and grow, but also age and die. The Moon was of greater importance since the phase of the Moon determines several major events such as the day a king was 'shown to the people'; the end of the mourning period by a widow, and the moving of royal villages. When the Moon was round and full a person was 'healthy and shining', although later weak and puny in the increasing darkness of a waning Moon. A ceremony to introduce someone into the fullness of a new status (such as newly-fledged Swazi diviners and herbalists) took place when the Moon was growing or full, while a ceremony which temporarily isolated a man from society was held in a period of lunar decline and darkness (Kuper, 1944). The Moon played a significant role in Swazi funeral customs, where the spirit of a deceased family member (the husband, wife or child) was 'brought back' or *ukubuyisa lidloti* to the family and the village at the first Full Moon after death (Marwick, 1940). The Swazi king himself is connected and identified with the Sun and the Moon (Kuper, 1944).

The corpse of a dead Swazi king was treated with reverent care and special ritual (Kuper, 1961). News of the death was kept secret until the successor had been installed. The ordinary people were only told that the king was 'ill' or 'busy', although a select few high-ranking Swazi, including the queen mother, knew the truth. A primitive method of embalming was undertaken, but only for the king. The corpse was buried when the heir had been announced. Chiefs and subjects from across the country were summoned for the burial. The body was carried to the royal burial caves on a night 'when the moon is black', i.e. not visible. The Moon played a role in the duration of seclusion after a baby had been born, and therefore which Moon was shown to the infant. Queens stayed in a specific hut until the fourth Full Moon after the birth, whereas the wives of important princes remained in seclusion until the third Full Moon following the birth. Poor commoners stayed for less than a week. One reason for this divergence was that noble women had others to help

them with the daily domestic tasks. The longer period of seclusion for noble women also enabled them to take ritual precautions at a stage when mother and child were regarded as weak and susceptible to harm (Kuper, 1961).

The phase or colour of the Moon (darkness versus light) was of ritual significance for the Swazi (Beidelman, 1966). Darkness as in the 'covered' Moon, however, is a somewhat ambiguous quality. For example, black beads symbolize marriage and wealth in cattle, but also denote evil, disappointment and misfortune. White, too, is an ambiguous colour. White beads are associated with the Moon and the cleansing properties of this celestial body. Such whiteness is compared to clean sea sand and to purity in women and medicines. The whiteness of the Moon, like the whiteness of ashes, also implies a state of transition for instance when a young baby dressed in white beads is shown to the white Moon to alter its status from a 'thing' to a person, but is held at the same time over an ash-heap (signifying bone, white beads and hatred) (Beidelman, 1966). The Swazi king is praised as the bright Sun and the royal children are washed in medicines to make their blood 'shine', although the king is likewise praised as one 'born amidst black shields' and as the 'black hero of the Swazi' (Kuper, 1961). Black and white, while opposite in many senses, also have similar qualities and when combined in a king, a rain-storm or a certain type of magic, produce the 'utmost power' (Beidelman, 1966). Beidelman goes on to discuss several other examples of the meaning of white and black in various Swazi rituals. The role of the Sun and the Moon in a most important ceremony (*Incwala*) will now be discussed.

Incwala is a Feast of the First Fruits ceremony which introduces the new year, but which has much wider connotations including a celebration of kingship and the affirmation of national unity (Kuper, 1944). The proper timing of *Incwala*, a vital consideration, is the responsibility of elderly councillors. Any serious miscalculation on their part is punished by a fine and perhaps dismissal from office, since it is regarded as treason and not merely incompetence. The ordinary people offer suggestions on the timing of the ceremony and possibly also the king and the queen mother, although neither royal is held responsible for incorrect timing. Every morning the councillors stand in the cattle enclosure to watch the rising Sun, judging its position on the horizon according to established landmarks. The councillors examine the sky in the evening, and discuss the size (phase) of the Moon and the position of the stars. The Sun is the most significant overall parameter given that the date of *Incwala* is fixed by the summer solstice. The ceremony must commence on the day *after* the Sun has reached the point of summer solstice (when it is 'resting' in its hut), and while the Moon is dark. The Swazi, nevertheless, are aware that the coincidence of the summer solstice on the 21st of December with a waning Moon is a rare event. The councillors decide on the Moon prior to the 22nd of December, and arrange for the ceremony to end after the Sun has reached its southernmost position. It is thus said that 'the king races the sun'. It is unacceptable (a) for the ceremony to be over *before* the Sun has started its return journey northwards, and even worse (b) for the ceremony to begin *after* this time. Either occurrence is a national disgrace, necessitating a special ritual to rectify matters. If (a) has occurred then a doctor from the Mabuzo sub-group (who treat and fortify the king after a royal death) must provide the king with certain medicines. These medicines are similar to those used when the king has experienced 'pollution' following from the death of a queen. If such medicines are not provided then the king will not be strong enough for

the rigours of the new year, and will also not have sufficient strength to withstand the kings of other people who evidently have the 'strength of the sun'. If (b) occurs then a special beast without horns must be used at one stage in the rectifying ritual to effect the 'breaking through' from the old year to the new year (Kuper, 1944).

Incwala consists of two ceremonies, namely, the Little *Incwala* (*incwala lencane*) and the Great *Incwala* or *incwala lenkulu* (Marwick, 1940; Kuper, 1944; 1972). No one is permitted to eat the new green foods of the season before *Incwala*. An important part of the preparations for the Little *Incwala* involves the departure of the *bemanti* (the king's ritual messengers) at the New Moon preceding the Little *Incwala*. The *bemanti* are divided into two groups, those who collect seawater from the Indian Ocean in Mozambique ('people of the sea'), and a subordinate group who collect water from distant rivers ('people of the water'). The sacred water is used to strengthen and purify the king. The water must be drawn on the day of the Full Moon. The primary messengers also collect various plants (for medicines) which are likewise used to strengthen and purify the king. The *bemanti* return to the capital (Lobamba) just prior to the New Moon in December when the Little *Incwala* takes place. This ceremony lasts for two days. The king enters his private sanctuary or bower (*inhlambelo*) at sunset on 'the black day' (*lilanga lemnyama*) when there is no Moon. The regiments (*emabutfo*) are in attendance. The dancing of the regiments changes (when the king enters the *inhlambelo*) from a new crescent Moon-shape to that of a Full Moon formation (a circle), to reflect the changing phase of the Moon at this time. The king is doctored (fortified) in his sanctuary. Various rituals take place including the king spitting medicine to the east and to the west, thereby 'stabbing the new year', i.e. breaking the old year and preparing for and consecrating the new year. The warriors again form a circle when the king re-enters the *inhlambelo* at sunrise the next morning. The king spits medicine to the east and to the west once more. The main ritual of the Little *Incwala* is then over, although certain other activities are undertaken before the ceremony ends (Marwick, 1940; Kuper, 1944; 1972).

There is an interim period of 14 days, or more latterly 15 days before the Great *Incwala* begins (Kuper, 1944). This period is used to ensure that all is ready for the main ceremony. The relevant Moon is known as *yenkosi lenkulu*. There is great debate as the Moon waxes. Two questions are paramount: when will the Moon be full, and should *Incwala* open on that day or the following day? Kuper referred to elderly councillors who insisted that the ceremony, when the king is only the heir apparent, should begin *on the day before the Full Moon*. When the king has reached maturity, the ceremony should open *on the Full Moon*, but when the king has acquired a full harem of wives then the ceremony must start *on the day after the Full Moon*. Kuper (1944) noted that the Great *Incwala* opened a day after Full Moon in the years 1934–1936 inclusive. Kuper, interestingly, states that Christmas usually falls in the *Incwala* period, a further confirmation that it is the Moon which is ultimately the deciding factor in the precise timing of *Incwala*.

The Great *Incwala* lasts for six days (Kuper, 1944). On the first day, a regiment of unmarried (ritually pure) male youths or *emajaha* marches some 40 km at night to a particular place to cut branches of the sacred *lusekwane* tree (Marwick, 1940; Kuper, 1963). This deciduous shrub or small tree is the Sickle Bush or Sekelbos (*Dichrostachys cinerea*). The cutting of

the branches must commence as the Full Moon rises. Various ritual songs are sung. The young men have to retrace their steps (an approximately 80 km journey in total) and arrive back at Lobamba when the Sun is well up (Marwick, 1940; Kuper, 1963). [According to Kuper (1944), however, the youths must return before dawn.] The regiments form up in a crescent Moon configuration in the morning of the third day, and assume a circle (Full Moon) formation as night falls (Marwick, 1940; Kuper, 1944). In the early morning on the fourth day (the great day of the ceremony), the king spits strengthening medicine to the east and west (i.e. he stabs the year). The king, by now suitably fortified, is strong enough to 'bite' (*luma*) the new crops of the season, which up until then were regarded as ritually dangerous and unsafe to eat. The king returns to the *inhlambelo* where women and the warriors form a circle around the sanctuary. The king spits to the east and to the west for the last time during the ceremony, but on this occasion the medicine consists of seawater, some of the green foods, and special portions of a large black beast killed on the third day of the ceremony. Only then can other high-ranking Swazi *luma* at the ceremony, in the precise order of their position in the social hierarchy. The queen mother is doctored with medicine on the fifth day so that she can *luma*, and has marks painted on her face resembling a half-Moon. The equivalent procedure for the king, undertaken the day before, involves painting both sides of his face like the Full Moon. On the last day (one of final purification) all objects no longer required from the ceremony as well as other items from the old year are burnt on a large fire. The king, the queen mother and the people are left strengthened to face the coming year. There is a great deal of feasting and revelry later in the day and that night. The Moon is now waning. One further event remains, which involves weeding the gardens of the queen mother, the king and the queens. The warriors gather together early the next morning and proceed to the largest maize garden of the queen mother, there to weed the garden. The regiments disperse to their homes after a few days. The permanent royal battalion then goes to weed the king's gardens and subsequently the gardens of the queens. *Luma* ceremonies for the new season's crops are performed in the countryside by those chiefs, headmen and ordinary householders who did not attend the national ceremony (Marwick, 1940; Kuper, 1944).

There is no *Incwala* if there is no king (Kuper, 1944). A much abbreviated form of the ceremony is held when the king is a minor. On the third day the boy and his mother are painted, as described, although the boy is painted to resemble a half-Moon and his mother a crescent Moon (Kuper, 1944). *Incwala*, from a military perspective, constitutes a review of the regiments which come from all parts of the country (Marwick, 1940). There is a clear link with warfare in the past when the gathered Swazi regiments were first doctored at Full Moon, before setting out on their military expeditions. *Incwala*, in summary, is a most important ceremony, the agricultural component of which links the king (via the timing of the ceremony) with the Sun and the Moon, the great powers of nature (Kuper, 1963).

The Northern Sotho

Each Moon was considered to be a new one, with the previous Moon having died (Beyer, 1919). The Northern Sotho name for the Moon (*kgwedi*) means 'something which is bright, pleasing and soothing' (Watson, 1983). The Moon was made by the Tree of Life (a type of 'being'), using a ball of clay and stones. This ball ended up in the sky. The Sun eventually

took the Moon as his wife, but only after 'softening her pride' by sending the hyena of darkness to eat a little piece of her each day. A small section is always left so that the Moon can grow again. The Moon is a visible sign of growth (continuity) to the Northern Sotho (Watson, 1983). The people, especially the children, cheered when the thin, New Moon was first seen (Beyer, 1919; Watson, 1983). The reason was that it was forbidden to work in the fields and to cut trees on the following day (a day of rest). The Moon, it was said, should not be disturbed in order to grow and become strong. The horns of the New Moon were carefully watched by the Northern Sotho. A good omen was when the horns were turned down towards the Earth. This meant that all sickness had been 'turned out'. The Moon was full of misfortune when the horns faced towards the heavens (Beyer, 1919; Watson, 1983). Another (Pedi) version is that if the horns of the crescent Moon point downwards then it will rain, with no rain evident if the horns face upwards (Mönnig, 1983). Breutz (1969) stated that old men of the Tlôkwa first looked for the refection of the New Moon in water poured into a clay pot. Breutz's informants, however, believed that it was not possible to see the New Moon any earlier in this way, and that a taboo which prevented them from taking more than a glance at the New Moon could have been responsible for the custom. Breutz speculated whether this procedure had been introduced by the Lemba (see below). Full Moon, for the Northern Sotho, was an auspicious time to fire their pottery (Breutz, 1969).

Breutz (1969), in discussing the Sotho-Tswana, observed that most undertakings were expected to be successful while the Moon was waxing, usually after the first six days. There was (or still is) a belief across South Africa that seeds will germinate successfully when sown after New Moon (Breutz, 1969). The initiation ceremony (*bodika*) of Kgaga boys took place at New Moon in winter, with the entire event once lasting for three months; or in later times for 4–5 weeks during the mid-winter school holidays (Hammond-Tooke, 1981). The traditional Pedi initiation lodge (*mphatho*) consisted of a temporary circular enclosure made of wooden poles lashed together and covered with grass and the branches of shrubs and trees (Roberts and Winter, 1915; Mönnig, 1983). There were two entrances. The first entrance (facing east) was the *Khoro ea Banna* or 'the Gate of the Men' and could only be used by fully initiated men. The second entrance, facing west, was the *Khoro ea Baloi* or 'the Demon Gate' and was exclusively reserved for the initiates. Any initiate, in previous times, who attempted to enter the enclosure through the wrong entrance was immediately killed (Roberts and Winter, 1915). The reason for the orientation of the entrances was not explained. Pedi youths, following their circumcision, were well-supplied with porridge because it was regarded as shameful to send them back to their homes in a poor physical condition (Winter, 1913). The day of the New Moon shortly after circumcision was a deliberate exception, since it was on this day that the initiates were denied any food at all. The circumcision rites extended over a period of three months. Hoffmann (1931) described a similar custom amongst some Northern Sotho where girls undergoing initiation abstained from food at the time of the crescent Moon (after New Moon). This custom was maintained for the duration of the initiation. The initiation (*byali*) of Tlôkwa girls also at New Moon was discussed by Kruger (1937). The Lovedu or Lobedu once thought that Copernicus heralded the approach of winter and the time for circumcision (Krige and Krige, 1980). Copernicus evidently refers to a specific Moon and

the prominent lunar crater of Copernicus in the Oceanus Procellarum. The crater can be seen with the naked eye.

Breutz (1969), seemingly referring to the Sotho-Tswana generally, noted that children must not gaze at the light of the Full Moon, failing which they would wet their beds or urinate in the home. Adults should merely glance briefly at the Full Moon in case they became moon-blind or night-blind. All Sotho-Tswana in the past refrained from working in the fields at the time of the dark Moon (i.e. the dead Moon). The corn, had they done so, would not grow. No new projects should be started at this stage of the month. Also an apparently common Sotho-Tswana belief was that the mentally ill were worse when the Moon was waxing, although they had 'an interval of sanity' when the Moon was dark (Breutz, 1969).

The appropriate New Moon signalled the time of the Feast of the First Fruits or the new year festival ('to bite the year') for the Sotho-Tswana (Breutz, 1969). The ceremony was an important fertility feast during which ritual purification took place, a new ceremonial fire was kindled, and the pumpkin was 'bitten'. The ceremony also involved ritual sexual relations between the chief and his great wife, and confirmation of the relative social ranking amongst the people. Every fire was ritually extinguished during the dead Moon (Breutz, 1969). It appears that Breutz was referring to the dead Moon immediately preceding the New Moon of the ceremony. A description of the Feast of the First Fruits of the Letsoalo (a Northern Sotho people) can be found in Hoffmann (1928). The Dikgale (another Northern Sotho people), whose totem was the hyena, would only eat the first fruits and celebrate the new year when the Moon was waning (Hoffmann, 1931). The reason was that the hyena preys in the dark. The following Hurutshe (Tswana) poem, recorded by van der Merwe (1941) in the Zeerust district, neatly encapsulates the prevailing African sentiment regarding this animal:

The Hyena

I am the son of the one sent in the darkness
I left saying,
"I am not sent by moonlight, as I am not a little boy."
I am the hyena, I am not mentioned during night
Lest it may happen that I (decide on) attacking,
I, Mr. Prowler, crouching about,
Son of the one sent in the darkness.

The Southern Sotho (Basotho)

The Basia, a Southern Sotho people resident in the Harrismith district (like the Lemba) had a specific custom regarding the New Moon (Ellenberger, 1912 cited by Stayt, 1931a). A glazed earthen pot was filled with very clear water when the New Moon was anticipated. It is claimed that as soon as the crescent appeared, it was reflected in the water, even in the most glaring sunlight. The first man to discover the reflection in his pot immediately reported to the chief who announced the fact and sent out messengers to summon the people to a feast. The diligent observer of the New Moon was entrusted with the distribution of refreshments at the feast, and was declared to be the 'ruler of the feast' (Ellenberger, 1912

cited by Stayt, 1931a). The strictest decorum applied at the time of the feast when married people slept apart and no one went to the fields (Ellenberger, 1912 cited by Breutz, 1969). The cattle were kept in the enclosure until midday and were forced to run when let out. All the milk from that day was used to make a type of milk porridge (*mahala*), instead of being poured into skin bags to thicken as usual. The young people were not permitted to approach the food for the feast (i.e. the day before), failing which they might become infirm and later have children who squinted or who had sore eyes (Ellenberger, 1912 cited by Breutz, 1969). The custom of elderly men examining water in a pot to see the reflection of the New Moon was also applicable to the Batlokoa (Tlokoa) or Batlokwa (Tlokwa). The Batlokoa in the 1930s built their circumcision lodges during New Moon (Breutz, 1969). The Batlokoa celebrated the appearance of the New Moon every month, and held a feast for this purpose (Ellenberger, 1912).

The initiation of Basotho girls in the old days began at New Moon, while the initiation of boys started with the Full Moon (du Plooy, 2006). The two ceremonies were linked with one following the other, although female initiation took place first. When the New Moon was seen for the first time, the person observing this event shouted out loudly: 'You did not see it while you were in the hut'. For unknown reasons there has been a change in relatively recent times where male initiation began at New Moon and female initiation at Full Moon. The Full Moon symbolizes female initiation, sexuality and fertility. The rising of the Full Moon, nowadays, is monitored although no ceremony or special conduct is required (du Plooy, 2006).

The Moon was invoked in other ways. Ashton (1952) observed that some Basotho women did not fire pottery when the Moon was waning, since they believed that such a Moon would 'weaken' the pots. How (1962), resident in Lesotho and the daughter of J.C. MacGregor and granddaughter of D.F. Ellenberger (see the **Bibliography**), recorded information from elderly Basotho who had direct knowledge of the last days of the Maloti (Maluti) San. How referred to a particular pigment known to the San as *qhang qhang* (a type of glistening and sparkling haematite), and which they used for rock painting. The pigment had to be specially prepared outdoors at Full Moon by a woman who heated it until red hot in a dung or other type of fire. This rich, red pigment was ground between two stones to create a powder, which was mixed with fat and fresh eland blood. Only *qhang qhang* was mixed with eland blood, with other pigments (colours) being mixed with media such as water or plant juices. The San thought that *qhang qhang* provided protection against hail and lightning, a belief adopted by certain Southern Sotho (How, 1962).

The crescent Moon was, and still is indicative of rainfall for the Basotho (Pepin, 1996). If the new crescent Moon is facing upwards, not necessarily with the horns level, then the month will be dry. The Moon is collecting the water, and preventing it from falling to Earth. The water (i.e. rainfall) reaches the ground in the converse situation, again with the horns of the new crescent Moon not necessarily level. The Basotho thought that the tilt or angle of the crescent controlled the amount of rainfall, although on a varying scale (Pepin, 1996).

The Southern Sotho, according to Hammond-Tooke (1962), did not have a Feast of the First Fruits ceremony. Ashton (1967) supports this viewpoint, with the partial exception

of the Batlokoa, some of whom still held the ceremony at one time. It was said that the Batlokoa should not eat their first fruits before the chief had eaten his first fruits, unless they had previously made a small offering of these fruits to the chief. The first fruits at household level were eaten in order of seniority, beginning with the senior son. The first fruits rites were undertaken to emphasize the importance of the chief and family seniority. There was a belief that those who failed to properly observe the custom would become crippled.

The Tswana

The Tswana were well aware that the Moon travels more slowly through the sky than the Sun, with both bodies rising together once every 28 days (Clegg, 1986). The waxing Moon carries diseases in its hollow, while an inverted waning Moon spills these diseases out on the Tswana to their detriment (Clegg, 1986). The Tswana resident in the Ventersdorp area, in the present-day North-West Province, once believed that the New Moon exerted a dangerous influence for this very reason (Breutz, 1954). A New Moon with a vertical crescent indicated rain. No rain could be expected if the crescent of the New Moon was inclined at a considerable angle. Breutz (1969), in a more general observation and apparently referring to the Tswana, noted that there will not be any rain when the horns of the Moon are facing upwards (at New Moon). If, however, the Moon 'is very much on one side', then it pours out rain. The Moon, in a slanting position, is also said to pour out disease. Illnesses such as colds, influenza, headaches and related ailments will not commence at the described phase of the Moon, but only when the Moon becomes dark (Breutz, 1969).

Dornan (1927) maintained that the Tswana in the old days danced at the time of New Moon and Full Moon, and that the Tswana had derived their beliefs about the Moon from the Nama and the Korana with whom they had long been in contact. Possibly related to this scenario is the statement by Breutz (1969) that the first appearance of the New Moon was hailed by the Tswana. The people pointed at the New Moon with their fingers, threw objects at it, and exclaimed: 'Come thou to me with riches!' or 'Bring me cattle!', or expressed any other wish desired by a wife or child. Breutz at his time of writing in 1969 stated that Hurutshe women continued to ask the Moon for riches, and that the Hurutshe still covered corn reserved for seed with blankets when the New Moon appeared. There was a belief that children born during New Moon were healthy (Breutz, 1969). The Bapiri or Baphiring stayed home at New Moon in previous times, and did not go to the fields (Stow, 1905). They believed that their millet would otherwise fail to sprout, or that the ears would not develop properly, or that rust (a fungal disease) would destroy the crop.

A rather different version of the reaction to the New Moon, also evidently by the Tswana, is given in Breutz (1969). In this case the appearance of the New Moon was greeted with alarm. It was believed that the Moon had cursed the women. All the boys had to go to the *kgôtla* (the courtyard of the chief) to be lashed with *moretlhwa* switches. The plant described, which had ritual significance, is the Brandy-bush/Raisin Tree/Wild Plum or Brandewynbos or Rosyntjiebos or Sandbessies (*Grewia flava*) Tswana = *moreeko; morethlwa; moretlwa* [note slight variation in spelling] (Fox and Norwood Young, 1983). Willoughy (1932 cited by Breutz, 1969) referred in this regard to the cursing of the Moon,

but in an obscene manner. The sense here is of cursing people by pointing to the female pudenda, or dishonouring them with names which are perfectly respectable when applied to cattle, although not to people. It was said, further, that the female New Moon is seen by a baboon a day before the people could see it. Other Tswana informants interviewed by Breutz indicated that a baboon cannot see the New Moon ahead of the people, and that this statement was only an idiomatic saying connected with the menstrual periods of women (Breutz, 1969). A very similar version according to Clegg (1986) is that the Moon is visible in the sky every night during a lunar month, although with one exception. Only the baboons can see the Moon on the night in question. God and the ancestral spirits are asleep on this particular night, and their assistance cannot therefore be summoned by traditional doctors (Clegg, 1986). It is possible, as per Breutz (1969), that the subsequent dead Moon and female menstruation were linked, which could explain the above-mentioned 'curse of the women'. Men had to abstain from sleeping with women at this dangerous time, for fear of becoming ill and perhaps being killed by venereal disease. It was taboo for girls and women to go to the cattle enclosure at New Moon. Menstruating or pregnant women were excluded from entering the cattle enclosure. There is an obvious symbolic association here between the menstrual cycle of women and lunar phases (Breutz, 1969), although the details are somewhat contradictory.

One Tswana Christian belief involves a man on the Moon (presumably the Full Moon) (Clegg, 1986). The man is carrying an axe. He was caught chopping firewood on the Sabbath (Sunday) and was placed on the Moon for all time, as a warning to others. A slightly different version of the story was given by Breutz (1969). The man was said to have collected firewood or thorn bush on a day when work was taboo, more latterly regarded as a Sunday. The deity banished the man to the Moon where he is required to carry thorn bush or firewood around, and where he must also prepare leather. Willoughby (1932 cited by Breutz, 1969) called the man *Rra tlhaku* or 'Daddy Bushes'. *Rra* means 'father', which according to Breutz is reminiscent of the original ancestor, while *tlhaku* means 'a sandal'. Breutz speculated whether there was an inherent San influence, since the San believed that a sandal was thrown into the sky and became the Moon. This account may have resulted in the Tswana believing that the early ancestor worked with leather. A non-Christian variant of the Moon story is that the figure is a woman carrying a child (Clegg, 1986). The woman was apprehended gathering wood at a time when she should have been helping to prepare for a ceremony to honour the ancestors. A halo around the Sun or Moon indicates rain in the near future, as does a very hot Sun (Clegg, 1986). Another perspective is that a lunar halo signified that there was an assembly of spirits (*kgwedi e epile pitso*) (Breutz, 1969). The hare was associated with the Moon and Tswana children were forbidden to eat this animal (Breutz, 1969).

Willoughby (1909) provided a detailed description of Tswana initiation rites. The central rites were the same for the various Tswana groups, although there was a considerable variation in the accompanying rituals. The initiation ceremony for boys was known as *bogwèra* and that for the girls as *boyale*. The date of the *bogwèra* depended on the discretion of the chief (*kgosi* or *morêna*), but only to a certain extent. The ceremony was held once every fourth year. The chief sometimes delayed or advanced the *bogwèra* to enable his own son or a nephew to participate in the ceremony. The chief could hold the ceremony at any time in February or March, but not in other months. The ceremony, however, nearly

always began with the New Moon in the lunar month of *Tlhakole* (February). The chief, once the New Moon had been seen, summoned a great assembly of the adult men. The men, armed with their weapons, gathered together at sunrise a short distance away from the settlement. The chief announced that the assembly was that of the *magwèra* (singular = *bogwèra*). The men returned home to find their children who were ready for initiation.

The boys, during the first stage of the ceremony, were assembled according to their ward or *lekgotla* (an administrative entity incorporating *inter alia* a village or several villages). The boys walked to a given place in the countryside, and were guarded by their fathers, older brothers and those of their ward who had already been initiated. This place was where certain trees grew, i.e. the Umbrella Thorn or Haak-en-Steek (*Acacia tortilis* subsp. *heteracantha*) Tswana = *moshu; mosu*. The men felled the trees. The boys then removed the inner bark of the smaller branches and thoroughly chewed the bark to extract the long fibrous threads. The threads were taken away by the officiating regiment (those last initiated) or the *badisa ba bogwèra* ('the herdsmen of the neophytes', more correctly known as *makgaye* or *makgaiyane*). Members of the regiment wove the threads into kilts (*moshu*) which were worn by the boys after being circumcised. The kilts were immediately hidden from the eyes of uncircumcised persons and women (a serious transgression). The boys must likewise not be seen by such people while chewing the thread. It was a matter of ritual that the boys should face the Sun throughout the day, when they were chewing. The reason, perhaps, was so that the uninitiated boys could not see the sacred garments which they were later to wear. (Some Tswana did not insist on this solar procedure.) There was much dancing and singing, in which the boys participated, while the chewing and weaving was going on. This event was referred to as the *go rèma* or 'the chopping' ceremony. The ceremony continued day after day, beginning at dawn, for most of *Tlhakole*. The boys were allowed to go home each night.

All the boys went to the *kgotla* (the place of assembly) in the evening when the next Moon (*Mophitlho*) was sighted in March, there to spend the night singing and dancing. The boys subsequently returned home to their mothers. All the initiated men assembled the next morning and escorted the boys or neophytes to the initiation camp (often referred to as *bogwèrèlō* or 'the place of the *bogwèra*' and also as *bodikana*). The custom was for the whole party to run to the camp. The camp had previously been prepared by the men and women, and was situated near a spring or river. Each *lekgotla* was accommodated in a specific hut, with the camp being surrounded by a strong fence of interwoven branches. The *makgaye* presided over the sacred rites of initiation, but only those who had remained chaste since their own initiation. A preliminary procedure, therefore, involved the elders interrogating the officiating regiment regarding their chastity. There were unpleasant consequences for anyone failing this test. The first ceremony of the *bogwèra* was circumcision, which took place on the day the boys entered the camp. The boys were circumcised in order of rank. On the morning after their initiation the boys put on their *moshu* for the first time in order to dance. The *moshu* was removed when the dancing ended. The neophytes, commonly described as *modikana* (singular) or *madikana* (plural), were forbidden to wear clothing at other times while in the camp, and had to sleep on the bare ground. The neophytes smeared their bodies with white clay to hide themselves from women and to remove 'the signs of boyhood'. Purification by water was a feature of the

camp, with the boys washing themselves twice a day in the morning and evening. Singing and dancing continued unabated, including the march to the water source. The neophytes ate food cooked by the women of the village or town, and delivered by women and girls. The food was collected from a spot out of sight of the camp by the officiating regiment. The neophytes were supplied with porridge only for about the first week, which had to be eaten in a ceremonial manner. Abundant meat was given to the neophytes thereafter. The neophytes spent part of each day hunting small animals such as hares and smaller antelope, although the meat was only eaten by the elders of the boys who happened to be present in the camp, and by members of the officiating regiment when in the company of these elders.

A prominent part of the post-circumcision phase of the camp was the regular beating of the boys. The boys were beaten with switches every morning before dawn in the place of assembly at the centre of the camp. The boys were always reminded of their past faults (before initiation) while being beaten. Every mistake a boy made when reciting the initiation songs resulted in a special application of the switch. The boys, when thrashed, were instructed to always obey their fathers and mothers. Beatings were also applied on a number of other occasions. The neophytes were given no time for leisure with constant singing and dancing. Many of the songs were not specific to the ceremony itself, although others such as the Songs of the Law (*Dipina tsa molaō*) were sacred. One of the concepts instilled in the boys by means of the Songs of the Law was the need for chastity once they had completed their initiation.

The neophytes remained in the camp during the *Mophitlho* and *Moranañ* moons (March and April), returning home when the *Motsheganoñ* Moon appeared in May. The boys before leaving the camp had their heads roughly shaved and washed their bodies. They anointed themselves with various substances and put on new clothes. The camp and all the initiation regalia were burnt towards evening, whereupon the youths went home. The newly-initiated, now men and warriors, were given their regimental name by the chief, and were then referred to as *dialogane* (‘the returners’). They were people of importance and were required to walk with downcast faces and solemn dignity. The *dialogane* went to the *kgotla* at sunset where mats were spread out for them, and spent the night on the mats.

Early the following morning the *dialogane* had their heads shaved once more, only properly this time by the women. A decoction of pumpkin seeds was smeared on their faces. Shields and spears were given to the *dialogane* who were sent out to herd cattle. Towards evening the *dialogane* were met by the men and had their faces marked with white lines. This first day was known as the ‘Day of the *Thoyane*’. The *dialogane* returned to the *kgotla* before sunset, there to lie on the mats. All the men and women of the settlement who had undergone initiation gathered at the *kgotla* and sang the *Thoyane* songs throughout the night. The officiating regiment shielded the *dialogane* from the gaze of the women who occasionally attempted to pull the blankets off the sleeping *dialogane*. These festivities continued for about a week after the return of the *dialogane* from the initiation camp. Every day the *dialogane* set forth to herd cattle or to hunt and slept on their mats at the *kgotla* at night. The *dialogane* preserved their dignity when girls and women were around, and spoke only to the men. Each evening the initiated (although unmarried) girls assembled

at the *kgotla* to try to see the *dialogane*. The officiating regiment, night after night, was obliged to protect the *dialogane* from the prying eyes of the girls. The girls did a great deal of singing on such nights. Willoughby (1909) observed that the names and character of the *Thoyane* songs varied somewhat amongst the Tswana. Some Tswana referred to these songs as *Dipina tsa maitishō a dialogane a motlhapudi*, where *motlhapudi* means 'clean' or 'one who is clean', and is also the term for the overseer of the *bogwèra*. The word *maitishō* is used in the sense of leisure. The whole phrase *Dipina ... motlhapudi* can be rendered as: 'Songs of the Leisure of the Returners, the Clean Ones' (**refer to Chapter 2**).

The *dialogane* returned home after the week during which the *Thoyane* songs were sung. They received presents from their fathers and were taken long distances to see friends who were generous to them. For months to come the youths (now known as *boshōtlwane* or 'those who have moulted and put on their spring plumage') strutted around in their new-found glory while wearing fine clothes. The *boshōtlwane* later went to the cattle posts or did whatever work was necessary. They were required to remain chaste for the next four years or until such time as they, in turn, initiated the next regiment of neophytes (Willoughby, 1909). A further perspective on Tswana male initiation rites can be found in Brown (1921).

Breutz observed in 1969 that the Hurutshe and other Tswana continued to begin and end their circumcision schools with the New Moon. The same procedure applied to the BaKxatla, Kxatla or Kgatla, where the youths remained in the initiation camp for about three months, until the second day after the New Moon of the fourth month (Schapera, 1978). The Tswana had an annual sacrifice of a black bull to honour the chief's ancestors, the timing of which was according to a specific New Moon (Breutz, 1969).

The Tsonga

Some Tsonga thought that every Moon was a rebirth, with the old Moon having died (Junod, 1927). Junod believed that the Moon was probably personified in past times, since the name has the feminine suffix of *eti*, as in the Ronga word *hweti*. The Sun and the Moon have a race every month. The New Moon 'is not yet firm' (*a yi si tiyela*) like a new-born baby and has a feeble light. The Moon is dominated by the Sun, but grows and fights. The Sun realizes that the Moon, when full, is something to be reckoned with (it *is* now the Moon). The Moon then diminishes; it delays in the sky with the Sun soon overtaking the Moon, forcing it to pass behind. The Moon is thereafter completely vanquished. Certain Tsonga living near the sea noticed that the tide was higher at Full Moon.

The New Moon was of special significance for the Tsonga. The day of the New Moon was a *shimusi* (a day of rest). It was taboo to till the fields and to cut the roots of trees with a hoe. Destroying winds and hail could occur if this taboo was transgressed. The Tsonga also believed that this was the time when certain individuals had an attack of lunar madness. The first person to see the new crescent Moon exclaimed out aloud, with the exclamation being repeated from one village (*muti*) to the next. Dancers rejoiced since they would have moonlight for their feasts. There was nothing to fear if the horns of the Moon faced towards the Earth. All the dangers associated with this month had been poured out (*mafumo ma hangalakile* = 'the *assagais* were dispersed'). The Moon was full of weapons and misfortunes, however, if the horns faced the heavens (Junod, 1927).

The New Moon played a role in spirit possession and exorcism (Junod, 1927). Such spirits or deceased people were strangers (i.e. not of the Tsonga). The afflicted person was treated by a doctor who specialized in this disease. These doctors were known as *gobela* by the Ronga. Treatment of the patient commenced as soon as the New Moon appeared. The possessed person, provided that he had the necessary aptitude, later became a *gobela*. He served a period of apprenticeship with a qualified *gobela*, learning the art of exorcism. The apprentice was thus renewed (born again like the Moon) and entered a new life. The new *gobela*, apart from various activities associated with his enhanced status, was required to undertake the *haza* ceremony which was a monthly purification rite. This involved the ingestion and then vomiting up of medicine to purify his insides. The ceremony was performed at each New Moon. Diviners were also required to react to the New Moon. Every diviner (*wa bula*) ritually washed his divination bones at New Moon to remove the defilement of the preceding month (Junod, 1927).

Tsonga children, like others in South Africa, played games during the day and in the evening when there was sufficient moonlight. Story-telling by adults took place in the evening since it was taboo to tell stories in the middle of the day. Anyone who did so would become bald. Those already suffering from baldness were jocularly accused of having told tales at midday. One form of entertainment in the evening (apart from ritual beer-drinking and other social activities) involved the women forming a team and playing a game against a team of men. The game consisted of guessing which of four closed hands held a hidden piece of charcoal. Competitive riddling took place later. The side losing the riddling contest was required to tell stories. The children were particularly delighted with the stories, especially if a renowned story-teller was present. The Tsonga believed that certain craters on the Moon resembled a woman carrying a basket or a bundle of sticks, although no significance was attached thereto (Junod, 1927).

The Venda

The Moon (*nwedzi*, often called *makhadzi*) is the head of all the stars (Stayt, 1931). The Moon is thought to be racing with the Sun across the sky, but is always left behind. The Moon is eventually badly beaten in this race when the New Moon appears. The New Moon is the 'little moon' (*nwedzana*), while the waning Moon is said to be dying or going dark. The VhaLaudzi or 'people of the baboon clan' (Vha-ila-Pfene) venerated the New Moon. The people were forbidden to work in their gardens on the day after the New Moon was sighted. The Venda in general believed that a waxing crescent Moon with the horns facing upwards is a basin which contains all the coughs and colds. The waning crescent Moon with the horns pointing downwards, in contrast, is the inverted basin which spills these coughs and colds on the Earth. This interpretation is clearly linked to winter (Stayt, 1931). Another perspective is that plentiful rain can be expected at about the time of New Moon because the rain is then washing the Moon to make it new again (Musehane and Litshani, 2011). Mentally unstable people should be treated with kindness at New Moon since this Moon exacerbates their condition.

Venda circumcision rites for girls, known as *Hali, Sungwi* or *Musevhetho*, involved amongst other things a very minor surgical procedure on the vagina (the removal of a small piece of skin above the clitoris) as well as two slight incisions on the thighs (van Warmelo,

1945). On the day of circumcision the girls first gathered together and later went down to the river, arriving at the river about an hour before midday. This was on the day of the New Moon. The girls (after circumcision) spent the whole night dancing and singing until daybreak the next morning. A special ceremony, the *mahuvhula*, was subsequently held at the homestead of the chief to publicly honour the newly circumcised girls. The ceremony took place in the evening in the darkness of the New Moon, seemingly a day or two after circumcision (van Warmelo, 1945). Note that the exact sequence of events described by van Warmelo is ambiguous and confusing. The above information is the best interpretation achieved by the current author.

The Lemba

The Lemba, according to Mathivha (1992), had names for the different phases of the Moon (not given). The Lemba paid considerable attention to the New Moon (Stayt, 1931a). A large black bowl was filled with water at about the time that the New Moon was expected. The bowl was placed on the ground outside the hut of each headman, in a position where the midday Sun would shine directly on the bowl. It is said that the reflection of the New Moon could be observed (close behind the reflection of the Sun) in the bowl, just prior to noon on the day before the New Moon became visible to the naked eye. The man who first saw the reflection of the New Moon informed all his neighbours. All the men and women promptly shaved their heads for ritual purification and fasted for the remainder of the day. The day thereafter was one of rest when any kind of work was prohibited (Stayt, 1931a). The Venda knew that the New Moon was about to appear by observing the suddenly-altered appearance of the Lemba (van Warmelo, 1940). Thompson (1942) noted that the Lemba new year began with the New Moon which was first sighted at the end of November. Only the old men were permitted to look at the New Moon of the new year. Other members of the household were required to first observe the reflection of this particular New Moon in bowls of water put out by the old men (Thompson, 1942). The Lemba, as per Mathivha (1992), poured a 'certain powdered substance' over the water which enabled them to see the heavenly bodies (the reflection thereof on the water surface).

A similar version of these lunar rites was provided by le Roux (2005) from Lemba oral testimony derived in South Africa and Zimbabwe. A bowl of water was placed under a tree or in the shade of a hut just prior to the time of New Moon. The New Moon, a day or two before it became visible to all, was seen to be reflected in the water in the bowl, usually around midday. The person who first saw the reflection of the New Moon shouted out: 'You were not there when I came home' meaning that the Moon was not visible at the *lapa* or courtyard. The person promptly ran to inform the chief. The chief sent his servants to the river to establish whether they really could see the reflection of the New Moon in the bowl. The chief, if the answer was affirmative, blew his kudu horn with the headmen doing likewise. The people immediately rushed to the river when they heard the horns. All the old men and old women shaved their heads with everyone fasting for the remainder of the day. No work was done on the following day when all brought food to the chief. The Lemba looked at the New Moon that evening and exclaimed: 'This is the *batsetse*'s [heathen's = non-Lemba] moon, our moon has been seen in the pot'. The New Moon was a sign of cleanliness (an important cultural attribute achieved by hair-removal) as well as festivity and wisdom for the Lemba, who regard themselves as a wise people.

It was thought that those whose heads were not clean-shaven became foolish. The New Moon ritual was accompanied by various chants and songs. Le Roux (2005) was able to find a few Lemba in South Africa and Zimbabwe who were still aware of the described ceremony. Most Lemba currently only know that they should remove their hair every month when the New Moon is seen. Many Lemba continue to observe the custom of shaving their heads.

New-born babies and the Moon

A custom once observed by Africans throughout South Africa was that of showing a new-born baby to the Moon. The Tembe-Thonga in Maputaland (north eastern KwaZulu-Natal) apparently still adhere to the custom, after which the baby is taken down to the beach where a wave is allowed to wash over it (Koch, Cooper and Coetzee, 1990). The custom is known as *ukukhombisa inyanga*. Swazi, Zulu, other Tsonga, Northern Sotho, Southern Sotho, Tswana and Venda babies, likewise, were ceremonially shown to the Moon (new, waxing, full or unspecified as per the given source). This action was believed to be essential for the mental growth, development and health of the child, and heralded a new phase of life (Miller, 1979; Kuper, 1961; Hammond-Tooke, 1993; Breutz, 1969; Tyrrell and Jurgens, 1983; Mönnig, 1983; Junod, 1927). Breutz (1969), in discussing the Sotho-Tswana in general, noted that the presentation of a very young baby to the New Moon was an expression of the fertility symbolism of the Moon, since this celestial body was thought to have a positive influence on fertility. The Tswana of the Mafeking (now Mafikeng) district in North-West Province, interestingly, did not present a new-born child to the New Moon, although the women requested the help of the Moon while pregnant (Breutz, 1955). Tyrrell and Jurgens (1983) observed that a Venda infant, after its emergence from seclusion and until its first tooth appeared, must be held upside down and shown to the Moon once a month. Several taboos applicable before the child was shown to the Moon, amongst the various African groups, were thereafter no longer relevant.

It is instructive to briefly examine the described ceremony in a little more detail using the Tsonga (Ronga), Northern Sotho and Ndzundza Ndebele as examples. A Ronga child was usually shown to the New Moon in its third month of life (Junod, 1927). This ceremony, when the child was 'given his month', was known as *ku yandla*. On the day of the New Moon the mother took a burning stick, and accompanied by the grandmother who carried the child, went to the household ash-heap. The mother threw the stick towards the Moon while the grandmother tossed the baby into the air, exclaiming: 'There is your Moon!' The grandmother then put the child on the ash-heap where it cried and rolled over in the ashes. The mother picked the child up, nursed it, and returned to her hut. Any child not subject to this rite would grow up to be stupid. It was taboo for the mother to drink any milk from the time of the birth of the child until it had been presented to the Moon. Some Tsonga regarded twins as bad characters and they were generally disliked. Such twins were not shown to the Moon (Junod, 1927).

The Northern Sotho presented the child to the New Moon in its second month (Beyer, 1919). Plenty of light beer or *motogo* was prepared as soon as this Moon appeared in the sky. The older girls of the household called all the younger boys and girls together on the next evening after the Moon had been sighted. The assembly took the child and the beer

outside, although not too far away from the household. The girls carried hoes and the boys small bows and arrows. All then sat down. One of the girls picked up the child, turned it to the Moon and pointed, saying: 'Look there, that is your friend!' The girls prepared a small garden for the child, planting some mealies, beans or monkey-nuts (in summer). The boys played with their bows and arrows while the gardening procedure was undertaken. Once the girls had finished all sat down again to enjoy the light beer (Beyer, 1919). The Ndzundza Ndebele presented the baby to the first New Moon after its birth. As soon as the crescent appeared, the mother took the child outside and pointed to the Moon stating: 'There is your moon, there is your friend!' (Fourie, 1921; Kuper, 1978).

A lunar influence was also apparent for groups such as the Bhaca and Mfengu when a child was sickly or was not developing properly. Vertical incisions were made on the cheeks of the child during a ceremony held at Full Moon. The gall of a sacrificial goat was rubbed into the facial wounds (Tyrrell and Jurgens, 1983).

Lunar months in South Africa and adjacent localities

The vernacular names for the Moon itself, throughout South Africa, were synonymous with that for a month. Readers are reminded that each month began with the sighting of the New Moon. It was the Moon which largely defined the passage of time during the year via seasonal (botanical or zoological) indicators. Celestial indicators were also used for certain months (**see Chapter 5**). The Moon was widely invoked when a girl or woman had her monthly menstrual period (at intervals of a lunar month). The Venda for instance used the euphemistic expression, 'seeing the moon', for this bodily function (Blacking, 1998). Also of relevance is that the human gestation period is 10 lunar months from the last menstruation, which again links the passage of the Moon and human physiology.

There are three primary celestial means of measuring the passage of time. These are: (a) the day, (b) the lunar (synodic) month which extends from New Moon to New Moon, and (c) the tropical year which stretches from vernal equinox to vernal equinox. The vernal equinox can technically be defined as the point on the celestial sphere where the Sun crosses the celestial equator from south to north (i.e. the March equinox which marks the start of autumn in the southern hemisphere). The length of the tropical year is 365.2422 mean solar days. Difficulties occur since there are not an exact number of lunar months in a calendar year, with a calendar year encompassing approximately 12.4 lunar months. There are accordingly three choices to be made to determine time. The first is to adopt a *lunar calendar* which ignores the tropical year and constructs the year in terms of a whole number of lunar months. This method is used in the Islamic and Hebrew calendars. Farmers, in particular, will experience problems as a given season will begin at different times in each succeeding year. The second procedure is to make use of a *lunar-solar* or *luni-solar calendar*, where some years consist of 12 lunar months and other years have 13 lunar months. This was once the situation in Europe before the Roman Emperor Julius Caesar adjusted the calendar to create uniformity. A third choice is to adopt a *solar calendar* in which the lengths of the months vary slightly, with 12 months making a tropical year. The latter is known as the Gregorian calendar which is in use today. The Gregorian calendar year is equal to 365.2425 mean solar days. The Gregorian calendar can be taken to be equivalent to the tropical year, although there is a difference of 0.0003

mean solar days. This discrepancy, in practical reality, is of little significance except in the very long run (Clegg, 1986; Mack, 1996; Nicolson, 1977). It will become apparent in the discussion that the luni-solar calendar was applied by Africans in South Africa in the old days. A listing of new moons in South Africa for selected years (1830–1930) can be found in **Appendix A**. The purpose of the table is to illustrate the complexity of trying to correlate African months (moons) with a western-style calendar.

Zulu moons

Six versions of the Zulu moons or months are given below. The information was derived from Leslie (1875); Faye (1923); Samuelson (first edition: 1929; second impression: 1974); Rudolph (1948); Bryant (1949), and Webb and Wright (1982). The interpretation of the months is generally similar in the six variants, although the timing of the months differs somewhat. A popular account of several Zulu moons can be found in Ellis (2002). An overview analysis of the Zulu moons was compiled by Koopman (2002), extracts of which are outlined at the end of this section.

Version 1

Possibly the earliest written record of the 13 Zulu moons was provided by Leslie (1875). Leslie was a great believer in precision since he erroneously indicated the date when a specific Moon died (ended). It is possible that a particular year is being described, however. Leslie observed that there was often considerable argument concerning which Moon was to be seen at any one time. The names of the moons, using a very old orthography, are as follows:

- **First of spring (*Uncwaba*)**. The Moon ends about the 29th of August. The explanation for the name of the Moon is that when a man after a long journey washes and anoints himself with fat, he is then said to be *ncwabile* (i.e. 'he shines, is clean, puts on a new appearance'). The Earth in a similar manner puts on a new coat in spring, after the dusty and dry conditions of winter. *Uncwaba* is derived from 'shines' or *ncwabile*. The Zulu, according to Leslie, allowed four months for spring. The Zulu did not believe that summer had arrived until they had cut the green mealies of the first crop, which was generally done about the end of November. The cutting of these mealies occurred at different times in different districts.

- **Spring (*Umandula*)**. This Moon ends around the 29th of September. *Wandula* refers to one man striking another, before the first man (the victim) is aware of the intentions of the assailant. It is then said '*Wamandula*' (he *andula*-ed him). Thunderstorms are not expected in this month. If thunderstorms do occur then they *andula*, hence *Umandula*.

- **Spring (*Umfuntu*)**. The Moon ends about the 27th of October. It is during such a Moon that the young mealies are said to be *Umfunfusa*. This word refers to the fact that the mealies have grown so much that they hide the ground. The mealies will have to be 'cleaned' when the following Moon appears: hence *Umfuntu-umfunfusa*, which is a word applied only to the growth of mealies or corn.

- **Spring (*Ulweze*)**. This Moon ends around the 24th of November. The Moon is named after a small insect which Leslie states is 'something like the cicada'. The insect

adheres to the branch of a tree and releases (poisonous) water drop by drop from its body, until the ground below is quite wet. The insect commences these activities in this month.

- **Summer (*Usibanhlela*)**. The Moon ends about the 22nd of December. The name means the 'Hider of Paths', since the grass has grown so long that the paths are obscured, and a man has to feel for the path with his feet.

- **Summer (*Umasingana*)**. This Moon ends around the 19th of January. *Singa* means 'to shade the eyes with the hand'. It is in this month that the hives of bees 'begin to get fat' and are sought for. In the afternoon when the Sun is low on the horizon the people go out, and shading their eyes with a hand, look towards the sunset to see the bees flying around. The people watch the flight pattern of the bees to discover the locality of their hives. The eyes are thus shaded from the Sun, and the Sun from the eyes.

- **Summer (*Uandasa*)**. The Moon ends about the 16th of February. *Anda* means 'to increase and multiply'. The first crops have ripened and food has become plentiful (*andile*). It is now the *Uandasa* Moon, i.e. the result of plenty.

- **Autumn (*Umhlolanga*)**. This Moon ends around the 16th of March. *Umhlolo* is 'a wonder, something out of the common, or some act or event which is repulsive, or causes loathing'. *Inga* means a 'dog'. *Umhlolanga* therefore refers to 'the loathsome act of the dogs', namely copulation.

- **Autumn (*Umbasu*)**. The Moon ends about the 11th of April. The name of the month is 'Causer of Fire'. It begins to get cold now and the people cannot do without fires.

- **Autumn (*Umhlaba*)**. This Moon ends around the 9th of May. It is in this month that the red flower of the aloe (*Umhlaba*) is seen, hence the 'Moon of the Aloes'.

- **Winter (*Unhlangulana*)**. The Moon ends about the 6th of June. Reference is made here to the thornveld country, mainly in terms of the foliage of different species of acacia trees, which according to Leslie 'dries and falls off' at this time. Creepers of various kinds do likewise while the bushes 'become more open'. The trees, creepers and bushes are said to '*Hlangula*'. The addition of the *na* indicates the diminutive, hence *Unhlangulana* or the lesser Moon of *Hlangula*. The last-mentioned word means to 'brush off' (Dent and Nyembezi, 1979).

- **Winter (*Unhlangula*)**. This Moon ends around the 4th of July. The explanation for the previous Moon is applicable here, although without the diminutive. The Moon is seen when the bush is as open as it will ever be.

- **Winter (*Umaquba*)**. The Moon ends about the 1st of August. *Quba* means 'to drive', although the word also has other connotations. This Moon is the last of the winter months when the whole country is extremely dry. It is at this stage of the year that strong, hot winds are very evident. Dust is driven (blown) around by the winds, hence *Umaquba* or the 'Driver' (Leslie, 1875).

A list of the names of the months as per Leslie (1875), but using more current Zulu orthography can be found in Webb and Wright (2001). The list is as follows: *Ncwaba; Mandulo; Mfumfu; Lwezi; Zibandhlela; Masingana; Ndasa; Nhlolanja; Mbasa; Nhlaba; Nhlangulana, Nhlangula* and *Maquba*. It should be explained that Webb and Wright edited and translated the handwritten notebooks of a renowned Zulu linguist, James Stuart, who assembled a considerable array of unprocessed information. Stuart interviewed many Zulu men in the 1890s and the early part of the 20th century; and in so-doing bequeathed a most valuable record of Zulu history and customs. These documents were collated by Webb and Wright, and have appeared in five volumes to-date (1976–2001). Stuart, in this particular instance, copied the names of the months from Leslie (1875), although Stuart also derived his own data on the subject from certain Zulu informants.

Version 2

The Zulu year was divided into 13 lunar months. Each month, consisting of 28 days, reflects the agricultural and environmental circumstances prevailing at that stage (Krige, 1950). Faye (1923) observed that the seasons *per se* were not always identically the same every year. Delayed spring rains or droughts, for example, could result in the historical Zulu moons 'being out of step' with the actual growth of the crops (N.A. Otte). To complicate matters still further, the growing period depends on the local climate (i.e. the foothills of the KwaZulu-Natal Drakensberg versus the coastal regions of southern Zululand).

Faye (1923) provided information, firstly, on the names of the lunar months in terms of the large geographic area of Natal and Zululand. A somewhat different terminology, which reflects Thonga (Tsonga) and Swazi influences, applies in northern Zululand. This northern region was identified by Faye as the 'Mkuze Area' (now spelt as Mkhuze). Faye listed the lunar data in alphabetical rather than chronological order. Virtually no explanatory details were supplied by Faye. The information set out below is an attempt by the current author to arrange the two sets of moons in a broad chronological sequence. No claims are made that the sequence is necessarily correct. Known seasonal events such as rainfall patterns and Berg winds were taken into account. The Natal and Zululand moons have been divided into four categories, purely for the sake of convenience, by the present author.

It is quite possible that the Natal and Zululand moons identified by Faye (1923) were derived in several altitudinal regimes, and were then combined into one seemingly comprehensive register with alternative names for selected moons. The reference to people lighting fires to warm themselves in March for instance, suggests (a) a high altitude locality such as the foothills and lower slopes of the Drakensberg, or (b) that incorrect lunar data were relayed to Faye, or were perhaps misinterpreted by him. A very likely scenario (and one accepted here) is that 'winter' in this context actually refers to autumn. It is put forward that Faye was indeed confused by the correct sequence of the moons, or the different names for the same moons, and avoided the problem by recording the data in an alphabetical format. The number of moons identified by Faye (1923) for Natal and Zululand and the Mkuze Area respectively, tends to support this conjecture. There are fewer moons for the latter, smaller geographic area, which implies more accurate data collection. The Zulu year opens with the primary agricultural tasks of the new season, following winter. Note that *a*(*mabele*) refers to sorghum.

Natal and Zululand

Moons of the early season

- **The Moon When the *uNtloyile* (Yellow Billed Kite) Snatches the *Udumba* (*uNtloyile*)** [in August]. The Yellow-billed Kite or Geelbekwou (previously *Milvus aegyptius*, now: *Milvus migrans parasitus*) gives its Zulu name to the associated Moon. This particular kite is widely distributed in southern Africa and is a breeding summer visitor (Sinclair and Hockey, 1996). The bird arrives back in KwaZulu-Natal in August, usually early in the month (Bennett, 1995). The *udumba* was described by Faye as a small black bean, evidently the Cow Pea/Bachapin Bean or Boontjie/Koertjie (*Vigna unguiculata*) Zulu = *imbumba; indumba* or *isihlumaya* (Fox and Norwood Young, 1983). The avian description is unclear since the bird is a predator and eats flesh and carrion. The bird has a bad reputation in Central Africa as a daring thief (McLachlan and Liversidge, 1978). One interpretation is that this Moon resembles a kite as it glides in the 'crystal-thin blue sky' (Ellis, 2002). It is more likely, however, that the Moon represents a state of renewal (a seasonal marker for spring) in the endless cycle of nature. A Zulu explanation for the disappearance of the Yellow-billed Kite in winter is that the bird gathers together as much food as it can in summer. The bird stores the food in a nest in the crevice of a cliff. When winter comes, the bird flies to the cliff where it remains for some months. During this time the kite sheds all its plumage before growing a new set of feathers. The bird then returns to its old haunts (N.A. Otte). The bird itself has the praise name of *uNhloyile kaGelegele* meaning 'kite, son of the whirlwind' (Koopman, 2002). It is entirely possible that the praise name refers to strong Berg winds in August. A lesser possibility is that the praise name may have relevance to the mode of flight of the bird. The bird, while on the wing, has a 'distinctive habit of steering with its tail' (McLachlan and Liversidge, 1978). The forked tail is twisted from side to side as the bird changes direction. The bird usually sails down and snatches scraps of food or its prey in its claws, and eats while gliding overhead (Roberts, 1942). The Xhosa, interestingly, have much the same explanation as the Zulu for the absence of the bird in winter (Godfrey, 1941). The bird is said by the Xhosa to retire to a safe place amongst rocks or a cliff, where it has deliberately deposited food in the form of chickens stolen from Xhosa households. The bird undergoes a complete moult, and consumes the chickens in its time of helplessness when it has no feathers. An old Afrikaans common name for the bird, according to Roberts (1942), was *kuikendief* or 'chicken thief'. A high wind arises on the day that the kite leaves its winter quarters and the countryside is full of dust (Godfrey, 1941).

- **The Moon When the Land's Taken on a Rich Dark Green Hue (*uNcwaba*)**. The first lunar month of August (August–September) i.e. around the time of the first spring rains. A correction by Faye is that instead of … **the Land's Taken** … one should read … **the Land Has Taken** …

- **The Moon of the Stinging Hot Sun, When Hoeing is Begun in the Fields (*uMandulo*)** [September].

- **The Moon When the Hoes are Taken, for Hoeing and Delving in the Fields (*uMpandu*, later known as *uMandulo*)** [September]. Under the *hlonipa* custom (one

of respect), the name *uMpandu* was dropped in the time of the Zulu king, Mpande. The name *uMandulo* was accordingly substituted for the previous name of the Moon.

- **A Summer Moon, When the Growing Mealies and *Mabele* are Beginning 'to Rise' (*uMfumfu*)** [October, when growth is clearly visible].

Mid-season moons

- **The Moon When Summer Has Come and She Hides the Paths (*uZibandlela*)** [November–December]. This is the time when the luxurious summer growth of the veld grasses overhangs and obscures the narrow footpaths.

- **The Moon When the People 'Beg of the Crops', Before the Feast of the First Fruits (*uNgcela*)**. The lunar month starting in December. Picking any produce was prohibited prior to the Feast of the First Fruits.

- **The Moon When People Look Searchingly Below the Bearing Pumpkin Vines (*uMasingana*)** [December–January]. The people look to see what can be picked to make spinach (using pumpkin leaves and the tender young shoots).

- **The Moon When the Fields are Visited in Search of Food (*uNtlolanja*)**. The lunar month of January. Apparently used as an excuse to visit the gardens when, due to custom, it was forbidden to reap any crops before the Feast of the First Fruits.

- **The Moon When Folks are Weary of Green Mealies, in (the Height of) Summer, and They Shy Mealies at One Another (*uNdasa*)** [February]. A time when food is plentiful and can be wasted by throwing mealies in mock fights. This obviously refers to good yields following plentiful rains.

- **The Moon When the Cattle Become Satiated, and Want to Lie Down When Being Driven Home for the Night (*uNgulazibuya*)** [probably early March]. Suggests a time when the grass is long and highly nutritious. The cattle 'appear to be sick' as they return home. This Moon seemingly refers to the fact that the cows were in excellent condition, and had difficulty in walking as a result of their heavy, milk-filled udders. Note that Faye in his personal copy of his book crossed out the above explanation for the *uNgulazibuya* Moon, and inserted the following handwritten correction: **The Moon When Threshing Places are Being Prepared for Use**.

Late season moons

- **The Moon That Prompts People to Make Fires, to Warm Themselves (*uMbasa* or *uMbaso*)** [March]. Roughly speaking the beginning of 'winter', i.e. autumn.

- **The Moon When the Aloe Blooms (*uNtlaba*)**. The lunar month of April–May. The name of this lunar month (*uNtlaba*) is derived from *iNhlaba* which is the Zulu name for the Mountain Aloe or Bergaalwyn (*Aloe marlothii* subsp. *marlothii = A. spectabilis*) (Pooley, 1993). This 2–5 m tall single-stemmed aloe grows on rocky slopes and in the bushveld, producing yellow-orange flowers (or scarlet flowers in some northern areas of KwaZulu-Natal). The plant flowers from May–July.

- **The Moon When the Trees Begin to Shed Their Leaves (*uNtlangulana*)**. The lunar month of June–July.

- **The Moon When the Trees are Bare, Having Shed Their Leaves (*uNtlangula*)**. The lunar month of July (July–August).

- **The Moon That Starts Dust (*uLutudlana*)** (*Luthudlana*) or *uLutuyana* (also *Luthayana* which was corrected by Faye to read *Luth**u**yana*). The Lesser Dust Driving Moon (*uMaqub'omncane*).

- **The Moon With Much Dust (*uLutuli*)** (*Luthuli*) and equivalent names:
  - The Dust Driving Moon (*uMaqub'izintuli*);
  - The Greater Dust Driving Moon (*uMaquab'omkulu*);
  - Great Dust Moon (*uNtulikazi*);
  - Dust and Dust Moon (*uNtulini*);
  - The Moon When the Land's Brown-bare (*uMpofu*), around the lunar month of July (July–August).

- **The Windy-windy Moon, Which Carries Away Everything, Including Fire Through the Grass (*uZibhebhu*)**. The grass is dry and veld fires are likely. This suggests strong Berg winds which are characteristic of late winter and spring.

- **The Moon That Divides the Year, Summer and Winter, When Winter's O'er and Summer's Come (*uNtlukanisa*)**. A midway point, which is probably during late winter. At this stage winter is virtually over and summer is imminent.

A puzzling Moon

- **The Confusing Moon, When People Dispute Which It Is (*uNdida*)**. The *uNdida* Moon, according to Bryant (1949), caused considerable confusion. Elderly men, not only amongst the Zulu, spent many hours debating when and whether to insert the 13th Moon in the annual calendar. Medupe (2005) discussed the general southern African concept of a 13th Moon to cater for 'missing days' based on a lunar calendar of 29½ days for each month. There is a slight divergence of opinion here with regard to Krige (1950). Given the difference between the solar and lunar reckoning of a year, it is apparent that there is some discrepancy in the number of days in a year, as calculated by the Moon. Medupe (2005) observed that a year in historical African time actually consisted of 354 days (29½ days × 12 months), a point confirmed by Stayt (1931) for the Venda. There is accordingly a shortfall of 11 days. This disparity would not be noticed in any one year, but would be clearly evident after say, three years, when there would be a difference between events in nature (the growth of crops) and the associated Moon. An extra month was periodically agreed upon to cater for this problem. Some years had 12 months, while others had 13 months. The Venda regularly inserted a 13th Moon every third year (Stayt, 1931). (The correction is thus 11 days × 3.) Adjustments for the length of a year are, of course, not unique and occur in the modern Gregorian calendar with a leap day on the 29th of February.

The Mkuze Area

There is an emphasis on spring and summer names involving insects, birds and wild animals. Some of the larger animals only give birth when conditions are favourable (i.e. not necessarily at the same time every year) (J. Huntly). There is much less certainty regarding the chronological sequence of the Mkuze moons.

- **The Moon of the Morning Star (*iNkwekwezi*)** (*Nkwekhwezi*) or *iNkwenkwezi*. According to Krige (1950), the Zulu name *inKwenkwezi* refers to a conspicuous star in the constellation of Argo (i.e. Canopus) (**see Chapter 5**). The Morning Star proper, is Venus.

- **The Moon of the Appearance of the Pleiades (*iSilimela* or *isiLimela*)**. This open star cluster rises in the lunar month of June–July. The reappearance of the Pleiades marks the season when agricultural activities begin (Krige, 1950).

- **The Moon When the Large *uMganu* Trees Bud (*uMgan'omkulu* or *uMganu*)** [spring]. This Moon refers to the Marula or Maroela (Zulu = *umGanu*), namely: *Sclerocarya birrea* subsp. *caffra* (= *S. caffra*), which is a medium-sized deciduous tree found *inter alia* in the hot north eastern parts of KwaZulu-Natal (Palmer, 1981; Pooley, 1993). Only one species grows in South Africa. The tree typically attains a height of up to 9 m, and flowers in September–November.

- **The Moon When the Small *uMganu* Trees Bud (*uMganywana*)** [spring]. An equivalent name is *iSiganywana*. A possibility in this regard is that of the False Marula or Bastermaroela (*Lannea schweinfurthii* var. *stuhlmannii* = *L. stuhlmannii*) Zulu = *umGanunkomo*, which flowers in October–December. This small to medium-sized deciduous tree grows in the same habitat as *Sclerocarya birrea* subsp. *caffra*, and superficially resembles the latter tree (Pooley, 1993). The bark, leaves, fruit and shape of the crown, however, are quite different.

- **The Moon When the Yellow-billed Kite Lays Its Eggs (*uKolo*)** (*Kholo*) and equivalent names:
  - *uNtloyile*;
  - *uNtloyiya*;
  - *uNtloyiye*. The peak egg-laying months for the Yellow-billed Kite in KwaZulu-Natal, as per Mendelsohn (1997), are September and October.

- **The Moon When the Flying Ants Come Out of the Ant Heaps (*iNqumati*)** (*Nqumathi*). This description presumably refers to the first appearance of these winged termite alates or reproductives in October. The reproductives (males and females) only emerge after a spell of rain. Equivalent names are:
  - *iNganga* (the African Stink Ant ['Stinkman'] or Stinkmier of the bushveld, namely, *Pachycondyla tarsata*);
  - *iSiduli* or *iSidulu* (an ant heap or mound).

  A degree of contemporary confirmation for the emergence of termite alates in October in KwaZulu-Natal was provided by a Pietermaritzburg observer, resident in the wetter,

northern side of the city. The observer found that the first dates for the appearance of termite alates in his area varied from the 28th of September to the 18th of November in the period 1989–2007. All other sightings, with the one stated exception, occurred in October or November (C. Mackenzie).

- **The Moon When the Wild Pig Litters Down (*iNgulube*)** [October–February]. The animal is the Bushpig or Bosvark (formerly *Potamochoerus porcus*, now: *P. larvatus*).

- **The Moon When the *iMpala* Calves (*iMpala*)** [late November–early December]. This animal is the Impala or Rooibok (*Aepyceros melampus*).

- **The Moon When the Wildebeste Calves (*iNkonkoni*)**. The Moon of the Great Feast of the First Fruits [January]. The animal in question is the Blue Wildebeest or Blouwildebees (*Connochaetes taurinus*).

- **The Moon When the Buffalo Calves (*iNyati*)** (*Nyathi*) [possibly February]. The animal is the Buffalo or Buffel (*Syncerus caffer*).

- **The Moon When the Buffaloes Suckle Their Calves (*iMpuso* or *uMpuso*)** (*Mphuso*) [later in summer].

- **The Moon When the Elephant Calves (*iNdlovu*)** [unknown since elephants are not seasonal breeders, but evidently summer]. The animal referred to is the African Elephant or Afrikaanse Olifant (*Loxodonta africana*).

- **The Moon of Plenty, When People Get Drunk and the Food Over the Fires is Neglected and Gets Burnt, and No One Cares (*uTyelabani* or *uTyenabani*)**. In mid-to-late summer, probably February. The name literally means 'Whom-do-you-tell' [that the food is burning].

- **The Moon When the Cold Weather Has Begun, and We Make Fires (to warm ourselves) (*uMabasa*; *uMabas'endleni*, *uMbasa* or *uMbaso*)** [March].

- **The Moon When the Aloe Flowers (*uNtlaba*)**. The lunar month of April–May. Also refers to a rare Moon known as *uMhlaba*. It is not clear why Faye listed *uMhlaba* as a rare Moon, while indicating that it was the same as the *uNtlaba* Moon. It is not impossible that the *uMhlaba* Moon may be the 13th Moon as explained above. The rare Moon may also refer to a calendar month which has two full moons. The second Moon could be the Moon in question. The very rare calendar year which has *two* double full moons could also be invoked. This, however, is pure speculation.

- **The Moon of the End of the Year, When Everything is Utterly Bare (*iZe*)** [late winter] (Faye, 1923).

Version 3

The information from Samuelson (first edition: 1929; second impression: 1974) has been taken unchanged, including certain inconsistencies in spelling and capitalization. The Zulu months begin with July. Thirteen moons are specified.

- ***Uncwaba* (July)**. *Ncwaba* refers to the new growth commencing when the Moon is first seen.

- ***Umpandu*** or ***uMandulo* (August)**. *Mandulo* was modified from *Mpandu* (under the *hlonipha* system) to avoid the letters *MP* which constitute the beginning of the name of the Zulu king, Mpande. *Mpandu* relates to *Panda* meaning 'to scratch up the soil' for planting purposes.

- ***Umfumfu* (September)**. *Mfumfu* refers to the hidden flowers of the grasses, which are preparing 'to peep out of their sheaths'. *Imfumfu* means 'anything hidden and inscrutable'.

- ***Ulwezi* (October)**. *Lwezi* relates to *Lweza* or to drip down 'in a slimy manner as castor oil'. The term is applied to the frothy spittle dripping down from certain tree insects. The reference here is evidently to clusters of nymphs and adults of the Rain-tree Bug/ Tipuana Spittle Bug or Reënboom Skuimbesie/Tipuana Skuimbesie (*Ptyelus grossus*), which parasitize various indigenous and exotic trees (Picker et al., 2004). The insects cover themselves in a defensive foamy secretion derived from the tree sap which drips down forming small puddles on the ground. These secretions, known by some as 'cuckoo spit', may also prevent the insects from drying out.

- ***Uzibandhlela* (November)**. *Zibandhlela* refers to the covering over of roads by grasses and weeds, and is derived from *Ziba* or 'to pretend' and *Indhlela* or 'a road'.

- ***Umasingana* (December)**. *Masingana* is derived from *singa* or 'to search about for'. The women look around to see how advanced their pumpkin tendrils are, so that they can nip the ends to induce the plants to produce more fruit.

- ***Unhlolanja* (January)**. *Nhlolanja* relates to *Hlola* or 'investigate' and *Inja* or 'a dog'. Dogs copulate at this time and their owners investigate to see which dogs they copulated with. [The inference could be to hunting dogs. A good hunting dog was highly prized.]

- ***Undasa*** or ***Ungcela* (February)**. *Ndasa* relates to *Dasa* or 'to be satisfied with'. The new crops are so plentiful that the people can eat to their satisfaction. *Ngcela* (derived from *Cela* or 'to ask') refers to the fact that there is then so much food, that one only has to ask for some and it will be given.

- ***Umbasa* (March)**. *Mbasa* derived from *Basa* means 'to kindle a fire'. The cold of winter begins at this time and fires are started to provide warmth.

- ***Unhlaba* (April)**. *Nhlaba* refers to the aloe (*Inhlaba*) which begins to bloom.

- ***Unhlangula* (May)**. *Nhlangula* derived from *Hlangula* or 'to dust off' or 'drive off' encapsulates the effect of the wind on the leaves of trees.

- ***Umaquba omncane*** or ***uLutuyana* (June)**. *Maquba Omncane* is 'the little *Maquba*' and is derived from *Qubula* since the dust is raised by the winds. *Qubula* means – 'to

raise' (*Uthuli* understood) – *Lutuyana* 'the small dust', which is the diminutive of *Uthuli* or 'dust'.

- ***Umaquba omkulu*, *Untulikazi*** or ***Undida*** **(July)**. *Umaquba Omkhulu* means 'the great dust raiser' and *Untulikazi* 'the great dust'. *Ndida* relates to 'the puzzler' from *Dida* 'to puzzle'. The latter describes the differences of opinion regarding which Moon is commencing: that of *Ncwaba* or *Ntulikazi* (Samuelson, first edition: 1929; second impression: 1974).

Version 4

The following Zulu lunar months were derived from Rudolph (1948) who reproduced data from Doke (1945); Molefe and Masondo (1938), and Lamula (1936). The calendar commences in July. Thirteen moons are listed.

- ***uncwaba*** also called ***Unhloyile***. The month when the kites (birds) appear. Also the month when the grass is green. This month begins about the middle of July (Doke, 1945). The equivalent is *uncwaba* or June (Molefe and Masondo, 1938); and *uncwaba* or August (Lamula, 1936).

- ***umandulo*** is used as the *hlonipha* form for ***Umpandu***, also known as ***Isokanqangi***. The month when the first gardens appear. This month starts towards the middle of August (Doke, 1945). The equivalent is *umandulo* or July (Molefe and Masondo, 1938); and *umandulo* or September (Lamula, 1936).

- ***umfumfu***. The month when the new shoots show. This month begins early in September (Doke, 1945). The equivalent is *umfumfu* or August (Molefe and Masondo, 1938); and *umfumfu* or October (Lamula, 1936).

- ***ulwezi***. The month when the grasshopper larvae appear on the grass. This month starts early in October (Doke, 1945). The equivalent is *uzibandlela* or September (Molefe and Masondo, 1938); and *ulwezi* or November (Lamula, 1936).

- ***uzibandlela*** also called ***Udlolo***. The month when the paths are overgrown. This month commences very early in November (Doke, 1945). The equivalent is *umasingana* or October (Molefe and Masondo, 1938); and *uzibandlela* or December (Lamula, 1936).

- ***umasingana*** also known as ***Ungcela***. The month for looking after the pumpkins. This month starts at the beginning of December (Doke, 1945). The equivalent is *ulwezi* or November (Molefe and Masondo, 1938); and *umasingana* or January (Lamula, 1936).

- ***unhlolanja***. The month of the mating of dogs. This month starts at the beginning of January (Doke, 1945). The equivalent is *ungcela* or December (Molefe and Masondo, 1938); and *unhlolanja* or February (Lamula, 1936).

- ***undasa***. The month of abundance of the new mealies. This month starts at the very beginning of February (Doke, 1945). The equivalent is *undasa* or January (Molefe and Masondo, 1938); and *undasa* or March (Lamula, 1936).

- ***umbasa*** also called ***Umbaso***. The winter fires are first lit. This month begins at the end of February (Doke, 1945). The equivalent is *umbaso* or February (Molefe and Masondo, 1938); and *umbaso* or April (Lamula, 1936).

- ***ungulazibuya*** also known as ***Undida***. This month commences towards the end of March (Doke, 1945). The equivalent is *unhlaba* or March (Molefe and Masondo, 1938); and *unhlaba* or May (Lamula, 1936).

- ***unhlaba***. The month of the aloe flowers. This month begins late in April (Doke, 1945). The equivalent is *unhlangula* or April (Molefe and Masondo, 1938); and *unhlangula* (*Unhlangulana*) or June (Lamula, 1936).

- ***unhlangulana*** also called ***Uluthudlana*** or ***Umaquba omncane***. The month of the early winds. This month starts about the middle of May (Doke, 1945). The equivalent is *umaquba* or May (Molefe and Masondo, 1938); and *untulikazi* (*Umaquba* or *Unhlangula*) or July (Lamula, 1936).

- ***umaquba*** also known as ***Untulini*****;** ***Umpofu*****;** ***Untulikazi*****,** ***Uluthuli*** or ***Unhlangula***. The month of dust blowing. This month commences in mid-June (Doke, 1945). No equivalent terms for the month are given in Rudolph (1948).

Version 5

Bryant (1949) using an older orthography gives the following names of the Zulu moons, beginning with July–August. Bryant (1949) listed 13 moons.

- ***nNcwaba*** **(July–August)**. The New-Grass-Moon.

- ***nMandulo*** **(August–September)**. The First-Fields-Moon, from *ukwAndula* or 'to-start-cultivating'.

- ***uMfumfu*** **(September–October)**. The Sprouting-Moon, from *ukuFúmfusa* or 'to-bud or sprout'.

- ***uLwezi*** **(October–November)**. The Frog-Hopper-Moon, based on *ulwEzi* or 'frog-hopper-larva'. Another name is *uZibandela* or The Overgrown-Paths-Moon, based on *ukuZiba* 'to cover-up' and *iNdlela* meaning 'path'. [Binns (1974) indicates that no ceremony whatsoever took place during this Moon, except when serious drought threatened the land.]

- ***uMasingana*** **(November–December)**. The Searching-About-Moon. It was at this time that women searched the gardens for the new pumpkins. The name is based on *ukuSinga* and *ukuCinga* meaning 'to-look-for'.

- ***uNtlolanja*** **(December–January)**. The Dog-Copulating-Moon, derived from *ukuHlola* or 'to-inspect' and *iNja* or 'dog'.

- ***uNdasa*** **(January–February)**. The Food-Abundance-Moon.

- ***uMbasa* (February–March)**. The Fire-Kindling-Moon, signifying the approach of winter. The name is derived from *ukuBasa* or 'to-kindle-fire'.

- ***uNgúla-zibuya* (March–April)**. The Threshing-Ground-Preparing-Moon, based on *ukwEngula* 'to-remove-the-surface-scum' or soil, and *isiBuya* 'a-threshing-ground'.

- ***uNtlaba* (April–May)**. The Aloe-Flowering-Moon, from *iNtlaba* or 'aloe-plant'.

- ***uLutúdlana* (May–June)**. The Little-Dust-Moon, from *uluTúli* or 'dust'. A further name is *uNtlangulana* or The Little-Rubbish-Sweeping-Moon which is based on *ukuHlangula* meaning 'to-sweep-off'.

- ***uNtulikazi* (June–July)**. The Big-Dust-Moon, from *uluTúli* or 'dust' and *-kazi* or 'great'. A different name is *uMaquba* or The Dust-Raising-Moon, from *ukuQuba* 'to-raise-dust'.

Bryant (1949) observed that it was impossible to make 12 moons fit into a 13-Moon solar year. The Zulu thus became 'perplexed' (*ukuDida*) once a year, usually around April. The *uNgúla-zibuya* Moon was a constant source of argument for the older men, who nicknamed this troublesome month *uNdid'-amaDoda* or The Men-Puzzling-Moon (derived from *ukuDida* 'to perplex' and *amaDoda* or 'men').

Webb and Wright (2001) reproduced a list of months provided by James Stuart in his notebooks. Stuart took the names from Bryant, presumably Bryant's Zulu-English Dictionary, which was published in 1905. The months with a slightly different spelling as per Webb and Wright are as follows:

- **Ncwaba** (middle of July).
- **Mpandu** or **Mandulo** (middle of August).
- **Mfumfu** (middle of September).
- **Zibandhlela** (middle of October).
- **Ngcela** = **Masingana** (middle of November). Stuart in Webb and Wright (2001) indicates that this term is incorrect, and that the name should refer to January.
- **Nhlolanja** (middle of December).
- **Ndasa** (middle of January).
- **Nhlaba** (**uLutudhlana; Little Maquba**) (middle of April).
- **Nhlangulana** (**uNtulini; uNtulikazi; uMpofu; uLutuli; uNhlangula**) (middle of May).
- **Maquba** (middle of June).

Version 6

The following 12-month lunar variant was provided by Webb and Wright (1982) who did not list the equivalent western months. The two Zulu informants interviewed by Stuart were Mkando and Dhlozi.

- ***uNcwaba***. When the grass sprouts and the land is good. Brownness disappears and the land looks fresh (*ncwaba*).

- ***uMpandu*** or ***uMandulo***. When the *amabele* are planted. The second name was given to show respect to Mpande.

- ***uMfumfu***. When the young maize plants are sprouting (*fumfusa*); and when the flower is beginning to form.

- ***uLwezi***. When the *ulwezi* larva drops from the trees.

- ***uZibandhlela***. When the path (*indhlela*) cannot be seen because it [the path] is overgrown.

- ***uMasingana*** or ***uNhlolanja***. When the people look for (*singa*) the pumpkins.

- ***uNgcela*** or ***uNgcela-mkwekazi***. When a man's mother-in-law goes to visit her married daughter to ask for (*cela*) maize. The mother-in-law does so because she sees that people are now eating new maize.

- ***uNdasa***. When people have plenty to eat and children leave maize cobs to burn on the hearth; when maize is plentiful.

- ***uMbasa***. When fires are lit (*basa*).

- ***uNhlaba***. When the aloe (*inhlaba*) which grows amongst the *amabele* is stabbed at; when there grows the aloe which is gathered by the boys. It is said: 'I am going to pick the *inhlaba* (or *umhlaba*)'. The name of the month is derived from the aloe.

- ***Little uluTuli*** or ***Little uNhlangula***. The one which sweeps up (*hlangula*) the leaves of the trees.

- ***Great uluTuli*** or ***Great uNhlangula*** or ***uMaquba***. When all the twigs are shaken off; when dust (*utuli*) is raised (*quba*).

There was always a dispute amongst the Zulu regarding the exact ending of the old year and the beginning of the new year. The deciding point, according to Mkando, was the first rising of the Pleiades (*isilimela*) (**see Chapter 5**). Other Zulu referred to the timing of the solstices. Some Zulu thought that terrestrial nature was the appropriate guide, either via the budding of certain plants (Mkando), or the appearance and behaviour of the *ukolo* or Yellow-billed Kite or Geelbekwou (*Milvus migrans parasitus*) (Ndukwana: a further Zulu informant). This bird was seen when the *Great uluTuli* or *Great uNhlangula* or *uMaquba* lunar month was nearly over. The bird, after appearing, would then vanish again. The bird went into the trees, lived on food it had previously gathered together, and moulted its feathers. The bird emerged once more when the grass was being burnt and caught grasshoppers which flew into the air in the smoke. (This event occurred in the lunar month of *uNcwaba*.) There was no longer any dispute about the new year once the *ukolo* had been sighted.

The budding of plants, as stated, was also a sign that the new year had begun. Relevant plants included the Common Coral Tree or Gewone Koraalboom (*Erythrina lysistemon*) or the Coast Coral Tree or Kuskoraalboom (*Erythrina caffra*), both of which are known by the Zulu as *umSinsi*. A further indicator was seemingly the Common Cabbage Tree or Gewone Kiepersol (*Cussonia spicata*) Zulu = *umSenge* or another species of this tree which also has the same Zulu name. Likewise of significance was the *umkiwane* [*umKhiwane*] which probably refers to the Broom Cluster Fig/Cape Fig or Besemtrosvy (*Ficus sur = F. capensis*); and a medicinal plant (a shrub) known as *iboza* or *ibozane*. The latter is evidently the Misty Plume Bush/Ginger Bush or Gemmerbos/Watersalie (*Tetradenia riparia*). [Botanical details obtained from Pooley (1993) and Internet sources.]

It was the custom that boys were not allowed to stand right over the hearth in summer when people were cultivating and when the pumpkins were sprouting (Webb and Wright, 1982). The boys, had they done so, would have prevented the pumpkins from 'shooting out properly', i.e. the pumpkins would then resemble the small testicles of the boys. Mothers ensured that their boys moved away from the hearth at once and sat down on the ground (Webb and Wright, 1982).

Webb and Wright (1986) provided additional data on the names of the months as per Stuart's Zulu informant Ndukwana (see immediately below). The names are according to Webb and Wright, although beginning with *uNcwaba* rather than *Masingana* (as in the original text). Somewhat confusing is the statement by Ndukwana that there are 12 Zulu moons, although he gives details of 13 moons. A most telling point is the admission by Ndukwana that the duration of an extended event was marked by the *passage* of a number of moons, and not by the *actual names* of the moons. Time was divided into days and months, for instance, so many days after New Moon, so many days before Full Moon, and so many days after Full Moon. Those Zulu who cultivated the crops and who undertook other agricultural tasks knew the names of the months far better than anyone else. (Ndukwana is actually referring mainly to the women here.)

A second important point was made by Ngidi (alias Magambukazi cited in Webb and Wright, 2001) who indicated that it was once necessary to know exactly in which month the Feast of the First Fruits was to be held, since no one could eat the new season's crops before the king had done so. Observation of the relevant Moon had ceased amongst some Zulu by 1905 (the date of Ngidi's interview with Stuart). The result, which will come as no surprise to the reader, was that there was then a great deal of confusion and debate regarding the names of the lunar months.

uNcwaba.

uMandulo.

uMfumfu.

uLwezi.

uZibandhlela.

uMpangazana (evidently the 13th Moon).

Masingana (the time of the *umkosi* [*umKhosi*] ceremony).

Nhlolanja.

uNdasa or **uNdaza**.

Mbasa.

uNhlaba.

Little uNhlangula or **Great uNhlangula** (a disputed name of the month). The *uNhlangula* which strips the trees of their leaves.

Maquba or **Great uLutuli**.

Ndukwana (cited in Webb and Wright, 1986) gave additional examples of contested months. Some Zulu referred to the month of ***Masingana*** as *Nhlolanja*. Ndukwana maintained (a) that *Nhlolanja* follows *Masingana*, and (b) that *Nhlolanja* was the same month as *Ngcela*. Ndukwana stated that it was not common to speak of this month as *Ngcela*; it was *uNhlolanja*, the time when dogs went from homestead to homestead sniffing (*hlolaing*) one another and copulating (*pingaing*).

There was also a dispute, as indicated above, regarding the ***uNhlangula*** and ***Little uNhlangula*** months. Certain Zulu stated that there was a *Little uNhlangula*, while others were of the opinion that there was only the *Great uNhlangula*. Some Zulu, in turn, said that there was a *Little uLutuli*, which was followed by the *Great uLutuli*, with the latter ending when *uNcwaba* began. [Yet other Zulu thought that there was a small *uluTuli*: a viewpoint rejected by Ndukwana.] It was believed that the *Great uLutuli* carries a reed from one place to another. A reed is taken up in a whirlwind (a whirlwind of *uKolo*). The reed 'ascends right up' and is carried to 'another part'. An alternative name for the bird described here (the Yellow-billed Kite) is *uNhloyile*. People began to cultivate as soon as the bird was sighted. The remaining grass was burnt off during the beginning of *uNcwaba* when the Yellow-billed Kite swoops at the grasshoppers. At this point Ndukwana expresses himself thus: 'I say *Nhlaba*, *Little Nhlangula*, *Great Nhlangula*, *Lutuli* or *Maquba* or *Ntulikazi*, *Ncwaba*'.

The month of *Mandulo* was so-called because people began working in their **gardens** (*izife; izivande*) of maize (i.e. their maize-plots). The white *inhlanyela* (the *amabele*) comes out later, and it is then that the **fields** or *amasimu* are started (during *Mfumfu*). There are fields solely of maize which are hoed when the month of *uLwezi* ends (Ndukwana cited in Webb and Wright, 1986).

Two other lists of names for the lunar months are outlined in Webb and Wright (2001). The informant in both cases was Ngidi (alias Magambukazi).

The first listing:

- **Zibandhlela** = November.
- **Nhlolanja** or **uNgcelamkwekazi** = December.
- **Ndasa** = January.
- **Inguyazibuya** = February.

Also:

- **Mbasa**
- **Little Ntulini**; **Ntulazana**
- **Great Ntulini**; **Maquba**
- **Ncwaba**
- **Mpandu** (known as **Mandulo** in the time of Mpande)
- **Mfumfu**.

The second listing:

- **Ngululazibuya**
- **Maquba**
- **Great Ntulini**
- **Ncwaba**
- **Mpandu**
- **Mfumfu**.
- **Zibandhlela**
- **Nhlolanja**
- **Ndasa**
- **Mbaso**
- **Ngcelamkwekazi**

Ngidi states further that the Common Fiscal or Fiskaallaksman (*Lanius collaris*) Zulu = *iLunga; iQola* lays its eggs during *uMpandu* and *uMfumfu* and calls. Another bird which calls at this time is evidently the Grey-backed Camaroptera or Grysrugkwêkwêvoël (*Camaroptera brevicaudata*) Zulu = *iboyi*. The *amabele* swells in the month of *uMfumfu*, which is also when the maize has ripened in the maize-plots (*ezifeni*). Some of the *amabele* is then in full flower and some of the maize is beginning to flower in the big fields. The *amabele* turns red (becomes ripe) during *Masingana*. The month of *iNgululazibuya* follows the month of *uMbasa*. It is in *iNgululazibuya* when the *amabele* is harvested and when patches of grass are cleared away, there to thresh the *amabele*. (*Gulula* means 'to clear off grass', while *isibuya* refers to 'a piece of ground from which grass etc. has been cleared off'.) Hunting parties begin to be sent out in the month of *uMaquba* (*Little Ntulini*) (Webb and Wright, 2001).

A reassessment of the Zulu moons

Koopman (2002) based his discussion on the sources listed above as well as two dictionaries, namely: Samuelson (1923) and a later edition of Doke and Vilakazi published in 1958. The Zulu moons in Natal and Zululand, as per Koopman (2002), are as follows:

- ***uNcwaba* (July)**.
- ***uMandulo* (August)**.
- ***uMfumfu* (September)**.
- ***uLwezi* (October)**.
- ***uZibandlela* (November)**.
- ***uMasingana* (December)**.
- ***uNhlolanja* (January)**.

- ***uNdasa* (February)**.
- ***uMbasa*** or ***uMbaso* (probably March)**. Koopman put forward a different explanation for references to fires and cooler weather at this time. He suggested that fires were lit to roast the first mealies, especially by herd-boys who had stolen mealies from gardens and fields.
- ***uNgulazibuya* (end of March or March–April)**.
- ***uNhlaba* (April or between April and May)**.
- ***uNhlangula*** or ***uNhlangulana* (May–June)**.
- ***uNtulikazi* (June–July: the 13th month)**.

Koopman (2002) also discussed the Mkuze moons, although he did not arrange many of these moons in chronological order. Koopman, however, stated that certain equivalents in terms of the Natal and Zululand moons can be determined. These include:

- Mkuze: *uNtloyile* (with its two variants *uNtloyiya* and *uNtloyiye*) = the Natal and Zululand: *uNcwaba*.
- Mkuze: *uMabasa* (with its variants *uMabas'endleni*, *uMbasa* and *uMbaso*) = the Natal and Zululand: *uMbasa* or *uMbaso*.
- Mkuze: *uNtlaba* (with its variant *uMhlaba*) = the Natal and Zululand: *uNhlaba*.
- Mkuze: *iZe* evidently equates to the Natal and Zululand: *uNtulikazi*. The term *iZe* means 'nothing', hence 'The Moon of Nothing' (Koopman, 2002).
- Mkuze: *uTyelabani* (with its variant *uTyenabani*) probably equates to the Natal and Zululand: *uNdasa*.

Other equivalents can perhaps be found according to the month, or on the basis of a similarity of function (Koopman, 2002).

Some commercial implications of the Zulu lunar months

Atkins (1988), in an interesting paper, discussed certain cultural causes of conflict between white employers and their Zulu workers in Natal during the 19th century. Atkins focussed on the different perceptions of time between the two parties and the practical results thereof. The Zulu (as we have already seen) used the passage of the Sun across the sky as the daily unit of time, and a 13 lunar month calendar to chart the year. Phases of the Moon determined time within a given lunar month. The Zulu word *inyanga*, in consequence, refers to both the Moon itself and a lunar month, which lasted for approximately 28 days. A month in western time is a flexible concept with the length of a month ranging from 28–31 days. A Zulu worker engaged for one month was paid at the end of the month. But whose month was dominant? Such monthly-paid workers began work at New Moon (a time when important endeavours were thought to be successful), and expected to be paid when the Moon 'was dead' (*inyanga file*). This was notwithstanding the fact that the western-style month could extend to 31 days, which the Zulu did not understand. The ensuing confusion resulted in strikes, disciplinary action and the withdrawal of Zulu

males from the labour market, with the workers insisting that they had been cheated and made to perform unpaid labour. The situation was not helped by the inability of many white employers to properly communicate with their Zulu workers. Far-sighted employers simply adopted the Zulu month for payment purposes, while others dispensed with Zulu labour altogether (Atkins, 1988).

Raum (1973), in a further comment, noted that Zulu men in the 1850s used to start work at the time of New Moon (presumably after the black and white days: see above). One implied difficulty here is that sighting of the New Moon depends on the time of day of this occurrence and also the weather conditions. It is possible that some Zulu men may have refused to begin work until the New Moon had actually been seen, resulting in a further source of conflict, especially when urgent tasks required attention. Raum (1973) cited one example of a quarrel in 1849 between a certain J.M. Cockburn (a newcomer to Natal) and his Zulu employee. The former wished to pay according to the calendar month, while the latter expected to be paid by the Moon. Additional labour problems included the departure of large numbers of Zulu men to their homes in rural Natal, in the first four months of the year, in order to celebrate the Feast of the First Fruits and later to help with the harvest and to eat green mealies (Atkins, 1988). This course of action reduced the labour supply in towns, and meant extra work for those who remained behind.

A second point of contention was the difference between a western calendar year of 12 months and the Zulu concept of a year (Atkins, 1988). At the root of the problem was the use of the Zulu word *uNyaka* or *umNyaka* by white employers to indicate a full calendar year to prospective Zulu employees. The annual cycle of the Zulu, however, consisted of two seasons each with about six moons. These were (a) *uNyaka* or 'the rainy or field work season', and (b) *ubuSika* or 'the dry or winter season'. There was accordingly a linguist disparity between the western working year and the work or busy season of the Zulu. Perceptive employers avoided difficulties by adopting the 'relay method', where the employer reached an agreement with the head (*umnumzana*) of a particular homestead (*umuzi*), with the latter undertaking to provide a continuous supply of labour at all times during the year.

A third problem was the length of the working day, especially on the sugar cane estates. The growth cycle of sugar cane encompasses both summer and winter. There were no difficulties in summer when there was sufficient daylight to undertake the necessary tasks such as weeding. Problems arose in winter with the shorter hours of daylight, combined with the Zulu custom of starting the working day about an hour after sunrise and stopping work approximately an hour before sunset (the 'standard' Zulu working day). It was at this time of the year that the 'heavy work' of harvesting and crushing took place. Once the cane has been cut it is vital to crush the crop as rapidly as possible, failing which, there is a severe decline in the quality of the sugar. The height of the sugar-manufacturing process was in the months of June–September, when there was a definite shortfall in the daily number of hours worked by the Zulu, given the above-mentioned custom and the length of the solar day. A second loss of time was due to the unwillingness of the Zulu to work at night or in cold weather. The former was partly based on a fear of *abatakati* or *abathakathi* (evil-doers) who went around at the dead of night accompanied by their

familiars, dispensing sickness and death (**see Chapter 2**). Another reason concerned malaria where the Zulu (in Zululand) retired to their huts before sunset, only emerging in the morning when the dew had evaporated from the grass. A belief in the efficacy of this procedure eventually extended beyond Zululand into Natal. Two strategies were adopted by employers to overcome these difficulties, namely: piece work (hiring in terms of a specific task) rather than for the day, and importing indentured labour from India.

Problems persisted in the urban areas, resulting in the passing of legislation in 1894 whereby the 12 months of the western calendar year were 'officially' given an equal number of units of 30 days. This development only had a limited impact. Other measures were also attempted. Atkins (1988) states that by 1862 several town mission schools had informally included 'matters of common knowledge' as well as scientific explanations of natural phenomenon in their curriculum. Formal examinations in basic astronomy were conducted at the Umsunduzi Mission Station established by Lewis Grout of the American Board of Commissioners for Foreign Missions. [It would be interesting to discover particular details in this regard.] Further disputes concerned the times for meals during the working day, the concept of a seven day week, and the notion of public holidays (Atkins, 1988). The experiences described here were not unique to the Zulu and probably encompassed other parts of South Africa in the 19th century, wherever African customs and western concepts of time clashed. One example is the Venda, who despite reassurances from their employers, were convinced that they were being cheated of some of their wages (Gottschling, 1905).

Langa Ndebele (Mapela) moons

The Langa Ndebele or Mapela are resident to the north west of Mokopane and form part of the Northern Ndebele (Jackson, 1969). The rulers of the Mapela are or were Ndebele, with the name of *Langa* or 'the Sun'. Most of their subjects, however, are Sotho in origin. The cultural attributes of the Mapela, with the passage of time, have become almost indistinguishable from the Sotho. According to P.S. Groenewald all the names of the months are Sotho names. It appears that the Mapela calendar once had a 13th month, although the details thereof have been forgotten over time. The 12 months are as follows:

- **Phatô (phatola ditlhare)** = September. This month was the beginning of the Mapela year in *Selemo* or the 'cultivating season' (September–December). Trees start budding (*go phatola*) during this month. An important event, the doctoring of the boundaries (*go lahla mekgao*) ceremony, took place in September and again in March. Jackson stated that this ceremony was still held in 1969. The doctoring involved the pegging down of medicated black sticks or *mekgao* parallel to, and next to all the roads, drifts and footpaths leading to Langa Ndebele territory. Four pegs were used to secure each stick. The sticks were believed to prevent the entry to the land of hail, lightning, storms or any evil which might negatively affect the weather, or threaten the well-being of the people. The sticks were also thought to hold the rain, preventing it from passing by and falling elsewhere.

- **Mangwetši (a mogale, kgwedi ya sepšheša madiba, e be e boye a tlatše)** = October. This is the hot month of brides and the month that evaporates the pools, so that the rain can come and fill the pools. The name *Mangwetši* is derived from the word *ngwetši* meaning 'a daughter-in-law or a bride'. The concept here is that the first rains of the

season arrive like a bride, being welcomed with the same joy, and bringing the same promise of fertility. A ceremony last held in this month in about 1919 was that of *sekonkodi*, or *mphoko wa malapa* or *mphoko wa basadi* (the women's ceremony). The ceremony involved the collection of seed (grain) from households as well as the drawing of water from the river for rainmaking medicines. The rain pots from the rain enclosure (*lešakana la pula*) situated behind the chief's village were used as receptacles for the seed and the water. The ceremony, as such, was a preliminary rain ceremony.

- **Dibatsela (di phalana)** = November. The name has several meanings. It is the month in which the impala or *phala* ewes give birth. A whistle was made from impala horn which was known as *mphala*. Nature becomes animated after the first good spring rains. The animals whistle and croak at each other, and make paths (*tsela*) as they follow each other around in their mating ritual. *Dibatsela* may also refer to the fact that the paths become strings of pools (*-diba*) when rain falls. The seed ceremony and the silencing of the drums took place in November. The ceremony has only been held once since 1939. The ceremony was known as *mphoko wa bobedi* (the second ceremony), *mphoko wa peu* (the seed ceremony), *mphoko wa banna* (the men's ceremony), or *mphoko wa go thibêla dipitša* (the ceremony for safeguarding the pots, i.e. the rain pots). The ceremony was essentially military in nature, with the doctoring of the warriors taking place in the courtyard or *kgôrô* of the chief. Linked to this ceremony was the seed ceremony, which involved the issuing of magically treated seed from the chief to high office bearers, and so on down the hierarchy to the ordinary householder. This procedure signalled the start of the sowing season and ensured that good yields would be obtained throughout the land. The ceremony included an order by the chief that the drums were to be silenced. This prohibition referred to all types of drums as well as to the *letlhakanoka* whistle which was made from reeds found at the river. It was thought that the sound of the drums caused winds to blow, while the sound of whistles resulted in storms, especially hailstorms. Such occurrences interfered with the rain pots and hence the functioning of the rainmaking magic. The drums, as of 1969, were still silenced each year for the duration of the rainy season (i.e. until March), although allowance was made for Christmas when the people were allowed to enjoy themselves and to play their drums.

- **Kwêlawêla (ditlhare)** = December. A few *thêtlwa* and *tshidi* berries begin to ripen during this month. A person could by chance (*go wêla*) come across a bountiful supply thereof. *Tshidi* is the Northern Sotho name of the Natal Sourplum/Sourplum or Natalsuurpruim/Suurpruim (*Ximenia caffra*) (Pooley, 1993; Ziervogel and Mokgokong, 1975). The true rain ceremony or *mphoko wa pula* was held in this month, shortly after the seed ceremony. Jackson (1969) noted that many rain doctors were still at work at his time of writing, although the chief no longer had an official rainmaker (*morôka*).

- **Ngwana itšeêle (thêtlwa)** = January. The meaning is: 'Child pick yourself a *thêtlwa* berry'. The berries on the *morêtlwa* bush ripen and even the smallest toddler can walk a short distance to pick these berries. The species in question, according to Fox and Norwood Young (1983), is the Brandy-bush/Raisin Tree/Wild Plum or Brandewynbos

or Rosyntjiebos or Sandbessies (*Grewia flava*) Pedi = *moretlwa; meretlua* [*meretlwa*]. This is the first month of summer or *Letlhabola* which extends until the end of April.

- **Legobje (la mpa le modula)** = February. *Legobje* is the soft rain which falls in this month, while *mpa le modula* refers to two stages in the growth of sorghum or *mabele*. The first stage is just before the ear protrudes from its sheath, and it seems as if the ear is in a womb or *mpa*. The second stage is just after the ear emerges from the sheath when it is covered with pollen (*modula*). The Feast of the First Fruits or *go loma lerotse* ('to bite the pumpkin') took place in February. The ceremony was last held in 1905. Only children who had not yet undergone initiation participated in the ceremony and bit a piece of pumpkin. The people, once the ceremony was over, could enjoy the fresh produce from their lands which up until then they were forbidden to eat.

- **Semphe-ke-khotše** = March. The meaning here is: 'Do not give me, I am satiated'. Fresh produce from the land is plentiful in this month.

- **Serotontholê (ke rwele mafodi)** = April. It was said: 'Relieve me of the basket, I am carrying pumpkins'. The word *mafodi* is a collective noun which applies to the various members of the pumpkin family.

- **Moranang (*wa naka*)** = May. This is the beginning of *Marega* or winter which continues until the end of August. Canopus (*naka*) is first seen in the early morning in this month. The name of the month is descriptive of small insects which hover around the sorghum ears at this time and are said to feed on the pollen or *modula*, some of which is still attached to the ears (**see Chapter 5**).

- **Mosêlanong** or **Phukhwana** = June. *Nong* is a collective noun for birds and *sêla* means 'to look for food'. The birds are very troublesome, feeding on the crops in the lands, or where threshing is taking place. *Phukhwana* is the diminutive of *Phukhu*, which is the name of July. It appears as if *Phukhwana* became a separate month once every three years, thus regulating the Mapela calendar which was then out of synchronisation. Informants interviewed by Jackson were unsure about this course of action, however. A separate harvest festival or *mokatô* was held in June, although the last such ceremony took place in 1919. This ceremony, according to Jackson's informants, was the second phase of the Feast of the First Fruits when the adults were allowed to *loma* or 'bite'. A cattle race (*mokatô*) formed part of the festivities. The ceremony was a sign that the full-scale harvesting of crops could begin.

- **Phukhu (ya mmalehwa phefo, mašemo a a rerwa)** = July. The cold winter winds come to an end in this month. The people begin to talk about cultivating their lands in the new season, although no work was undertaken at this stage. The ceremony for lifting the ban on the drums (setting the drums free) or *mphoko wa go thibolla dipitša* took place in this month. The ceremony was also known as *mphoko wa pele* or the first ceremony, with the ceremony for silencing the drums being regarded as the second such ceremony. No seed was issued since it was winter. The warriors were again doctored and the people were free to play their drums and to blow their *letlhakanoka* whistles. This ceremony, according to Jackson, is no longer performed. Note that the description

of the drums given here is contrary to the earlier statement that the drums were only silenced for the rainy season. It is not impossible that the silencing of the drums was automatically suspended after the rainy season, but without a formal proclamation at that stage of the year by the chief.

- **Ditlhage** or **Tlhakola** = August. The dry grass or *ditlhage* is burnt in this month. *Tlhakola* means to 'deprive'. The trees are deprived of any remaining leaves by strong winds which blow during August (Jackson, 1969).

Southern Ndebele moons

One version of the 'traditional' names of the months or moons (*izinyanga*) is given in Fourie (1921). The information refers to an older orthography in respect of the Ndzundza Ndebele. These names are merely cardinal numbers: one (*kunye*); two (*kumbili*), three (*kundathu*), and so on up to 12 (*kusumi-nombili*). The months are thus described as month one; month two, month three, etc. A more modern Southern Ndebele version of the names of the months is provided here as per A. Wilkes. The influence of the English language (loan-words) is apparent in the names for January and May, which are clearly not traditional terms.

- **uVelabahlinze (July)**.
- **uRhoboyi (August)**.
- **uKhukhulamungu**. Less frequently encountered is: **uMbozisi (September)**.
- **uSewula (October)**.
- **uSinyikhaba (November)**.
- **uNobayeni (December)**.
- **uTjhirhweni**. Less frequently encountered is: **uMtjhidi (January)**.
- **uMhlolanja (February)**.
- **uNtaka (March)**.
- **uSihlabantaka (April)**.
- **uMrhayili (May)**.
- **uMgwengweni (June)**.

Ndzundza Ndebele initiation ceremonies were held once every four years, unless exceptional circumstances arose (Fourie, 1921; Kuper, 1978). This ceremony or *wela* commenced with the first New Moon at about the end of April or early May (the beginning of winter) and continued for two lunar months until the subsequent appearance of the New Moon. Fourie (1921), rather confusingly, also states that the Ndzundza Ndebele actually began *wela* in the evening on which the New Moon 'was visible for the second time'. Breutz (1969) referred to an incident around 1967 in the Groblersdal district when a new regiment was unable to leave their circumcision school because the old men were unsure about the precise day of the New Moon. The celebrations marking the end of the circumcision rites were postponed for two days pending clarity on the phase of the Moon.

The three-day Ndzundza Ndebele Feast of the First Fruits or harvest ceremony (*luma*) was once held in about January, 10 days after New Moon. Pumpkins were the main crop in the ritual which *inter alia* involved the 'biting' or *luma* of the new crops by the king (*inkosi*). The king, more latterly, fixed the date of the *luma* ceremony depending on conditions then prevailing (Fourie, 1921; Kuper, 1978). These customs have evidently changed over the years, given information supplied by Becker (1962). According to Becker, the Feast of the First Fruits ceremony (*circa* 1828) amongst the Ndebele (being originally of Zulu stock) was very similar to that of the Zulu at that time. The Great *Nxwala* (= *umKhosi*) was held at Full Moon in December. Activities included the killing of a black bull by young warriors, the doctoring of the king (Mzilikazi), dancing and offerings. The Ndebele could only eat their ripening crops at the end of the ceremony. It was entirely in the interests of the people to fully participate in the ceremony, since they could then be confident of future good fortune and prosperity (Becker, 1962).

Xhosa moons

The 12 months (moons) of the Xhosa year, based on Soga (1931), are outlined here. A modern spelling format has been used as per A.P. Dold. Soga was unsure whether the traditional months were according to the old beliefs, or whether the information reflected the influence of the early missionaries. The latter may well be the case. The Xhosa months are as follows:

- **eyeSilimela** = June. The month of the Pleiades and the beginning of the Xhosa year. The name means 'the one that ploughs for', i.e. that which ushers in the ploughing season. The rising of the Pleiades occurs in this month, which was a sign that the first agricultural tasks of the year were at hand.

- **eyeNtlaba** = July. The month of the aloes. This is the month in which certain species of aloe burst into flower.

- **eyeThupa** = August. The month of buds. The time when some trees begin to bud.

- **eyoMsintsi** = September. The month of the *Erythrina* spp. trees. These trees are in flower in this month. Soga referred to the Coast Coral Tree or Kuskoraalboom (*Erythrina caffra*), which as the name suggests, is a coastal species. It is possible that the species is actually the Common Coral Tree or Gewone Koraalboom (*E. lysistemon*).

- **eyeDwara** = October. The month of the small ragwort. This unidentified species of ragwort blossoms in this month. Ragworts are annual herbs of the genus *Senecio*.

- **eyeNkanga** = November. The month of the large ragwort. An unidentified species of ragwort which flowers at this time.

- **eyeMnga** = December. The month of the mimosa or *umnga*. Mimosa is an old term for acacia. Most *Acacia* spp. trees are in full bloom in this month.

- **eyeMqungu** = January. The month of the tall grass. The name refers to the maturing of thatching grass (*tambooki*), specifically: *Hyparrhenia* spp. or *umqungu*.

- **eyoMdumba** = February. The month of the pod. Pod-bearing trees bear pods (seeds) at this time.

- **eyoKwindla** = March. The harvest month. The earliest ripening grain is evident in this month.

- **uTshazimpuzi** = April. The month when the pumpkins become frost-bitten.

- **uCanzibe** = May. The month when Saturn appears. It is important to bear in mind that Soga erroneously referred to Saturn in this instance (**see Chapter 5**). The correct indicator is Canopus or *uCanzibe*. Other Xhosa names for this month are *ekaCanzibe* and *inyanga kaCanzibe* (Tshabe and Shoba, 2006).

Kopke (1982) provided a slightly different interpretation of the Xhosa months, reflecting a scenario more suited to the western calendar. Traditional months and seasons in the past often overlapped, which is no longer the case here. Kopke confirmed that the Xhosa made use of both environmental and celestial phenomena as temporal markers. The stars served as indicators at the end of autumn and the beginning of winter (May and June) when the growing season was over, and botanical signals representative of the passage of time were absent. Celestial markers, interestingly, did not apply to some other Xhosa-speakers such as the Bhaca, Mpondo and Mfengu. The Xhosa months, according to Kopke, are listed below:

- **eyeSilimela** = June. The time of the Pleiades.

- **eyeKhala** = July. The Bitter Aloe or Bitteraalwyn (*Aloe ferox = A. candelabrum*) Xhosa = *iKhala* flowers in this month.

- **eyeThupha** = August. The time when *Erythrina* spp. trees bud.

- **eyoMsintsi** = September. The month of flowering of the Coast Coral Tree or Kuskoraalboom (*Erythrina caffra*) Xhosa = *umSintsi*.

- **eyeDwarha** = October. The Molteno-disease Plant/Ragwort/Stagger's Bush or Gifbossiesenecio/Kraakstewel/Krakerbossie (*Senecio latifolius*) Xhosa = *idwara; iyesa lasekaya* flowers in this month. [Kropf and Godfrey (1915) state that it is time to sow maize when the plant is in flower.]

- **eyeNkanga** = November. The African Daisy/Common Ragwort or Perdegifbos (*S. pterophorus*) Xhosa = *inkanga* flowers.

- **eyoMnga** = December. The Sweet Thorn or Soetdoring tree (*Acacia karroo*) Xhosa = *umnga; umuNga* flowers at this stage.

- **eyoMqungu** = January. The time of the Giant Turpentine-grass or Reuse Terpentyngras (*Cymbopogon validus*) Xhosa = *umqungu; irwashu* which is used for thatching. This grass is also known as *tamboekie*.

- **eyoMdumba** = February. The time when the *A. karroo* pods swell.

- **uKwindla** = March. The time of plenty.
- **uTshaziimpuzi** = April. The withering of pumpkin stems.
- **ekaCanzibe** = May. The time of Canopus (Kopke, 1982).

Bhaca, Mpondo and Mfengu moons

The 12 months or moons as per the Bhaca (Hammond-Tooke, 1962), and Mpondo (Hunter, first edition: 1936; second edition 1961) are given below. The Bhaca data, recorded in the Mount Frere district, refer to the Bhaca dialect and not Xhosa terminology. Information for the Mpondo follows immediately after each Bhaca entry. Differences in monthly activities between the two groups can probably be ascribed, in part, to a different emphasis by the two anthropologists, and to a varying fieldwork schedule. Hunter was active in this regard in the late 1920s and early 1930s, whereas Hammond-Tooke carried out his study of the Bhaca in the period 1949–1960 when change was rapidly accelerating, and various customs were disappearing. There is thus a gap of some 30 years between the two accounts. A further point of variation is that the Bhaca are generally resident at a higher altitude than the Mpondo. Brief data for the Mfengu, as outlined in Kopke (1982), are also presented. Mfengu terminology reflects the influence of the Zulu language due to the close contact between these two groups in the historical past. The Mfengu fled south to areas inhabited by the Xhosa at the time of Zulu expansionism in the early 19th century. Not everyone agrees with this interpretation of events, however. The respective moons were as follows:

August

- ***Bhaca*: Mphandula**. The name is derived from *ukuphanda* or 'to scratch with a hoe'. This was the time when the final festivals of winter were held. The agricultural season, nevertheless, was at hand as the name suggests.
- ***Mpondo*: umFumfu**. **The turning of burnt patches**, derived from *ukufumfusa* or 'to just emerge, come forth into view'. The time of threshing, storing grain and clearing the fields. Basket-making and woodwork was undertaken. Wooden articles included household utensils, pipes and sticks as well as ornaments. Also the time of festivals.
- ***Mfengu*: uGogode**.

September

- ***Bhaca*: Mfumfu**. **The cattle eat the dew**. The time when the veld was burnt and ploughing started after the first spring rains. The herding of cattle at greater distances from the homesteads (to take advantage of the green grass) was resumed.
- ***Mpondo*: umPhanda**. **The month of ploughing**, derived from *ukuphanda* or 'to dig'. The clearing of the fields was undertaken and ploughing along with 'strict herding' began. The women planted hand-plots, presumably gardens.
- ***Mfengu*: ekaPhezukomkhono**.

October

- ***Bhaca*: Nzibandlela**. **When the long grass obscures the paths**. The time when hoeing, planting and strict herding commenced.

- ***Mpondo*: uZibandlela**. **They spread a mat for themselves**, i.e. rough grass is burnt. Clearing and ploughing was underway. Weeding and the making of pots began. The latter activity was undertaken in the warmer, damper conditions in this month.
- ***Mfengu*: uMfumfu**.

November

- ***Bhaca*: Lweti**. **The cicada**. Planting and weeding was undertaken.
- ***Mpondo*: uLwezi**. *Ulwezi* refers to the cicada which begins to sing. Weeding continued, while the early maize ripened.
- ***Mfengu*: uLwezi**.

December

- ***Bhaca*: Ntsinga**. **When the pumpkins begin to flower**. Weeding and hoeing was still in progress, although no further planting took place.
- ***Mpondo*: uNtsinga**. **Looking for the knotting of pumpkins**, from *ukusinga* or 'to knot'. Weeding was still underway. The pumpkins ripened, while the green maize was ready for consumption. The Feast of the First Fruits (*ingxwala*) was held in this month.
- ***Mfengu*: uNtsinga** or **uNtsinde**.

January

- ***Bhaca*: Ntlolanja**. **When the dogs look at the pumpkins**. Hoeing and weeding was still in progress. The early beans, pumpkins and marrows were harvested.
- ***Mpondo*: uNtlonlanja**. **Dogs peep for new maize**, from *ukuti ntlo* or 'to spy' and *inja* 'a dog', i.e. dogs eat new cobs. Weeding was still underway.
- ***Mfengu*: uNtlolanja**.

February

- ***Bhaca*: Ndzata**. The time when hoeing and weeding ended, and the maize and sorghum crops ripened. Repairs were made to some huts.
- ***Mpondo*: uNdaza** or **uNdazosela**. **Everyone roasts maize for themselves**, from *ukwoza* or 'to roast'. The people remained busy with weeding.
- ***Mfengu*: uNdozosela**.

March

- ***Bhaca*: Mbasa**. **The roasting of the mealies**, from *ukubasa* or 'to kindle a fire'. The main bean harvest took place at this stage, while green maize was eaten. Work ended in the fields. The Feast of the First Fruits (*ingcubhe*) was held during this month.
- ***Mpondo*: umBasa**. **Green maize is plentiful and people are sated so that they forget cobs put on to roast**. The name is derived from *ukubasa* or 'to light a fire'. The building and repairing of huts began before the harvest and continued after the harvest.
- ***Mfengu*: uMbasa**.

April

- ***Bhaca*: Mgudlulwa**. The harvesting of beans continued. Sledges, drawn by oxen, were made.
- ***Mpondo*: umGudlula**. **The preparation of threshing floors**. The name is derived from *ukugudla* or 'to rub, to brush'. The harvest commenced. Reeds for basket-making were cut.
- ***Mfengu*: uNtlangula**.

May

- ***Bhaca*: Ntlangula**. **Husks blown by the wind**. The main harvest of the maize and sorghum crops was undertaken. Huts were repaired. Festivals and social life commenced as the agricultural year drew to a close.
- ***Mpondo*: uNtlangula**. **The falling of leaves**. The name refers to *ukuti ntla* or 'to dash, throw down'. Harvesting was in progress. The cattle were allowed to graze in the fields. Festivals began, and hut-building and repairing was undertaken.
- ***Mfengu*: umGudla**.

June

- ***Bhaca*: Ntulikati**. **Great wind or dust**. The harvest was then completed.
- ***Mpondo*: uNtulukazi**. **Great dust**, derived from *utuli* or 'dust'. Harvesting continued along with hut-building and repairing. A time of festivals, woodwork and considerable basket-making.
- ***Mfengu*: uNtulikazi**.

July

- ***Bhaca*: Ncwaba**. **Everything brown**. The grain was stored and threshed. Cattle were allowed to graze in the fields. 'School people' or westernised Christians, i.e. 'believers' as well as western-orientated agnostics (as opposed to traditionalists who followed the ways of their forefathers) cleared gardens for vegetables.
- ***Mpondo*: uNcwabakazi**. **Green is seen**, where *ukuncwaba* means to 'look fresh, or green'. A time of threshing grain and cleaning the grain pits for storing the grain. Woodwork, basket and mat making as well as hut-building and repairing was undertaken. Various festivals took place. The emphasis on green vegetation suggests that certain early-flowering trees and shrubs start showing their green leaves in this month. This may be another way of saying that the greenness in question relates to lower-altitude trees and shrubs, which are not found at higher (Bhaca) elevations, or which produce leaves at a later stage.
- ***Mfengu*: uNgcwabakazi**.

Note:
It would seem that November, in the moist regions of South Africa, is the month when most cicadas first start calling. Reference is usually made to the Christmas beetle (Family: Cicadidae). An interesting statistic for the wetter, northern (wooded) side of Pietermaritzburg is that the first singing of cicadas, in the period 1985–2007 in that locality,

varied from the 27th of October to the 3rd of December, with all observations (excluding three) occurring in November (C. Mackenzie).

Swazi moons

The Swazi calendar, as outlined by Marwick (1940), is provided below. It should be borne in mind that Marwick did not include western calendar months in his discussion. The current author, as a first approximation, has inserted the roughly equivalent calendar months. The moons provided by Marwick are somewhat puzzling, since the ecological events associated with at least one Moon appear to occur too early in the year, specifically around July. Reference to rains and ploughing in July or thereabouts do not accord with reality. Another possibility is to regard the months as purely lunar months where *Mabasa* for instance, is then March–April, while *Nkwekweti* is April–May and so on. This procedure, nevertheless, is still not convincing for mid-year. The insertion of the 13th Moon, as described, does not generally remedy matters. The moons are as follows:

- **Mabasa (April)**. The name is derived from *ukubasa* or 'to make a fire'. It starts to become cold now and travellers make fires at intervals along the paths to keep warm. Grain platforms (*tinyango*) are erected by the men, usually behind the village (*umuti*). Maize and sorghum are reaped. The first frosts are evident.

- **Nkwekweti (May)**. One version is that the name is derived from *ukukweta* or 'to put on top', which refers to reaped maize being placed on the *tinyango*. Reaping of the maize and sorghum continues.

- **Inhlaba (June)**. The name relates to aloes which begin to flower. The species is possibly the same as that described for the Zulu moons. The corn is threshed and the maize and nuts are shelled. The cutting of grass and reeds is undertaken in this month. The cattle are allowed to graze in the fields. Old huts and cattle enclosures are repaired, while new huts are built. Fire-breaks are burnt. Light rains often occur, known as *umbotisa mahlanga* or 'the one which makes the corn stalks rotten'. Marwick, elsewhere in his book, refers to the burning of veld in autumn. Such veld is then known as *mshakwindla* or 'burnt in the autumn', and is ready for grazing by the livestock in early spring. Livestock graze in the interim on veld which is not burnt in autumn (*síkotsa sokuhlula ubusika* = 'the grass to defeat the winter') until the *mshakwindla* veld is available.

- **Kholwane (July)**. Marwick claims that the name is that of a 'hawk' which nests during this Moon. This Swazi name actually refers to both the month of July and to the Red-billed Hornbill or Rooibekneushoringvoël (*Tockus erythrorhynchus*), as per Rycroft (1981). The hunting season reaches a peak at this time. The annual *makhosi* ceremony takes place, when fire-breaks are burnt around the royal graves to safeguard the graves from veld fires. The fires are lit, as indicated, for veld management purposes. The rains commence, lasting until *Mabasa*. Ploughing begins and maize, primarily, is planted.

- **iNgci (August)** (Rycroft, 1981). Marwick described the name as that of 'a small kind of wolf'. This carnivore, according to Rycroft, is the Aardwolf or Maanhaarjakkals (*Proteles cristatus*) Swazi = *singci*. The species is mainly nocturnal, which would accord with the Moon as a celestial body of the darkness. The *singci* as per Marwick

drops its young at this time: a fact confirmed by Dalton (1987) who indicated that the species begins to give birth from around mid-August until early February. Ploughing continues, and maize and potatoes are planted. Maize can be planted until *Bimbidwane*.

- **Inyoni (September)**. The name means 'bird' and apparently refers to the Red-chested Cuckoo or Piet-my-vrou (*Cuculus solitarius*) which is known by the Zulu and Swazi as *uPhezukomkhono*. These birds as well as the Rock Hyrax/Rock Rabbit or Dassie/ Klipdas (*Procavia capensis*) Swazi = *imbila* mate during this Moon. Note that Marwick simply refers to 'rock rabbits'. The species stated is presumably the one in question. Sorghum is now planted, which continues until *Lweti*. Weeding of the early maize crops is initiated and continues until the *sangcapha* maize (see below) is weeded.

- **Impala (October)**. The *impala* give birth during this month. Planting and weeding continues.

- **Lweti (November)**. Marwick describes the name as that of a species of insect which appears at this time. The cicada is probably meant here. Planting and weeding proceeds in this month. The waning of this Moon signals that all is ready for the Little *Incwala* (Feast of the First Fruits) ceremony.

- **Ingongoni** or **Lidvuba** or **Mavungalamite (December)**. Both the blue wildebeest (*ingongoni*) and the zebra (*lidvuba*) calve in this month. This is the month of starvation (*vungula* = 'to pick the teeth' and *mita* = 'to swallow'). It was forbidden to eat the new crops at this time, prior to the Great *Incwala* ceremony. Food stocks were depleted. The people were thus obliged to pick their teeth and swallow the proceeds thereof. The Great *Incwala* is held at Full Moon in this month.

- **Bimbidwane (January)**. The name is derived from *ukubimbidzela* or 'to be satiated'. The new crops can now be eaten since the *Incwala* ceremony is over. Temporary huts on raised platforms are erected in the fields in preparation for the *lindza-ing* season, when the ripening crops must be protected from the birds. The final maize crops (*sangcapha*) are planted in frost-free localities.

- **Indlovana (February)**. The small elephant, which is possibly a reference to calves seen with adult elephants. Crops in the earliest planted gardens (*tivandze*) are reaped in this month. These gardens are often situated on a small piece of land in a riverbed or close to the village. Such gardens, being small and not accessible for ploughing, are cultivated by hand. Cultivation is usually undertaken earlier there, than in gardens or fields (*emasimi*) proper. Maize; sweet-reed (sweet-cane or sweet-sorghum = *Sorghum bicolor*); pumpkins, calabashes and melons are planted in the *tivandze*, as opposed to other crops in the *emasimi*. The birds now besiege the ripening crops and constant vigilance is required. The *sangcapha* maize is weeded.

- **Indlovu lenkulu (March)**. The large elephant. The corn is protected from the birds, while maize is reaped.

Marwick (1940) described a 13th (optional) Moon, the use of which had begun to lapse at his time of writing. This was the *inhlangula* or *inhlangula macembe* (*ukuhlangula* = 'to

brush off' and *macembe* = 'leaves') Moon, which was inserted between the *nkwekweti* and *inhlaba* moons. The 13th Moon was of significance for the timing of the *Incwala* ceremony, but was becoming obsolete due to the influence of the western calendar. Fairly strong northerly winds arise during this Moon when leaves are blown off the trees. Beans are reaped at this time as well as the *sangcapha* maize. The women cut grass to make mats, baskets, ropes and the coverings or roofs of huts. Reeds are likewise harvested for making windscreens (*emaguma*), which separate individual dwellings from each other in the village. The screens keep the wind out. Reeds are also used to make a *liguma* (a combined windscreen and household enclosure to ensure privacy). The men cut saplings or wattle branches to construct the framework (*luphahla*) for new huts.

A similar version of the Swazi months was provided by Kuper (1961). The calendar appears to date to the mid-1930s and refers to the Middleveld of Swaziland. Planting continues for longer in the Lowveld where frost occurs later in the year.

- **Mabasa (April)**. The name of the month is derived from the word *kubasa* or 'to make a fire'. It is now winter (*ubusika*). The harvesting of maize is almost finished, while the first millet is being collected. Milk production is decreasing with the cattle grazing on dried maize stalks (*emahlanga*). Herd-boys can relax at this stage of the year. Maize is stored and there are beer feasts, mainly for work parties. The burning of veld grass commences. Ceremonies which were prohibited during the rainy season begin, such as the doctoring of households against storms. Green foodstuffs are now old and bitter. Dry maize as well as fresh millet and certain vegetables (including pumpkins) are available.

- **Inkwekweti (May)**. The name is derived from *kwekweta* which means to 'pick up everything you have'. Harvesting of millet takes place. The same animal husbandry events as for April are applicable in this month. The burning of grass and the doctoring of households continues. Hunting now starts. Building activities are underway. Grass is cut for homes, mats, ropes and other requirements. The making of pottery is undertaken. There is now time for many ceremonies, including weddings and the end of the mourning period for widows. Fresh meat from game is available. The supply of foodstuffs is the same as for the previous month. Dried greens (*umfuso*) are consumed. Only a little rain is evident.

- **Inhlaba (June)**. The month is named after aloe blossoms. It is cold with no rain. Virtually all agricultural and animal husbandry activities have ceased. The last millet is harvested and beer is brewed from dried maize and millet. The available foodstuffs are as for the month of May. This period is one of rest with social and ceremonial activities predominant.

- **Kolwane (July)**. Reference is made here to a 'hawk that nests in this moon'. July is the height of the hunting season. Many people only eat one meal a day to conserve food supplies.

- **Inci (August)**. The name of the month is derived from a 'small wolf' which breeds during this month. It is now spring or little summer (*emahlobo tudlana*). The soil must

be prepared for the first planting of the crops. Millet is ripe for storage. The cattle are still feeding on stalks. Activities include burning grass, building, hunting and visiting. It is the end of the social period, however, since work in the fields has begun. The national and individual doctoring of fields to ensure crop productivity takes place. Cattle are sent to the royal graves. Kuper (1961) was presumably referring here to the annual sacrifice of cattle to the royal ancestors (*emadloti*) for rain, as explained by Marwick (1940). There is adequate stored food available in this month.

- **Inyoni (September)**. The month is named after a 'special bird' which mates. The first rains arrive. Maize planting begins in early gardens. Other crops such as pumpkins; monkey-nuts, sweet-cane and peas are planted. The cattle are sent to summer pasturage. The hunting season ends. Grass cutting, the making of pottery and the doctoring of households likewise stops. Building activities continue. The cattle return from the royal graves. The grass is burnt round the royal graves. Food stores are low. Green vegetables and mushrooms become available if rain falls.

- **Impala (October)**. The time when this antelope gives birth to its young. There is much activity involving planting, weeding, hoeing and ploughing. Cattle are in their summer pastures. Threshing of millet takes place, while building activities continue. A national rain ceremony is held if the rains have not yet arrived. Stored produce and new green foodstuffs are available, including sweet potatoes in the environs of Stegi.

- **Lweti (November)**. A specific star is seen when women start work in the early morning during this month. Another name for the month is 'Little Chief' or *Inkosi Yencane*. It is now summer or *lihlobo*. There is great activity amongst men, women and children in the gardens and fields. Milk production increases and careful herding begins. Building activities cease. The threshing of millet is still in hand. The national rain ceremony may extend into this month if required. The Little *Incwala* is held in November, although the ceremony may commence with the New Moon in December. Food stores are very low notwithstanding the availability of green vegetables. It is now the time of the 'Hunger Moon'.

- **Mavulangamithi (December)**. The name means 'to swallow pickings of teeth'. A further name for this month is *Inkosi Yenkulu* or 'Big Chief'. Heavy rains are evident. Everyone is very busy in the gardens and fields. Animal husbandry is the same as for November. Preparations are made for the Great *Incwala* to be held later in the month, which concerns the first fruits of a limited number of crops. The peak of hunger is now experienced, before the first crops ripen and can be eaten.

- **Bimbidwane (January)**. The name is derived from *kubimbi szela* or 'everyone satisfied'. It is the end of summer and the final rains fall. The last maize fields are planted, while early gardens are harvested. Weeding of fields planted later is underway. There is daily work to be done. Cattle are pastured away from the gardens, and are milked twice a day. Herd-boys are busy. There is little time for visits to friends and relatives living some distance away. No national ceremonies are held unless *Incwala* is late. Food is plentiful including fresh maize; pumpkins; cow peas; certain bulbs; monkey-nuts, pumpkin leaves and fruit.

- **Indlovana (February)**. The name refers to the 'little elephant'. It is now autumn or *likwindla*. The harvesting of green maize takes place, while the last fields of maize are weeded. The crops must be protected from marauding birds. Chiefs and ordinary householders rely on magic to keep the birds away from the crops. The cattle are taken to pasture in harvested gardens and are milked twice a day. Granaries are prepared. Dried maize is shelled. Virgin soil (*palula*) is turned. The food situation is the same as for the previous month. Marula beer is brewed in the Bushveld of Swaziland.

- **Indlovuyenkulu (March)**. The name means 'big elephant'. Harvesting is underway. Everyone is very busy in the fields. Millet must be carefully watched and guarded against the birds. Magic is used to protect the crops in general from birds. Animal husbandry is the same as in February. Maize is stored and there are beer feasts, mainly for work parties. Granaries are still being prepared and the shelling of dried maize continues. The food supply is the same as for February.

Kuper (1961) referred to the 13th Moon as *inhlangala* (derived from *kuhlangula* or to 'brush off leaves'). This is a Moon when wind is evident, and is a restful time with agricultural work (harvesting) only taking place in the millet fields. There is little to do, likewise, in terms of animal husbandry. This is an active social and ceremonial period with meat from game available. Beer is brewed from dried maize and millet. The *inhlangala* Moon, according to Kuper (1961), was inserted between the *inkwekweti* and *inhlaba* moons. The 13th Moon was omitted in more recent times to correlate the moons with western-style months.

Northern Sotho moons

Three versions are given below. The first is the Northern Sotho names of the months (moons) as per Beyer (1919), in terms of an older orthography. The second set of data for the Northern Sotho is according to Franz (1931). The third set of data was drawn from Mönnig (1983) and refers to the Pedi. Jackson (1969), in discussing Sotho moons in general, made the important point that differences between the various calendars are partly due to the fact that particular natural phenomena were selected in one area for the names of the months, with other phenomena prevailing in a different area. Also relevant for the more recent calendars is that a specific Sotho name was linked with a given month of the western calendar in one area, but with the previous or succeeding month in another area. Some of the natural phenomena, in addition, extend over a longer period than one month, adding to the difficulties of correlating traditional and western calendars (Jackson, 1969).

Further interpretations of the months and the spelling thereof can be found in Kriel (1976); Kriel and van Wyk (1989) as well as in Ziervogel and Mokgokong (1975). Readers are warned, however, of the dangers of using modern terms for the months in place of traditional names. This point was well-illustrated by Mojela (2009) in respect of the Northern Sotho. Mojela observed that the names of the original Pedi months (in the Pedi dialect of Northern Sotho) were associated with natural and socio-economic events in each month. This version of the calendar was changed in 1988 to what is known as Standard Northern Sotho Terminology and Orthography (Department of Education and Training, 1988). It must be explained that there are several Northern Sotho dialects, which has resulted in a linguistic standardization. The new Northern Sotho names of the months have

been directly correlated with the western calendar. January is now the first month of the year (in contrast to May in the traditional Pedi calendar). Other important changes include for instance, *Phupu*, which in the Pedi dialect refers to September, but which in the revised orthography has now become June. *Pherekgong* (Pedi = March) as a further example is now January. [Refer to the Mönnig (1983) version below.] Traditional Pedi values have thus been overturned, creating a degree of confusion (Mojela, 2009).

Version 1
Twelve months are listed below.

- **Shishishebo (the seshebo or side-dish)** = May. Beans are ripe in this month and are eaten as *seshebo* (Beyer, 1919).
- **Lefolwe** = June. The month in which corn is threshed out (*go folwa*).
- **Lefolwane** = July. The name of this month is the diminutive of *Lefolwe* (the preceding month).
- **Phupu** = August. The month during which the first trees start to *fupuga* or 'to blossom'.
- **Phepelelo** = September.
- **Morenane (the young master)** = October. The tilling-time begins.
- **Moseganong (kgwedi ea ngwetji eo bogale)** = November. The month of the angry daughter-in-law.
- **Ngetaboshego (ki a fofa or firefly: I am flying)** = December. The month in which the fireflies (Family: Lampyridae) begin to fly around during *boshego* (the night).
- **Phato (masohlo)** = January. The month in which the first green mealie cobs or *masohlo* are broken off and eaten.
- **Legobye (la mpa le modula)** = February. The month of the fully developed blossom.
- **Mahlohlokwe** = March. The month of the thin porridge.
- **Se mphe, ki khotshe!** = April. The meaning here is: 'Do not give me any more, I have had enough!' There is an abundance of food in this month (Beyer, 1919).

Version 2
Franz (1931) confirmed that the traditional months of the Northern Sotho could not really be linked to the western calendar. The names of the months reflect natural phenomena in that month and/or the activities of the people at that time of the year. Rain or the lack thereof was a primary determinant because virtually all agricultural activities depend on rain. The Northern Sotho months thus varied according to rainfall. The months, as outlined by Franz, are as follows:

- **Naka** or **Lebolo** = the end of May or the beginning of June. The month in which Canopus or *Naka* first rises. The reappearance of *Naka* meant that the old year had passed and that a new year had begun (**refer to Chapter 5**). The statement by Franz (1931) that the new year starts at this time, and which has been confirmed by other writers, is in contrast to events listed for around January (see below).

No data provided for the intervening three or four months.

- **Letšema** = probably September or October. The word *letšema* denotes the time for tilling the fields and sowing, since these activities take place almost simultaneously. The word is also used as the name for the first month of spring. When the seed was distributed, the chief (*kgoši*) called together all the diviners or *dingaka* to throw the diving bones (*ditaola*) to determine whether this *letšema* or season would be highly productive in terms of the yield of corn. The chief was given medicines (*dithokxolô*) by the diviners if the bones indicated that no rain could be expected. The chief wore some of these medicines around his neck so that no harm came to him, and also to ensure that plentiful rain fell. The chief supplied a certain medicine or *pheko* to the headmen and elderly men to give to their own people to mix with their *mabêlê* (seed). This medicine was applied to the borders of every garden (i.e. cultivated area) starting with the chief's field: the latter being known as *letsweta*. An important ceremony preceded the throwing of the bones, however. This was when the chief instructed young girls below the age of puberty (i.e. ritually pure) to draw water from a large river. The water was poured into sacred pots kept at the homestead of the chief. Young ritually pure boys, three days thereafter, inserted long supple sticks into the pots. The boys then ran as fast as they could, striking the doorways of houses throughout the chief's territory. Any meal or a pot in which food was being cooked, and which was seen by the boys, was regarded as unclean. Only the boys were entitled to eat such food once they had completed their ritual duties. This ceremony was referred to as 'striking the dew'. All fires were extinguished on that day. A new fire was started in the evening by the boys who used a fire-stick for this purpose. At the conclusion of these events the seed was given out and the ploughing and sowing season was declared to be open. The people began 'to till the fields with beer' (*xo lema ka mabyalwa*). This involved the owner of the garden inviting people to his field and providing them with beer and meat. The assembly sang songs of the 'ploughman', which had to do with ploughing. The people brought their picks with them and worked backwards and forwards in the rows, refreshing themselves at intervals with beer. A goat was killed at midday using the picks. The meat was cooked and eaten in the afternoon. An ox was killed when work was undertaken in the chief's field or *letsweta*. Specific measures were required if a dry spell set in at this stage of the year. The men selected black oxen and sheep to be sacrificed, and went to the chief's homestead where they begged the chief for rain. The chief indicated that he would ask the ancestors (*badimo*) for rain. The chief also sent the young girls to the river once more to draw water using small calabashes. The girls on their return sang a simple song:

E-e-drawer, draw and bring it with you
E-e-drawer, draw and bring it with you.

The water was secretly poured into one of the sacred pots at the chief's residence. The pot was stored separately from the other pots. Good rains then fell.

- **Phato** = around December. This was the month when the worms ate the corn. There was a special diviner who dealt with this problem (*xo upa*). The diviner, at the request of the chief, called in the small boys and provided them with *upa* medicine. The boys ran around and lit fires in all the fields. No man was permitted to go into the fields during the two days in which this ritual took place.

- **Lexobyê** = about January. This was the great season of the year when the new year was 'bitten' (i.e. the time of the Feast of the First Fruits), where *loma* means 'to bite the first fruits'. There was a substantial feast when fresh vegetables, pumpkins (marrows), sugar cane (sweet-sorghum?) and other foodstuffs were consumed by the men. No one was permitted to 'bite the year' before the chief had done so. The chief called a meeting of all the men, with the diviners providing medicine for 'biting the year'. The medicine was given to all the headmen to give to each household in their respective areas. The medicine was mixed with marrows or green mealies. On the following day the young men took all the cattle out in the early morning, while carrying some pumpkins. The young men were the sons of the chief and other men of the royal household, whose function it was to approach the royal ancestors and to propitiate these ancestors at their graves. A slice of pumpkin was used for this purpose. The ancestors in this way bit the first crops, specifically the pumpkin, which was the ritual crop of the Feast of the First Fruits. A cattle race was held with the winning animal being praised in song by the people. The race was great fun and caused much amusement. The women usually trained their chosen cows or heifers by giving these animals a good feed of bran every evening. The animal came to know the sound of its owner's voice and ran to her when summoned. This calling procedure was repeated on the day of the race. Cattle, male goats and castrated male sheep were sacrificed and beer was strained. There was much eating, drinking and singing at this joyous time. The chief sat with the people and was acclaimed by songs of praise for his exceptional achievements.

No information given for February.

- **Semphêke-khothše (Don't give me any more I have had enough)** = March. This was a time when food was abundant. The birds must be kept away from the corn. It was the duty of the girls, who were supplied with medicine, to scare the birds away. The girls slept in the veld and washed in the river at dawn. This procedure took two days with the girls then returning home. The people were warned not to eat any food in their fields, and to eat standing up. Any failure in this regard meant that the medicine would not work, and that the birds would eat the corn.

- **Hlakola-dihlare (undressing the trees)** = April. This was the month when the women strained the thanksgiving beer (*masôhlô*). The beer was taken to the chief to thank him for the careful and kindly manner in which he had looked after his people throughout the year (Franz, 1931).

Version 3

Mönnig (1983) observed that the names and meanings of the 12 Pedi moons (*dikgwedi*) which approximate the months, as well as the associated seasonal activities, were amongst the most important cultural attributes taught to the Pedi youth. The months and seasons in previous times were not fixed, and varied within certain limits according to the progress of the agricultural year, and therefore the rains on which everything depended. Subsequent changes have resulted in a more precise relationship between agricultural periods and particular months and seasons. The Pedi were well aware of the type of agricultural labour required when a specific New Moon was seen. Every Moon had more than one name, each of which was linked to natural events which usually occurred when the given Moon was visible. The Pedi year began in May. This was the optimum time for the first session of initiation to take place due to the availability of food from the harvest. There were three distinct initiation sessions, two for youths and one thereafter, for girls. The period for all three sessions lasted for 1–2 years. The month of May and the associated initiation ceremonies was used to determine the interval between initiations, with several years separating the beginning of one initiation and the start of the next.

- **Mopitlo (the separator)** = May. This month finally separates summer from winter and is the first month of winter. The first harvesting of the corn takes place in May, which is a time of abundance. The agricultural season comes to an end, with many opportunities for leisure, feasting and enjoyment.
  - *Šiša-šebo* (from *šiša* = an udder full of milk and *sešebo* = a relish or side-dish). Food is plentiful.
  - *Hlokola* (to de-cob maize). The maize has been harvested. The grains are removed from the cobs and stored for future consumption.
  - *Lefolwane* (the small threshing). Harvesting of corn is begun and threshing is imminent.

- **Moranang (the master: ke moranang wa kgomo tša badiši, a o maruru a o marutho?)**. It is the master of the herd-boys' cattle who is asking, are you cold or are you warm? = June.
  - *Moragang* (What is behind? *Moragang wa pelo tša badiši o a fiša o borutho?*). What is behind the hearts of the herd-boys, who co-operate for warmth? This, and the previous name of the month, refers to a cold wind which usually blows at this time of the year, forcing the young herders to find shelter. The month is likewise appropriate for starting initiation ceremonies involving amongst others, these herders.
  - *Lefolo* (the main threshing). Most of the corn will be threshed in this month.
  - *Mopitla* (the stingy one: *Mopitla o putla marega le lehlabula*). The stingy one avoids sharing during winter or autumn. This statement implies that there is currently not much food to be gathered. Those who were too idle to work in summer cannot expect to have food at the time of harvesting and in winter.

- **Mosegamanya (the moon that cuts disappointment: Mosegamanya, sega manya, di je taleng, masega manya se huele)**. To cut disappointment they eat the green things, the disappointer that blows = July. This is the last month of winter. The month

'cuts' the disappointment of winter, when trees and shrubs first begin to exhibit their new foliage. An important tree in this regard is the Black Monkey Thorn or Swartapiesdoring (*Acacia burkei*) Northern Sotho = *mongana*. The cattle, which have become very thin in winter, start to eat the greenery.
  - *Hlakola-dihlare* (the taker away from trees). The last deciduous trees lose their leaves.
  - *Lefolwane* (the small threshing). The threshing is completed during this month.

- **Ngwato a bošego (Ngwato a praise name of the night: Ngwato a bošego, marula ke pelo tša bang)**. *Ngwato* of the night who is consoled by the hearts of other people = August. The month of spring which consoles (lifts the mood) of the people. Creatures which hibernate in winter are seen once more. Care should be taken at night to avoid snakes which may be crossing the roads.
  - *Matšema a rerwa* (working parties are discussed). People must begin to prepare themselves for the new agricultural season.

- **Phupu (the searcher: Phupu e fuputša dipeu tša Selemo)**. The searcher looks for the seeds of summer = September. The people must make ready to sow. An important indicator tree is the Common Wild Pear or Gewone Drolpeer (*Dombeya rotundifolia = D. densiflora; D. multiflora*) Northern Sotho = *mokgoba*, which begins to flower in this month and is a sign that ploughing time has arrived. The doctoring of the seeds ceremony, which introduces the new season, is held. Eagles 'come out of hiding' at this stage of the year.
  - *Morenane* (the ruler: *Morenane wa pelo tša balemi*). The ruler of the farmers' hearts. This is the first month of both ploughing and summer when rain can once again be expected (a happy event).

- **Phato (the moon which bursts: Phato phatola dihlare)**. The one who bursts, cracks the trees = October. The branches of the trees are filled with 'new juice' (i.e. sap). Branches (poles) cut down at this time are said to burst when drying. Nature itself shows renewed vigour.
  - *Mangwetše* (mother-in-law: *Mangwetše a mogale, selemo-lehlabula*). The strict mother-in-law of summer and autumn. There is a great deal of work to be done in the lands from this time onwards. Mothers-in-law keep their daughters-in-law busy with agricultural duties from the ploughing season until the end of the harvest.

- **Lewedi (the fall: Lewedi le phalana)**. The birth of the impala young = November. Many antelope calve at this time. The dung beetle (*khukwanyane*) also appears. These events are signs of rain.
  - *Ngweta* (an unidentified insect: *Ngweta bošego, ke a fofa*). This nocturnal insect is now to be seen flying around. The description may refer to fireflies: see Beyer (1919) above.
  - *Diba-tsela di phalala* (the fountains of the road are overflowing). Much rain is expected at this time of the year.

- **Diba-tsela (fountains of the road: Diba-tsela ya tholwane)**. Fountains of the road of the kudu = December. The kudu drop their young in this month and are trapped by

hunters. The term 'fountains of the road' implies that many edible plants bear fruit at this stage. People can therefore eat wherever they walk.
  - *Kobaobi* (one who does damage). People break the branches of trees in their attempts to pluck fruit. The anticipated rains will damage houses and wash away roads.

- **Nthole (take off: Nthole dipeu di leswe)**. Put down and leave the seeds = January. All sowing should now be completed. The first produce especially melons and pumpkins are harvested. The Feast of the First Fruits (*go loma ngwaga* or 'to bite the year') must be held.
  - *Mma-nthole* (take off mother). The mothers of girls help their daughters to remove the heavily laden baskets of produce, harvested from the lands, from their heads.
  - *Phato-masohlo* (the first green maize cobs are broken off and eaten).
  - *Legobye* (the shaker: *Legobye la mpa le modula*). The shaking of the belly of grass. Both the grass and corn are swelling and coming into seed.
  - *Sedimo-thole* (the sacrifice of a heifer). The people thank their ancestors (*badimo*) for the harvest by offering up the fruits and produce of the lands: *go rola thaka-ngwaga*. A heifer is not actually sacrificed, with the name referring to the importance of the thanksgiving sacrifices of all the first fruits.

- **Dibokwane (caterpillars)**. The edible caterpillars are to be found at this stage = February. The caterpillar is seemingly the larval stage of the Mopane Moth or Mopanie Mot (*Imbrasia belina*), which after evisceration and drying, is regarded as a delicacy. This is a time of plenty. The fruit of the Marula or Maroela tree (*Sclerocarya birrea* subsp. *caffra* = *S. caffra*) Northern Sotho = *morula*, ripens.
  - *Semphe ke khoše* (Give me no more, I have had enough).

- **Pherekgong (the exact meaning of the word is unclear, but it indicates the time when beans ripen, and there is much produce from the lands)** = March.
  - *Tswele-šweu* (the white breast [female]). The maize cobs are now white in colour and start to hang like breasts. Young boys and girls must remain on the lands to chase the birds away from the ripening corn crops.

- **Hlakola (one who takes away: Hlakola ke mogale o raga ka sefularo)**. The strict one who takes away things is kicked from behind = April. [The name may refer to the fact that all traces of summer are gone, and that it is now almost winter.]
  - *Hlakola mohlakolane matšepe mogale o raga ke sefularo* (the strict one who takes away the hoes is kicked from behind).
  - *Lefolwe* (the small threshing). The first harvesting and threshing of the corn is begun at this time (Mönnig, 1983).

A description of the Feast of the First Fruits of the Lovedu or Lobedu, which was held in about January, is given in Krige (1931). See also Krige and Krige (1980).

Southern Sotho (Basotho) moons

The months of the modern Basotho calendar are listed below, as per Christeller (1994). M.A. Moleleki, who provided additional information on the months, observed that the

Basotho did not have a 13th month. It is again evident that the months and associated activities reflect the passage of the seasons. A slightly different orthography regarding the names of the months and certain other terms can be found in Paroz (1961).

- **Phatò** ('to dig') = August. This was the first month of the Basotho historical year. The wind is strong in this month and digs (excavates) holes in the ground.
- **Loetse** ('to be stronger') = September. The year, which started in August, is now becoming stronger.
- **Mphalane** ('the small impala') = October. Impala or Rooibok (*Aepyceros melampus*) are born in this month.
- **Pudungwana** ('the small black wildebeest') = November. Black Wildebeest or Swartwildebees (*Connochaetes gnou*) are born at this time of the year.
- **Tshitwe** = December. A small insect which is present in the willow trees and is heard singing (i.e. the cicada).
- **Pherekhong** ('black soot on the maize stalk') = January. The maize now exudes black soot. This is presumably a reference to a type of fungal disease (i.e. smut).
- **Hlakola** ('to wipe off') = February. The pollen of the millet drops off in this month.
- **Hlakubele** ('the stem of a millet plant') = March. The stem of the millet becomes strong at this time.
- **Mmesa** ('to roast') = April. Maize from the fields is roasted and eaten in this month.
- **Motsheanong** ('the one that laughs at the birds') = May. The ears of the millet are now too hard (mature) for the birds to eat.
- **Phupjane** ('a small heap') = June. The wind begins to blow and soil forms in small heaps.
- **Phupu** ('a bigger heap') = July. Larger heaps of soil, due to the action of the wind, start to form.

A traditional (although still current) version of the Basotho months as per Tsepa (2008) is outlined below. The months are based on those described by Casalis (1861). Casalis indicated that there were 12 Basotho moons. Each New Moon was closely observed, commented upon and named, although the moons in reality were 'always out of order'. Casalis used the example of September, the time when work in the fields commenced. A natural event which should occur in September, however, was not apparent until October. Considerable discussion then ensued. Some perceptive men asserted that there was a Moon without a name (i.e. a 13th Moon). The moons, after much debate, were left to themselves. Recourse was instead made to the condition of the atmosphere and the state of the vegetation as the signal to begin hoeing. A number of chiefs rectified the calendar at the summer solstice, which was known as the summer-house of the Sun (Casalis, 1861).

- **Loetse** = September. The Basotho year begins with the start of the planting and growing season in September (Tsepa, 2008). Certain agricultural ceremonies are held in this month, specifically: the 'taking out the plough' ceremony and the selection of the seeds ceremony. The latter (a ritual) concerns the seeds to be planted in the new season, and is of considerable importance since yields and thus prosperity depend on appropriate seed selection. The actual selection of seeds, depending on the type of crop, takes place prior to the harvest and during the harvest (i.e. the appropriate time to choose seeds). The selection of sorghum seeds for the following season is undertaken later in the year when the seeds can be inspected on the sorghum heads. Songs are sung while planting and hoeing sorghum because 'the growing sorghum likes to hear' these songs. Songs are also sung while working in the lands in general. [Scully (1931) briefly described several traditional tunes from Lesotho, a few of which were sung or perhaps played on a simple musical instrument while working (possibly in the gardens or fields).] The grass in the pasturage starts to grow and warm winds are evident. The little birds (*mamotintinyane*) return and are heard singing. The people appreciate the bird-song.

- **Mphalane** = October. The name of the month refers to a 'kind of iris, which grows at this time'. The planting of sorghum, maize and vegetables continues.

- **Pulungoana** = November. The name of the month is derived from the 'fawn of the gnu' and is the time when these animals give birth to their young. The first hoeing of the sorghum and maize (to remove weeds) takes place in this month. Turnips are harvested.

- **Tsitoe** = December. This month is named after the *tsitoe* (a type of 'cricket') which makes a great deal of noise in December. Children run around on the soft ground and rejoice in hearing the sounds of the *tsitoe*. The children have energy and are alert because food is now plentiful. The second hoeing of maize and sorghum is undertaken, and further vegetables including spinach are harvested.

- **Pherekhong** ('Moon of the Coverer') = January. The sorghum begins to come into ear. Huts are erected to shelter those who must protect the ripening crops from the birds.

- **Tlhakula** = February. The sorghum grains start to emerge from the husks. The ears of the maize are now clearly evident, although very small. Rain in the form of thunderstorms is a feature of this month, together with hail (Tsepa, 2008). Diviners (*dingaka*) protect the crops from hail by using a specific medicine (Tsepa, 2008; Pepin, 1996). Songs are sung in the fields during February and March because the sorghum crop is now developing seed (Tsepa, 2008). Such songs are to keep the birds away from the unripe sorghum. One song is named after an especially troublesome bird (the *molepe*). Sechefo (1909) described this bird as 'black and red long tailed'. The bird is evidently the Red-collared Widowbird or Rooikeelflap (*Euplectes ardens*) and/or the Long-tailed Widowbird or Langstertflap (*Euplectes progne*). Both (adult) species are black in colour with a splash of red, have long tails, and are resident in Lesotho (Sinclair and Hockey, 1996).

- **Tlhakubele** = March. The time of the ripe sorghum.

- **'Mesa** ('to light') = April. Fires are now kindled due to the chilly mornings and evenings. The sweet-sorghum or *ntsoe* is ripe (Tsepa, 2008). Phillips (1917) indicated that the sweet stem of this plant is chewed in autumn. Ears of green maize are boiled or roasted (Tsepa, 2008).

- **Motseanong** ('warbling of birds') = May. It is cold with winter at hand. The little birds or *mamotintinyane* warble through the valleys searching for food and shelter.

- **Phuptjane** = June. *Phuptjane* is the diminutive of *phupu*. The latter is the name of the fully developed (ripe) maize plant. The diminutive is used here to indicate that the maize is not yet mature. Threshing floors are prepared and winnowing of the sorghum commences. A popular dish (*nyekoe*) consisting of a mixture of maize, sorghum, beans and pumpkins is eaten in this month. A non-alcoholic drink as well as beer is made from sorghum.

- **Phupu** = July. The maize is now ripe and is harvested. The grain is stored in a large dome-shaped basket or *sesiu*, which is impervious to rain. Maize seed for the following season is selected at this stage of the year.

- **Phato** ('hidden') = August. The pasturage of the previous season is now so dry that the cattle refuse to eat the grass. The new growth of grass is still too short for the cattle to graze on. The cows have no milk or 'hide' the milk according to the old people (Tsepa, 2008).

A traditional variant of the 12 Southern Sotho moons or months can be found in Sechefo (1909; 1910). A more concise description of the agricultural cycle is available in Ashton (1967). The data as per Sechefo are given below:

- **Phato** = August. This was the first month of the traditional Basotho year or *selemo*. The latter word has three meanings (spring, plough-time and year). *Phato* was greeted in the following manner:

  The sturdy outrageous Phato *(August)*
  Bubbling, puffing and whiffing the deep,
  Shepherd-boy pines not anxiously,
  For the going out a-herding.
  Your months (time) for a-herding still come
  There still come July and May.

  This harsh and dull month was the time when water sources (dams, streams and rivers) were full of dead leaves and 'straw' (field debris). The water surfaces were covered with thick dust as well as black soot from the grass burnt for veld management purposes. Bitter winds carry the soot and dust into the water. The shepherd-boys were warned about this bleak time while guarding their flocks and herds. The shepherd-boys, nevertheless, should remember that there are better months for undertaking their pastoral duties, such as the recent month of July and the month of May still to

come. The warning about August as an unpleasant month was mainly applicable to the younger shepherd-boys who were anxious to start their work. The younger herders were advised to wait for the warmer months. *Phato* was the time to 'inoculate' and sprinkle medicinal charms over the cattle, and was also the time for people to take medicines by means of a 'vaccination', in order to end the old year in a fitting manner and to welcome the fresh new year. [Ashton (1967) states in this regard that the people and the leading animals of their herds were both vaccinated, i.e. scarified. The same medicine was used for man and beast. The term for vaccination or scarification is *ho phatsa*. This, and other procedures, anticipated the new agricultural season.] Plants at this stage begin to emerge from their period of winter dormancy, with some appearing above the ground. The tiller (*molemi*) or ploughman must prepare for the tilling of the soil and the sowing of the seed. The seeds were those of *mabele* (corn) and maize or *poone*. These two crops were the staple diet in the old days, along with a few vegetables such as *mokopu* (marrows); *linaoa* (beans), melons (*lehapu*) and sugar cane (i.e. sweet-sorghum) or *ntsoe*. Wheat (*koro* or *moseeka*) is a more recent crop (Sechefo, 1909).

- **Loetse** = September. The month of September was welcomed in the following way:

The hammered September of the whey.
(when) The up-goer in September
Goes only for milk sake,
Seeing the rich milk-cow teat-swelling;
The shepherds of the green are blacknosed.

Sechefo (1909) explained the above terms thus: Thick milk or *noto* refers to milk which has been 'hammered'. Whey or *hloea* is described as 'already having thick milk'. An 'up-goer' (*ra-setla*) is a shepherd-boy who is late in going to the mountain cattle-post. 'Teat-swelling' or *lusa* means that the cow is about to calve or is calving. September is a much happier time than August. The diligent shepherd-boy has already made his way to his mountain cattle-post, notwithstanding the unpleasant weather in August. These cattle-posts are in the high mountain ranges, as opposed to the 'ordinary' mountains which consist of large outcrops of bare rock and which are elevated above the general terrain. The high mountain ranges are covered from the base to the summit with grass. The early arrival of the shepherd-boy has been rewarded since he has taken his cattle to the better and richer pastures (before the late-comers can claim these pastures). The cattle of the industrious shepherd-boy are accordingly in good condition. This shepherd-boy has built a temporary hut of branches for himself and a stone enclosure for his cattle. The shepherd-boy, because of his foresight, now has a supply of fresh milk as well as thick (hammered) milk. Shepherd-boys who go to their cattle-posts in September are insulted by the accusation that they have only come for the sake of having milk, rather than for the good of their cattle. The early-arriving shepherd-boy has the pleasure of seeing his cattle calve, given his sense of duty in coming to the mountains in the foul month of August. The name of September (*Loetse*) is derived from the word *loetsa* meaning 'to anoint wounds with fat' or 'to syringe the ear'. *Loetse* therefore means 'anointer'. The cattle, grass, plants and fields are being

'syringed and anointed' via the 'sweet oil' or fat of tenderness. All are soft, flexible and tender. There is a sense of awakening and of rising up (such as the cattle calving). The hillsides and warmer spots show evidence of greenness. The new growth of the burnt grass is apparent. The growth of the grass is greeted with joy and is spoken of as: 'The grass is showing pup-teeth'. The analogy here concerns the blades of grass which stick out in a manner resembling the sharp teeth of a puppy. The reference to shepherd-boys being 'blacknosed' relates to the soot from the burnt grass which is blown about by the wind, and which covers the faces of the shepherd-boys. The shepherd-boys, when wrestling with each other and falling to the ground, likewise have their faces blackened by the soot. The cattle also have black noses from grazing the veld. The term 'anointer' further relates to the leisure activities of the shepherd-boys. They are now able to take exercise either by running, bathing or swimming which was not possible in winter. The shepherd-boys are brisk and fit and have an ample supply of milk. The milk is so plentiful that the shepherd-boys can wash themselves with warm fresh milk which makes the skin fine and clean. The hardy month of *Phato* has thus been anointed and sweetened by *Loetse*. This can be seen in the soft, pleasant conditions prevailing in the animal and plant world, and in the general air of renewal in September (Sechefo, 1909).

- **Mphalane** = October. The month of October is greeted by the expression: 'October of the leshoma-plant' or '*Mphalane ea leshoma*'. This medicinal plant is the true indicator of October. The plant is the Fan-leaved Boophone/Poison Bulb/Sore-eye Flower/ Tumblehead or Gifbol/Perdespook/Seerooglelie (*Boophone disticha*) Southern Sotho = *kxutsana-ya-naha; leshoma; lesoma; motlatsisa* (Pooley, 1998). It is in this month that the leaves of the plant emerge from the enlarged stem. (The plant resembles a small cycad.) Any disputes or contradictions (*likhang*) about whether the month is indeed October are quickly settled in the *khotla* (the meeting place of the men or chief's court) and elsewhere by observing the emergence of the leaves of the *leshoma*. A different interpretation is that the name *Mphalane* comes from the word *liphalana* meaning 'glitters'. The 'glitterings' of the warm Sun are seen when looking over the far plains. The fields sparkle and glitter and appear to dance under the brilliant Sun. [What Sechefo (1909) is perhaps really describing is the clarity of the air following the spring rains. The rain, in essence, has removed dust and other particulate matter from the lower atmosphere.] Another interpretation of the name of the month refers to the circumcision rites of the girls (*lebollo la bale*). It is in this month that such an event took place. The elderly women who supervised these rites walked around the village blowing the *liphalana* pipes or flutes which were made from the stalks of the *mabele*. The girls, dressed in their best clothing, went down to the nearest stream or river for this important ceremony, which lasted for a minimum of three days. The men were only permitted to attend the ceremony on the last day when meat was prepared and beer was consumed. The (by-now) well-fed shepherd-boys made a point of visiting their friends at other cattle-posts during this month. The hunters, like the shepherd-boys, were alerted to the fact that it was this specific time of the year by the leaves seen on the *leshoma* plants (Sechefo, 1909).

- **Pulungoana** = November. The month of November was greeted as: '*Pulungoana 'a tsoetsoana*' or 'November of the young gnu'. The word *pulungoana* is the diminutive of *pulumo* or 'gnu', where *pulungoana* means 'young gnu'. The antelope is the Black Wildebeest or Swartwildebees (*Connochaetes gnou*). It is at this stage of the year that the antelope bring forth their young. Both the shepherd-boy and the hunter in the uplands came across evidence of the calving of the wildebeest when they saw the afterbirth of these animals in the veld. The San (*Moroa*), in the very old days, also observed the same birthing process. Hunting was a popular pastime in this month (Sechefo, 1909).

- **Tsitoe** = December. *Tsitoe* is a tiny 'grasshopper'. This month was sometimes known as *Tsitoe ea sehlohonono*. It was at this time that the *tsitoe* was seen flitting around the fields and under the shady branches of trees. The insect emits a fizzing, hissing and twittering-like sound, unceasingly crying out: '*Tsitoe! Tsitoee!! Tsitoeee!!!*' The *sehlohonono* is an insect resembling the *tsitoe* and precedes the latter in the fields. The appearance of the *sehlohonono* (which also hisses in the fields) warns the people that the month of *Tsitoe* will soon be evident. The *sehlohonono*, which does not sing so sweetly, vanishes when the *tsitoe* is seen and heard. The *tsitoe* remains until the end of January. The *tsitoe*, according to Casalis (1905), is the cicada.

- **Pherekhong** = January. The name of January appears to be a loan-word (in part) which is derived from the Tswana. *Phera* in Setswana or *Fera* in Sesotho means to 'interjoin sticks' or 'put up rafters to a house'. The word *khong* is a Setswana word for 'sticks' or 'wood'. *Pherekhong* (more accurately spelt as *Phera**a**khong*) thus means to 'interjoin sticks'. January is greeted as follows:

Pherekhong *of the* maphephe,
Of the mildew.
Of the bean … fetching marrow shoots.
The greenness of the mabele *increases*
That of the grass decreases.

Reference is made above to the joyous anticipation of the approaching season of autumn and the fruits of autumn. 'Basotho black beans' (possibly cow peas) are ready and will soon be harvested. The 'fresh mildew' can be plucked and eaten, either raw or cooked. It would appear that Sechefo (1909) in the latter instance means the leaves of the bean plant which can indeed be eaten. The shoots of the pumpkins, also edible, look promising. The *mabele* crops in the fields are much greener than the surrounding veld grass. This grass shows signs of a yellowish colour due to the advanced summer season. It is time to think about constructing watchers' huts (singular = *lephephe*; plural = *maphephe*) in the gardens. These temporary summer huts are constructed using planted sticks joined together and are covered with thatching made of grass or weeds. The hut serves as a shelter from the rain or Sun for the *motsosi* ('bird-scarer'). The bird-scarer prepares his *lephephe* before it is required in the month of February, by which time the *mabele* will have formed small grains. Rain, usually in the form of mild showers or thunderstorms, is a feature of January. The state of the *mabele* crop indicates that it is the appropriate time to build the *maphephe* huts (Sechefo, 1909).

- **Tlhakola** or **Hlakola** = February. This month was signified by the phrase: '*Tlhakola molula*' or 'Wiping off the *molula*'. The last-mentioned word describes the state of the *mabele* crops when the tiny grains are still completely enveloped in the green husk. The term *tlhakola* or *hlakola* refers to the 'wiping off' of these husks. The grain, in other words, will emerge or burst forth from the husks in this month. The green grains will then become visible (i.e. protrude from the husks), hence the Sesotho name for February as *Tlhakola molula* or 'wiper of husks'. The birds are now a complete menace and every effort must be made from dawn to dusk to safeguard the crops from these avian pests (Sechefo, 1910). A *sefika* was erected in the centre of the garden or *tsimo* or in some other suitable spot, which allowed the *motsosi* (bird-scarer) to have a full view of the *mabele* crops (Sechefo, 1909). The elevated *sefika* was made of stones or soil, or usually clods of earth. The bird-scarer stood on top of this mound and repeatedly shouted at the particular species of bird or birds attempting to eat the ears of the *mabele*. The bird-scarer called out the Sesotho names of the bird species and continued to do so until the birds flew away. If this procedure failed then the bird-scarer used a second tactic, that of whistling loudly at the birds, while still shouting out their Sesotho names. Another method of scaring away the birds was to make use of a *tsoibila* (a thin flexible stick). A round ball of pot clay (*letsopa*) was placed on the end of the stick. The clay was flicked at the birds, killing a given bird or frightening away the entire flock. The bird-scarer, depending on the weather conditions, could only very occasionally seek shelter in his temporary hut or *lephephe* (Sechefo, 1909). The first task of the *motsosi* in the early morning was to light a fire using dry and green weeds (Sechefo, 1910). This fire was kept alight throughout the day. The purpose of the fire was to fumigate the crops with smoke (hence the green weeds), so that the watchful birds were aware of the constant presence of the *motsosi*. The birds were thus prevented from also 'wiping off' the crop. February, March and April were the busiest and most demanding months for the *motsosi*. A second reason for the name of the month (*Tlhakola molula*) is based on the word *molula* (Sechefo, 1910). *Molula* is a species of tall veld grass, perhaps Weeping Lovegrass or Oulands eragrostis (*Eragrostis curvula*) (Internet sources). A more likely possibility is that this grass is the Fan Lovegrass or Taaipol eragrostis (*E. plana*) (Phillips, 1917). The grass is used by shepherd-boys to plait Basotho-style hats, and by husbands to plait strong baskets for their wives (Sechefo, 1910). The tiny seeds of this grass were once used as an emergency source of nourishment during famines when the granary or *sesiu* was empty. The *molula*-grass is in full ear in February, with the seeds becoming ripe. The seeds of another grass were also used in times of famine, although these seeds are barely palatable. This grass, resembling *molula* grass, is known as *moseeka* (*E. chloromelas*) (Sechefo, 1910). The South African common names for the grass are Curly Leaf or Krulblaar (Internet sources). It is not impossible that the species is actually *E. curvula*, the seeds of which are known as *moseka* (Phillips, 1917). *Pherekhong* and *Tlhakola* were the months of starvation or famine when the crops were 'pleasing to the eye' but too green to eat (Sechefo, 1910). A certain expression ('When the hen evacuates dog-grass') was common during *Pherekhong* and at the beginning of *Tlhakola*. This expression was used in a sarcastic manner to refer to the period of hardship in January and February. The 'dog-grass' was then green and was eaten by the hen. This grass was the sole food available for poultry since the household granary was empty. The only foodstuff the

hen could evacuate (defecate) was the dog-grass or *mohloa* (Sechefo, 1910). Such grass is common around households, and is evidently *Cynodon dactylon* or Couch Grass or Kweek (Internet sources; Phillips, 1917).

- **Tlhakubele** or **Hlakubele** = March. The name of the month is derived from *tlhaku* or *hlaku* meaning 'grain' and *bele* which is an abbreviation of *mabele*: thus *Tlhakubele* or '*Mabele* in grains' (Sechefo, 1910). The grain of the *mabele* crop at this stage very clearly protrudes from the husks. The autumn winds occasionally knocked down some of the weaker *mabele* stalks. The thrifty housewife picked these stalks up, shortened the stalks, and inserted the short rootless stalks in the ground thereby allowing the ears to mature further. These stalks were removed after some time and threshed to obtain the grain. The grain was placed in water for a few days, removed for a day, and subsequently put into an earthen pot, prior to making strong beer. This 'fallen-down' *mabele* is referred to as *senkhoana* or *Ho loma senkhoana* meaning 'to bite' or eat the *senkhoana*. The latter term is also used to describe the green grain of the *mabele* in the field. A special (strong) beer or *joala* was brewed from the fallen-down *mabele* and was given to the parents of the owner of the *mabele* field (the land from whence came the grain under discussion). The beer was given to the immediate next of kin of the owner of the field, should the parents be deceased. The older people, in this manner, could 'bite' or enjoy the *senkhoana*. The younger people 'bit' the *senkhoana* in a different way, in the form of bread (likewise termed *senkhoana*). The bread was tasty, although heavy in weight. It was said of this bread that: 'It goes well with the throat' ('*Bo ea le 'metso*'). The meaning here is that the bread can easily be eaten with all kinds of milk, whether raw, boiled or sour (Sechefo, 1910).

- **'Mesa** = April. This month was commemorated as *'Mesa tseleng* or 'Kindling fire by the road side', where *besa* means 'to kindle the fire' and also 'to roast' (Sechefo, 1910). It is now the time of *phokana-hlohoana* or 'the first cold', a reference to frozen dew in the morning when winter is approaching. The early mornings are decidedly chilly and the *motsosi* sees that the footpath is wet with dew, while the tips of the grass have drops of frozen dew. The fingers and toes of the *motsosi* became numb with cold. The *motsosi* must 'kindle a fire by the road side' to warm his fingers and toes. There are several other bird-scarers also lighting fires to warm themselves before arriving at their gardens. Each *motsosi* carries a *sekhono* in his hand 'to catch and preserve the fire' as circumstances on the road or at the garden dictate. Sechefo (1910) described the *sekhono* as the 'tooaneplant' which is tightly interwoven together and which serves as tinder. The aromatic herb (*Helichrysum odoratissimum*) Southern Sotho = *imphepho; phefo-ea-setlolo; tooane* is one possibility in this regard. The leaves are pleasantly scented and are burnt to fumigate a sick-room (Pooley, 1998). A second candidate is the Cape Gold or Geelsewejaartjie (*H. splendidum*) Southern Sotho = *phefo-ea-loti; toane-moru*. This species, according to Pooley (1998), is a good fuel plant in the mountains. A third possibility is the Golden Everlasting or Gouesewejaartjie (*H. aureonitens*) Southern Sotho = *toane-ntja; toane-poli* (Pooley, 1998; 2003). Phillips (1917) stated that a stock of the latter plant was always found in Basotho homesteads, and was used as tinder to start a fire. The Basotho carried live embers home, between some branches, to start their own fires. A different interpretation of *besa* relates to the roasting of ripe

mealies, as in '*Batsosi ba e besetsa ruri*' meaning 'The bird-scarers roast it wholly and openly' (without fear) (Sechefo, 1910). This statement has reference to an earlier stage of the year when there were only a few ripe mealies. Anyone roasting such mealies did so furtively, without their neighbours (who were not so blessed) seeing what was going on. Even the evidence of this good fortune (the cobs and leaves) was hidden from prying eyes. The reason was that the happy man feared his neighbours, who envious of his good luck could become malicious, leading to accusations of witchcraft and the unwelcome attention of evil-doers (the *baloi*). Ripe mealies were common in April, however, and were in full supply everywhere. There was no need for secrecy since all were roasting mealies. A further interpretation of *besa* is linked to the manner in which the mealies were roasted. The person roasting his mealies was no longer particular about this action and became careless. He often overcooked the mealies on the fire, or forgot about the mealies altogether, resulting in a pile of ash. People who were so carefree were contemptuously spoken of as '*O besetsa poone ruri*' or 'Roasts his mealies too long'. Young boys and girls, at this time, threw roasted mealies at each for sport (Sechefo, 1910).

- **Motseanong** = May. *Motsea* means 'a laugher' while *nong* from Setswana is an old Sesotho word for 'a bird'. *Motseanong* therefore means 'bird-laugher' (Sechefo, 1910). The *mabele* crop is fully ripe in this month and the *mabele* appears to laugh at the birds. The grain is now too hard (fully developed) for the birds to remove from the husks. The birds can sit on the *mabele* as much as they like but cannot damage the crop. The exhausted bird-scarer is thus released from his onerous duties. The *mabele* crop resembles someone laughing and in so doing showing their teeth, just like the grain jutting out from the husks. The grain seems to laugh and mock the birds as if to say: 'You can no longer do me any harm' (hence the name of the month meaning 'bird-laugher'). The *mabele* crop, although ripe, was usually only harvested after being frost-bitten. The *mabele* grain was eaten and was also consumed in the form of beer. There are three types of beer: (a) *mochahlama* (a very sweet beer), (b) *leting* (light beer), and (c) *joala* (a strong beer). The latter beer is 'very strong' both as a food and as an intoxicant when ingested in some quantity. Only a few mature men, in the past, were permitted to sit next to the 'old drinkers' and drink *joala*, either in the *khotla* or in a secluded hut. These serious drinkers were not be molested by any of the 'non-drinkers'. Children, young men and other men ate bread and drank milk. Those desiring a drink made do with *mochahlama*. Sechefo (1910) indicated, however, that these social conventions were ignored over time, with widespread intoxication evident amongst the young men who drank *joala*. The stalks and ears of the *mabele* dried out after frost was evident, which saved the Basotho the trouble of spreading and drying the grain in the Sun before storage in the *sesiu* or large granary basket. This *mabele* was the highest grade (first class). The second grade of *mabele* was known as *talane*. Such grain, although solid and compact, was not fully ripe and was smaller than the highest grade. *Talane* was used for making tasty bread and wholesome savoury porridge ('pap'). Porridge made from both first class and second class *mabele* was favoured by women in confinement (those with very young babies). Grain of the second class was not used for seed. There was also a third class of *mabele* called *pulitsane* which consisted of the husks only with no grain (i.e. the grainless ears). This

class of *mabele* was used as feed for horses and cattle. There was, further, a fourth class of ripe *mabele* known as *phori*, which Sechefo (1910) termed 'mildew'. What is apparently being referred to here is smut-infected sorghum heads. The fourth class was likewise separated, threshed out by the women, and winnowed in the usual manner. The grain, so derived, was immediately placed in water to make beer. This infected class of *mabele* could obviously not be used for seed purposes. The careful grading of the *mabele* by the women ensured that each class was used in the most appropriate way. The harvest of the ears of the *mabele* was then in full swing. Every woman was busy reaping the crops, using a sickle and a basket, and was assisted by her daughter, niece or granddaughter. The men also helped with reaping. The ears were packed into baskets and taken to the threshing floor, where the grain was separated into the various classes. Some grain, when placed in the basket, became separated from the ears and fell to the bottom of the basket. Other grain, when thrown on the threshing floor, also became separated from the ears (without being threshed). Both these categories of grain were of considerable importance, and were regarded as a gift from the ancestors (*badimo*). Such grain was kept to one side of the threshing floor, while the delivery of the ears and the threshing thereof took place. This store of grain was added to, if there was an insufficient supply, by using pure *mabele* of the first class. The grain was used to make a special *joala* known as *leoa* ('falling or dropping') or *joala ba leoa* ('beer of the *leoa*'). The beer was given to the ancestors in sincere gratitude for the rich harvest. The ancestors were thanked with the same gift that they had secured for their descendants (the *mabele* crop). The officiator in the ceremony was the oldest living male relative who addressed the ancestors by their particular names. The officiator exclaimed: '*Pha-balimo re ja le eena*' where '*Pha-balimo*' means an offer to the gods as well as an offerer (one who offers to the gods). Sechefo (1910) translated this Sesotho phrase as: 'An offer to the gods we partake'; and 'An offerer (who offers) to the gods we partake with him'. A further explanation is: 'This offer offered up to the gods has to be liberally partaken with those who are present'; and also 'The offerer himself partakes this offering with the giver'. The beer was stored in a large earthen pot and was placed in a recess in the hut, in the name of the intended ancestors. The beer had not been strained, with the husks still present. No one was permitted to touch the beer. The beer was strained at a later time once the ancestors had had their share (in practical reality via evaporation). The beer was subsequently consumed in one day by all the descendants then present, after the descendants had 'begged' the ancestors for the beer. The descendants formally thanked the ancestors once more before departing for their homes (Sechefo, 1910). Ashton (1967) discussed some reaping customs for the Batlokoa specifically. The women (when beginning to winnow the grain or to pour the grain into bags to take to the village) were required to face north east towards Ntsoanasatsi or Ntsoanatsatsi/Ntsuanatsatsi Hill, since 'it was there we used to live'.

- **Phupjoane** = June. The name of the month is derived from the word *zupuha* [*fupuha*] or 'swelling underground' and *phupjoane* which is the diminutive of *phupu* meaning 'beginning to swell' (Sechefo, 1910). *Phupjoane* ('beginning to swell') refers to a bulb known as *senya-rela-balemi* ('looking slyly at the tiller'). The bulb is so-named because it is starting to swell underground in this month, an occurrence noted by the early tiller or ploughman. It is probable that the medicinal plant under discussion is the Bugle

Plant (*Ajuga ophrydis*) Southern Sotho = *moonyane; se-nyarela* (Pooley, 1998). An older Sesotho spelling is *senyarela* (Phillips, 1917); which Pooley (2003) has accepted as the only Sesotho name for this plant. The *boleme* or breaking up of new ground (veld) must be undertaken much earlier than the usual ploughing of the fields (Sechefo, 1910). [Note that Paroz (1961) gives one meaning of the word *bolemë* as a 'piece of ground recently broken up'.] Breaking up land in the old days involved a pick or hoe, which was a lengthy and difficult task (Sechefo, 1910). The tiller must therefore make an early start in preparing his new *boleme* for tillage. A second reason for haste was to allow sufficient time for the turf to decompose, prior to seeding the soil. It was while the tiller was thus engaged that he saw the just-described (enlarged) bulb 'slyly peep' at him. This 'peeping' action was a sign to the tiller that it was the opportune time for him to break up the new land. The seed he would sow in the next two months would later begin to swell just like the bulb. The tiller related his observations concerning the bulb to the other men in the *khotla*. Not everyone in the *khotla* necessarily believed the tiller who was obliged to produce an example of the bulb to confirm that it was indeed appropriate to break up new land. The shepherd-boys were well aware of this stage of the year, since it was time to open the pasture grounds (*matobo* or *maboella*). These pastures were strictly reserved for grazing in winter only, and could not be utilized in summer. The closing or setting aside of such pastures began in December. The chief appointed a man from the *khotla* (often one of the headmen) to supervise this process. This person acted in the name of the chief and had to be obeyed at all times. He was at liberty to soundly beat any shepherd-boy who transgressed by grazing his cattle in the restricted area. The localities usually selected for the *matobo* or *maboella* were those containing grasses and other plants of economic importance (Sechefo, 1910). These included: (a) *lehlaka* (reeds) i.e. *Phragmites communis* (now known as *P. australis*) which is used for thatching and for making enclosures at homesteads (Phillips, 1917), (b) *loli* (rushes or sedges) i.e. *Cyperus marginatus* which is mainly used to make items such as baskets, mats, beer-strainers, ropes and hats (Sechefo, 1910; Phillips, 1917), (c) *mohlomo* (a grass) i.e. *Andropogon hirtus* or *Cymbopogon hirtus* which is mostly used for thatching huts and for making large grain baskets (Phillips, 1917), (d) *qokoa* (a grass) i.e. *A. auctus* or *C. auctus* which is said to be the best and longest-lasting thatching grass (Phillips, 1917), and (e) *moli* which is the generic Sesotho name for the *Hypoxis* spp. (Phillips, 1917). It appears that the last-mentioned species is the Silver-leaved Star-flower (*H. rigidula*) Southern Sotho = *moli-tieane* (Phillips, 1917; Pooley, 2003). The leaves of this plant are used to make strong and durable ropes (Phillips, 1917; Pooley, 1998). Another valuable plant which is used in the construction of huts and for firewood is *moru*, which Sechefo (1910) described as a 'little bush of trees', presumably a shrub. Note that *A. hirtus* and *C. hirtus* are old or incorrect scientific names. A more modern equivalent is *Hyparrhenia hirta*. Also outdated or incorrect are the names *A. auctus* and *C. auctus*. A contemporary equivalent is *H. aucta* (Internet sources).

- **Phupu** = July. There is little to say about July, which is a month of snow, ice and frost. *Phupu* refers to *Fupuha* or 'bulging out'. This term relates to below-ground bulbs and the stems of certain hardy plants. The stems and leaves of some of the early-flowering plants (in sheltered localities) are seen to be expanding, enlarging

and bulging. Sechefo (1910) mentioned plants such as *sehalahala; leholo, qeekoe* and *shoeshoe*. The latter plant could, on occasion, be observed with new blossoms in July. It seems that the plant is the Common Gazania or Bruingousblom (*Gazania krebsiana*) Southern Sotho = *mabone; shoeshoe* (the flower head); *tsikitlane* (the whole plant). The yellow flowers of this perennial herb open in bright sunlight and close at night, reopening the following day (Pooley, 1998; 2003). The fibre on the back of the leaves is rolled into twine to make skirts for young girls (Sechefo, 1910; Pooley, 1998; 2003). Such skirts, according to Sechefo, are known as *thethana* (formerly *tulu*). The time for picking the leaves of the plant for this purpose signified the month of July for the women (Sechefo, 1910). Phillips (1917) referred to *leholo* as the Sesotho name for *Aster filifolius*, a plant used for firewood. The current name of the plant is *Felicia filifolia* or the Fine-leaved Felicia or Draaibos/Wilde-aster: Southern Sotho = *sehalahala-se-seholo* (Pooley, 1998). Pooley (2003) gives the Afrikaans and Sesotho names of *F. filifolia* as Persbergdraaibos or Wilde-aster and *leholo; sehalahala* and *sehalahala-se-seholo* respectively. Note that the term *sehalahala* applies to several different species of plants, while the name *qeekoe* proved difficult to trace. Paroz (1961) gives the spelling as *qhëkwe* which refers to *Moraea setacea* (a flowering plant now known as *M. setifolia*). July was the end of the Basotho year (Sechefo, 1910).

Tswana moons

One probably fairly contemporary version of the months is presented here, followed by two (more traditional) variants. An older orthography is evident in Version 3.

Version 1

The 12 Tswana months, according to R. Pretorius, D.T. Cole and P.M. Sebate, are listed below:

- **Phatwê** = August. This month in the past was 'the one that starts the year' (the beginning of the Tswana year). The year knocks and says: '*Twaa! Twaa!* It is clean' signifying a new beginning, a new life. It is the time to start ploughing when the first rains (*kgogolammoko*) can be expected. The Tswana once regarded August as the first month of spring. August, nevertheless, is also the time of strong winds and clouds of dust.

- **Lwêtse** = September. The month of illness or *boloetse* when new life begins in spring, and there is much illness amongst the people and the animals. Winter is virtually over and the cold weather and frost is 'melting or dissolving' (*gakologa* means 'to melt or to dissolve', i.e. the name for spring). The 'frost' melts in the bodies of the people when the harshness of winter gives way to the joy of spring. D.T. Cole disagrees with the interpretation concerning illness or *bolwêtse*. [One possible explanation for September as the month of illness may involve the seasonal surge in sinus, chest and eye ailments at this stage of the year. Dust and grass, flower or tree pollen counts tend to be high during spring. Strong winds, especially in late winter and spring, carry these substances for long distances or stir up *in situ* sources of allergens. There is a marked increase in people suffering from allergic rhinitis (hay fever and sneezing) as well as asthma and allergic conjunctivitis. The last-mentioned affliction results in red, watery

and itchy eyes. Other sufferers may complain of skin rashes. It is put forward that these medical complaints may be pronounced in the drier areas occupied by the Tswana.]

- **Diphalane** = October. Also a month of spring. Rain falls, the veld grass begins to grow, trees come out in flower, and the happy sounds of animals and birds can be heard. This is the time when some animals give birth to their young and the birds are breeding or hatching their eggs. These sounds resemble the sounds of whistles or *diphala*, giving rise to the name of the month. According to D.T. Cole, it is in this month that the impala drop their young: hence *diphalana* or 'the young impala antelope [plural]'. The original whistles were made from impala horns although the relevant term now applies to any type of whistle.

- **Ngwanaitsêêlê** or **Ngwanatsêlê** = November. The start of summer when temperatures increase. The month when the young of many wild animals and cattle are born (*ngwana* = 'child' and *tsala* = 'to give birth' = *Ngwanatsêlê*). Another interpretation is that the name of the month refers to the plentiful supply of fruit in the fields. Children can pick the fruit that they desire: '*Ngwana itsêêlê*' where *itsêêlê* means 'to take for yourself'. D.T. Cole states that the name of the month is derived from *Ngwana-itsêêlê* meaning 'Child take for yourself, help yourself'.

- **Sedimontholê** = December. Summer is now in full swing. Vegetables, fruit and other crops are plentiful in the fields. The women need help when returning home from the fields, since their baskets are so full of produce. The baskets are balanced on the heads of the women. The name of the month reflects this procedure where *go ithola* means 'to take something off your head', hence *se di mo ntholê* or 'help me to take it off my head'. D.T. Cole maintains that the name of the month is derived from *sedimo* meaning 'ghost, unearthly creature' (a reference to the *badimo* or ancestors) and *ntholê* or to 'remove or take off [from my head] all the produce from the fields'. The harvest, certainly for the women of southern Africa, was not altogether a joyous occasion. Lloyd, Parr, Davies and Cooke (2010) have suggested that the repeated carrying of a heavy load on a person's head is linked to chronic neck pain. The month could also be of significance for this less obvious reason.

- **Fêrikgong** = January. It is very hot in this month. The Sun is fierce and even affects grazing as well as the grain crops in the fields. The intense heat of the Sun, it is said, causes the branches (wood) of the *mofiri* or perhaps the *mperifiri* shrub or small tree to become dry or brittle. The species could be the Bell Spike-thorn or Klokkiespendoring (*Gymnosporia tenuispina* = *Maytenus tenuispina*) which is a shrub. A further possibility is the Small Honeysuckle Tree or Kleinkamperfoelieboom (*Turraea obtusifolia*) which is a spindly shrub or small tree. The wood (*legong; kgong*) of the shrub or tree can be broken off without too much effort, and is highly sought after for making fires. The name of the month is indicative of this 'easy to harvest' feature of the species. The heat, it is stated, also induces snakes to escape from their holes in the ground. D.T. Cole indicates that the name of the month is derived from *fêra* or 'to bend fingers in counting' and the word for firewood *(di)kgong*.

- **Tlhakolê** = February. February is the month which 'cleans away' (*e tlhakola*) the heat or *mogote* of January. The grass recovers from the baking heat of the previous month. One result is that the wild animals again graze in the veld (*di tlaa fula* = 'they will graze'). This month is the beginning of autumn (*letlhafula*). According to D.T. Cole, the name of the month comes from *motlhakola* or the Common Guarri/Small-leaved Guarri or Gewone Ghwarrie/Fynblaarghwarrie (*Euclea undulata = E. undulata* var. *myrtina; E. myrtina*). The leaves of this shrub or small tree were once used as toilet paper to 'wipe off'. The expression is derived from *tlhakola* or 'to clean the anus', especially of a child, with the leaves.

- **Mopitlwê** = March. It is now autumn. Crops such as green maize and sweet-sorghum are maturing in the fields. Each child is able to eat until his stomach is very full (*mpa go pipitlelwa*). The beans are bursting with growth, and are said to be *pitlaganeditswe* ('full in their skins'). The grass begins to lose its green colour. D.T. Cole disagrees with this interpretation regarding March, although he did not provide an alternative explanation.

- **Moranang** = April. The growth (*marang*) of the crops slows down in this last month of autumn. The agricultural season is almost at an end and there is time for a degree of leisure. The summer rains are virtually over. A chill in the air, noticeably at night, is now evident. D.T. Cole disputes the interpretation concerning the growth of the crops or *marang*.

- **Motshêganông** = May. This is the first month of winter when the rain ceases and a strong southerly wind blows. The grass turns yellow, the trees shed their leaves, and small pans dry up. The larger pans hold only a little water. The name of the month refers to the fact that the grain crops are now mature. The crops are said to be laughing at all the birds (*dijala di tshêga nông*), since the birds or *nông* are unable to eat the mature ears of the grain crops. D.T. Cole states that the name of the month is derived from *tshêga* or 'to laugh at' and *nông*, an archaic word for 'bird'. The crops have been reaped and it is time to laugh at the birds looking for grain to eat.

- **Seêtêbosigo** = June. Low temperatures are now very apparent. Bitter cold results from the southerly winds (i.e. cold fronts). It is so cold that it is not really possible to travel at night (*go eta bosigo*), given that there will not be enough blankets available at other homesteads to share with visitors. A relevant Tswana proverb is: '*Moeng wa mariga o mo adima mpa, eseng dikobô*' meaning that one can lend a traveller a stomach (give him food) in winter, but not blankets. Frost and veld fires are characteristic of this month.

- **Phukwi** = July. This is the last month of winter and also the year when harvesting is nearly finished. The intense cold of winter begins to ease, particularly since there is a change in wind direction from southerly to northerly. Some rain might fall in this month. The people often expressed a desire for the year to come to an end so that a new beginning (year), when life starts afresh, can be enjoyed. The name of the month, as per D.T. Cole, is derived from *Phukwi maphukutsa-ditlhare* or 'July, the shaker off of leaves from the trees'. The name is linked to the wind and the dried out leaves.

The Tswana, historically, made use of 13 moons or months. One of the months was dispensed with in more recent times to conform to a western-style calendar (P.M. Sebate). The 13th Tswana Moon or month (*kgwêdi*) was *Morulê*. *Morulê* was approximately in December (D.T. Cole). The reference here is to the Marula or Maroela tree (*Sclerocarya birrea* subsp. *caffra = S. caffra*).

Version 2
Clegg (1986) provided the names for 13 moons. The months of January, November and December each have two Tswana names. The second name for December (*Morule*) is apparently that of the 13th Moon.

- **Phatwe** = August. The time of 'cracking in wood'. This term can be interpreted (a) as the period when wood 'cracks' to produce green leaves, or (b) as a warning to wood-carvers that it is now difficult to distinguish between dead wood and live wood. Wooden carvings may crack if live, unseasoned wood is used.

- **Lwetse** = September. *Lwaa* means 'sickness'. The clouds moving up and down are said 'to be sick'. Another explanation is that disease is common in this month.

- **Phalane** = October. The impala give birth at this time.

- **Ngwanatsele** or **Mosetlha** = November. The first interpretation is that even the children have plenty to eat at this stage of the year. The second name refers to the blossoming of the Weeping Wattle/Natal Wattle or Huilboom tree (*Peltophorum africanum*) Tswana = *mosêtlha* (Palmer, 1981).

- **Sedimonthole** or **Morule** = December. The end of the western calendar year. The second name relates to the Marula or Maroela tree (*Sclerocarya birrea* subsp. *caffra = S. caffra*) Tswana = *morula* which bears fruit in this month.

- **Hirikong** or **Molomo** = January. The first name refers to 'where the two years meet'. The second name (as in *kwedi ea molomo*) means 'first fruit taste of the year'.

- **Tlhakole** = February. The name relates to *motlhakole* or 'berries ripe'. The species is the Common Guarri/Small-leaved Guarri or Gewone Ghwarrie/Fynblaarghwarrie (*Euclea undulata = E. undulata* var. *myrtina; E. myrtina*). The red to purplish black berries are eaten by people, monkeys and birds (Pooley, 1993).

- **Mopitlwe** = March. Sorghum ripens (*mabele a a pitla*).

- **Moranang** = April. Beans ripen or *moranang wa hawa*.

- **Motsheganong** = May. The name of the month means 'laugh at the birds' because the sorghum grain is too hard to be eaten by the birds.

- **Seetebosigo** = June. One must visit at night in this month since the mornings are too cold. Alternatively, one must not visit at night because it is then too cold.

- **Phukwe** = July. The time of the cold wind (Clegg, 1986).

Version 3
The 12 months, as per Molosi (1924), are described below:

- **Phatwè** = August. *Phatwè* is associated with *hatola* or 'split'. This was the time when some trees shed their bark and fresh shoots (*matlhogèla*) were seen.

- **Lwetse** = September. The name of the month relates to *lwala* or 'sick'. A common expression in northern Botswana regarding the threatening appearance of the sky in September is: '*Maru a lwala*' meaning 'The clouds are sick' (i.e. the clouds are likely to bring rain). Sometimes one might hear the sentence '*ke lwala …*' meaning: 'I desire to have …' Rain clouds (cumulonimbus) make their first appearance at this stage of the year.

- **Phalane** = October. *Phalane* is the diminutive of *phala* or Rooibok. The impala calve at this time.

- **Mosètlha** = November. The name of the month refers to *sètlha* or 'yellow'. Molosi (1924) described a type of thornless acacia tree with yellow flowers which blossoms in this month. The tree is the Weeping Wattle/Natal Wattle or Huilboom (*Peltophorum africanum*) Tswana = *mosêtlha* (Palmer, 1981).

- **Morulè** = December. Reference is made here to the Marula or Maroela tree (*Sclerocarya birrea* subsp. *caffra = S. caffra*) Tswana = *morula*. The tree begins to form fruit at this stage of the year. The fruit falls off the tree when ripe and is used to make an alcoholic beverage. February is the peak season for the production of the fruit.

- **Mekōnō** = January. The word *mekōnō* is derived from *kōna* ('bend'). This was the month when the ploughing season was 'bent down' and weeding commenced. The season began in October.

- **Tlhakolè** = February. *Tlhakolè* comes from *go tlhakola* or to 'cast off'. The sheep cast off their old wool in this month. Sheep skins, used by dressmakers to make clothing, were collected in the winter months. The rams were allowed to mix with the flock at this time. A different version is that the name of the month has another form concerning *tlhagola* ('to weed') because this was the month of weeding.

- **Mopitlo** = March. *Mopitlo* comes from *go pitla* ('to make or be small'). This was the month in which the ears on the corn became evident, and when the stalks of the corn reach maturity. The word *pitla* sometimes takes the form *pitlagana* or 'crowded' and is used to mean 'muscular' or 'brawny'. The name of the month probably refers to the 'strength' and 'crowdedness' of the corn. Many people, however, believe that what is really being described is the top of the stalks swelling and becoming narrow, just before the ears are seen.

- **Moranañ** = April. *Moranañ* is thought by some people to be short for *Moranañ-oa-nawa*, from *moranañ* or 'train; procession' + *oa* (of) + *nawa* (the singular of *dinawa* or 'beans'). It is at this stage of the year that the beans (a creeping variety) begin to form their seed-pods. The species is the Cow Pea/Bachapin Bean or Boontjie/Koertjie

(*Vigna unguiculata*) Tswana = *dinawa; nawa-ea-setswana* (Fox and Norwood Young, 1983). A further explanation is that the 'procession' relates to certain worms which come out when 'everything is green'.

- **Motshèganoñ** = May. *Motshèganoñ* is derived from *tshèga* or 'laugh' and *noñ* or 'bird'. This Moon appeared when a species of hawk (*ñkgodi or mañkgodi*) was supposed to have hidden itself in the hollows of trees. Some such birds, nevertheless, were still to be seen when this Moon was visible. The 'bright disc' of the Moon was thought to smile scornfully at the tardiness of these birds in going into hiding. The alleged behaviour of the bird actually refers to its northwards migration, although the Tswana in the old days were unaware of this characteristic of the bird. The bird disappeared from the skies at a certain time of the year and was believed to have found refuge in trees. It is probable that the species is the Yellow-billed Kite or Geelbekwou (*Milvus migrans parasitus*) which breeds in South Africa in summer. See **Zulu moons** as per Faye (1923) above. Roberts (1942) gives one Sotho name for this bird as *mankholi*. More recent names are *mmankgodi* and *segodi* (http://focusonpictures.com/zuidafrika/vogels/vogel29.htm and www.shepherdstree.co.za). Both websites were accessed on the 11th of September 2010.

- **Etabosigo** or **Seètèbosigo** = June. *Etabosigo* is short for *Eta-bosigo-u-tshabè-mala*. The second name (*Seètèbosigo*) means: 'Don't travel in the night' and seems to be the correct name of the month. The explanation advanced for the first name (*Etabosigo*) is that those undertaking a journey in winter travelled in the middle of the night to escape the severity of the cold temperatures. The reasoning is that the middle of the night is not as cold as the early morning (dawn). It is explained further that *Eta* means 'travel' and *bosigo* means 'night'. The name thus means 'travel at night and escape frost'. Molosi (1924) believed that the original name of the month was probably *Seètèbosigo*, which over time, was changed to *Etabosigo*.

- **Phukwi** = July. *Phukwi* derived from *hukutsa* (to 'scatter or throw about as grain in search for something') is short for *Phukutsa-dihalana*, where *dihalana* is the diminutive of *dihala* or 'corn-bins'. The grain had been stored by this stage of the year. The corn kept in the small bins was the first to be consumed: hence *go hukutsa* which in this case means 'to empty' (Molosi, 1924).

Tsonga moons

Two Tsonga versions are presented here. The first refers to the Ronga, according to Junod (1927), and the second to the Shangaan specifically, as per Bulpin (1954). Entries marked with an asterisk indicate uncertainty regarding the actual western calendar month/s. Junod observed that knowledge of the individual moons or months was already decaying at the time that the data were recorded, and that it was virtually impossible to obtain such names from the southern Tsonga. A more northerly (Ronga) calendar is provided below:

- **Mudashini** = May or June. 'What am I to eat?' The month when so many different crops have been harvested that it is difficult to choose which one to eat, i.e. the time immediately after the harvest (Junod, 1927).

- **Khotabushika*** = June or July. The time when winter comes.

No data supplied for August and September.

- **Sunguti** = unknown but one of the months in summer.

- **Nhlangula***= October. The month when the flowers are swept (*hlangula*) from the trees. This is the time when certain trees blossom. One example is the Marula or Maroela (*Sclerocarya birrea* subsp. *caffra = S. caffra*) Tsonga = *nkanye* [plural = *minkanye*]. A second example is the Natal Mahogany or Rooiessenhout (*Trichilia emetica*) Tsonga = *nkuhla* or *nkuhlu* [plural = *minkuhlu*].

- **Ñwendjamhala*** = November. The month when the antelope or *mhala* bring forth their young.

- **Mawuwana** = December. The joyful month when the *tihuhlu* (almonds) are picked from the Natal Mahogany tree, and sucked. The almonds or nuts were of minor ritual significance.

- **Hukuri*** = also December. The month when the fruits of the Black Monkey Orange or Swartklapper tree (*Strychnos madagascariensis = S. innocua* subsp. *dysophylla*) Tsonga = *nkwakwa* are ripe. A paste or *fuma* (*nfuma*) was made from the flesh of the fruit (*kwakwa*) of this tree and was likewise of minor ritual importance.

- **Ndjati** or **Ndjata*** = January or February. 'I am coming', the time of *nwebo* or 'the time for the first ears of maize to ripen' when everyone is active in their fields eating the new maize cobs. Requests for attention or assistance are answered by: 'I will come directly! Have patience! I am busy here!'

- **Sibamesoko** or **Dwebindlela** or **Sibandlela** = February. The Moon which closes the paths, i.e. the time when the grass grows so high due to the summer rains, that it hides the paths leading to the *minkanye* trees. This is also the end of the *bukanye* time. The latter term refers to the ceremonial (first fruits ritual) and social consumption of the sour liquid or cider (*bukanye*) obtained from the first fruits or *makanye* of the Marula tree. The Feast of the First Fruits or *mulumo* (*luma* = 'to bite') was of vital religious significance, and ushered in the new year. No one could eat the first fruits prior to this ceremony. Sorghum (*mabele*) and the juice of the fruit of the Marula tree had the highest priority in the first fruits ritual. The fruits of this tree begin to ripen in January when the *luma* of the *bukanye* commenced. The time of drinking of the intoxicating *bukanye* was from mid-January to the end of February. The great or official *luma* ceremony amongst some Tsonga (the Ronga), however, involved *mabele*. The fine weather was over at the time of this Moon with winter 'knocking at the door'.

- **Nyenyana** or **Nywenywankulu** = March and April. The months of the birds or *nyanyana*. The birds must constantly be kept away from the fields of sorghum and millet (Junod, 1927).

The Tembe-Thonga of Maputaland (north eastern KwaZulu-Natal) still hold an abbreviated form of the first fruits ceremony in February each year. This festival is known as *umthayi* in Maputaland. The alcoholic drink made from the juice of the Marula is referred to as *ubuganu* in that locality.

The Shangaan calendar is descriptive of the late 1800s and early 1900s. The geographic area concerned is the far northern region of the modern-day Limpopo Province and adjoining areas in Zimbabwe and Mozambique. The months of the year were as follows:

- **Sheremela** = June. The month of hoeing when the agricultural year begins and the first cultivation tasks must be undertaken (Bulpin, 1954).
- **Konyane** = July. The month when the maize cobs in the storage huts are ripe, dry and golden.
- **Komkulu** = August. The month when spring is first apparent, i.e. the trees are just beginning to bud.
- **Sekanwane** = September. The month when the Marula or Maroela (*Sclerocarya birrea* subsp. *caffra* = *S. caffra*) or *mkanye* trees show their first flowers and people look forward to drinking the cider.
- **Kanamkulu** = October. The month when the Marula fruits are big, and the coming harvest can be judged in terms of the volume of cider which will be available.
- **iMpala** = November. The month when the impala drop their young and the bushveld seems to full of impala ewes and their lambs.
- **Nkokoni** = December. The month when the blue wildebeest gives birth to its young.
- **Hoho** = January. The month of laughter and festivity when the Marula berries are ripe and cider is consumed.
- **Mhlanga** = February. The month when the young grain, as the name suggests, is showing like reeds, i.e. tall, green and waving in the wind.
- **Jubamsoko** = March. The month when the rains, if they came at all, have turned the bushveld into a ‘green jungle’ with the trees and creepers covered in leaves. The paths are then overgrown with grass. The grass, as the name implies, must be ‘cut down’ to allow people to walk freely along the paths.
- **Mkwekwezi** = April. The pleasant month when the people can first ‘eat of the crops’ (the time of the first fruits).
- **Sandwela** = May. The month of reaping when everyone is busy in the fields gathering the reward for all their hard work. This included the ceaseless vigilance required to prevent wild animals from raiding the crops.

Bulpin (1954) observed that at certain times of the year virtually all the men were engaged in trapping the Small-spotted Genet or Kleinkolmuskejaatkat (*Genetta genetta*) or *simba*. This activity was particularly evident in April. The coat of the animal was 'highly regarded' by African dancers.

Venda moons

The first written listing in the English language of the 12 Venda moons was seemingly provided by Gottschling (1905), in terms of an older orthography. The lunar months, allowing for a difference in spelling, are the same as those given by Stayt (1931). The latter are described here, although the relevant calendar months are approximate. Stayt identified October (or the end thereof) and referred to the *phando* Moon as roughly corresponding with January. The various months are:

- **Tshimedzi** = October. This month, in which ploughing began, was the first month of the Venda year. This Moon appears when *tuda* or the 'giraffe' is in a certain position. *Tuda* consists of the two brightest stars of the Southern Cross (alpha and beta Crucis) as well as the two Pointers to the Southern Cross (alpha and beta Centauri). Refer to **Chapter 5** where Venda stars are discussed.

- **Lara** = November.

- **Nyendavhusiku** = December. The name refers to a type of locust, swarms of which appear in this month.

- **Phando** = January.

- **Luhuhu** = February.

- **Thafumuwe** = March.

- **Rhambamme** = April. 'Neglect the mother'. Children forget their mothers in this month since there is plenty of food.

- **Shundunthule** = May. The name is derived from *u nthula* meaning 'to take off' and *tshirundu* or 'basket'. The women, in this month, remove their baskets from their heads in order to fill the baskets with produce from the lands.

- **Fulwi** = June.

- **Fulwani** = July.

- **Thangule** = August. The name is derived from *u thangula* meaning 'to strip'. This is the month when the wind strips the leaves from the trees.

- **Khubvumedzi** = September (Warm).

Stayt (1931) observed that there was a 13th Moon which was incorporated into the Venda calendar every third year, to reconcile lunar months and the seasons. There was sometimes a lengthy discussion between the young men and the Venda elders when the New Moon

appeared after the end of the *thangule* Moon. The young men believed that this New Moon was the *khubvumedzi* Moon. The old men disagreed. The elders when asked for the name of the Moon invariably replied '*khangwa vhanna*' ('men forget') which is derived from *u hangwa* or 'to forget' and *vhanna* or 'men'. The debate continued for the entire month. If the old men were correct and it was indeed a year of 13 moons, then the argument continued into the following month. The debate ceased when the position of *tuda* revealed that it was time to plough. All could agree that the next Moon was *tshimedzi*. The controversial Moon was simply known as *khangwa vhanna*, and did not have a more specific name. The first Moon therefore, after *tuda* was in the required position, was always *tshimedzi*.

A slightly difference version of the Venda months, as equivalents to western calendar months, was provided by van Warmelo (1989). These months are as follows:

- **Thangule** and **Thangulana** = August. The first name refers to the leaves which are blown away by wind-storms at this stage of the year. This month was the beginning of the Venda new year. It was taboo to move a homestead or to consult a diviner (*mungome*) in this month. Van Warmelo (1989) described *thangulana* as a month which was retrospectively intercalated (inserted) after *thangule*, when it was evident that the lunar months were out of step with the seasons.
- **Khubvumedzi** = September.
- **Tshimedzi** = October.
- **Lara** = November.
- **Nyendavhusiku** = December.
- **Phando** = January.
- **Luhuhi** or **Luhuhu** or **Luhuhwi** = February.
- **Thafamuhwe** = March.
- **Lambamai** = April.
- **Shundunthule** = May.
- **Fulwi** = June.
- **Fulwana** = July (van Warmelo, 1989).

The various agricultural stages of the year were accompanied by specific work songs. Particular songs were also sung during major ceremonies and rituals (James, 1990). One example was the Feast of the First Fruits or *u lugisa zwitungula* ('to put right the sacred objects') or *u tevula* [*thevhula*] ('to pour out') which was essentially one of lineage (family). The ceremony thus expressed the unity of this important social grouping (Stayt, 1931). The process began with the *tevula* of the chief (*khosi*) and his lineage at his village, which was an occasion for national thanksgiving and festivity. It was only later that such ceremonies could be held by the headmen and the ordinary people in their own areas. There was no fixed time for the *tevula* ceremony. The chief announced the date of the ceremony

in May or June when the *mufhoho* (*Eleusine indica*) was ripe. The main ceremonial beer of the Venda was made from *mufhoho*. Recourse had to be made to other types of beer if *mufhoho* was not available. The significance of *mufhoho* was paramount in the past when any MuVenda who reaped this crop prior to the *tevula* ceremony was killed (Stayt, 1931). Further particulars of the first fruits ceremony can be found in Stayt. A detailed and probably more accurate description of the ceremony is available in van Warmelo (1945).

Khoikhoi moons

Schapera (1965) reproduced the following listing of 12 months which was recorded by Schultze (1907, cited by Schapera, 1965) from an old Nama woman in Namibia. Schultze stated that the traditional Khoikhoi calendar months had fallen into decay, and that the list had possibly been influenced by the western calendar. The order and the number of the months is according to the Nama informant.

- **≠kxoesao //kxãb** = January. This is 'the moon which follows upon the *≠kxoe* (*Salsola*) bush'. The plant is an important pasture bush 'having its principal flowering season in spring'. It is unclear which species of the genus *Salsola* is being referred to here.
- **gama /aëb** = February. This term was not translated.
- **!kxai tsãb** = March. 'When it begins to be cold'.
- **≠goro /nũseb** = April. 'The month of increasing cold, when one sits so near the fire that "the legs blister" '.
- **≠nu //kxãsa** = May. 'The "black month" comes in the time of drought, when the black branches of the stripped bushes give the landscape this character'.
- **/hai //kxãsa** = June. The term was not translated.
- **/kxu //kxãsa** = July. This is 'the "month of the Pleiades", which become visible in the latter half of June'.
- **hõarib** = August. This term was not translated.
- **!hoa ≠gaeb** = September. 'The month "when the leaves are curled up" by the cold'.
- **gai !kxani** = October. The term was not translated.
- **/goa !kxani** = November. This term was not translated.
- **/ho ≠gaeb** = December. The month is named 'from the fact that when, after the first productive rains upon the old and withered grass, the fresh young green shoots up, the meadows, *≠gaeb*, appear to be dappled, */ho*' (Schapera, 1965).

The first landing on the Moon and artificial satellites

It would be interesting to investigate the responses in the very remote rural areas of South Africa to the first landing on the Moon on the 20th of July 1969. The news was relayed by national radio and the press since South Africa, at that time, did not have television. Barbara Tyrrell described the reaction of an old Zulu man when she informed him of this unfolding

event. He looked up at the Moon in the early evening sky and sternly remarked: 'They are up to mischief!' (Tyrrell and Jurgens, 1983). It is evident that he strongly disapproved of man straying into the heavens, and being in a place where man had no business at all. A different viewpoint was expressed by a Zulu co-pastor at the Hermannsburg Lutheran Mission. The superintendent at the mission (Rev. F. Scriba) explained the Moon landing to his co-pastor. The co-pastor perceived the Moon to be some sort of vertically-inclined plate, and was concerned that the astronauts 'would fall off the top edge of the Moon' (G. Scriba).

The sighting of the first artificial satellite in the night sky (Sputnik I) which was launched on the 4th of October 1957 was thought by some G/wi in Botswana to be an ill omen (Silberbauer, 1981). Their impressions changed when no adverse effects were apparent. This satellite and subsequent satellites were then regarded as irrelevant by the G/wi at one locality. A series of mishaps at another G/wi settlement around the same time, nevertheless, was associated with satellites for a number of years. Such sentiment disappeared over time as more satellites were launched and seen in the sky. Only the passing of the satellites was noted (Silberbauer, 1981). Also of interest was the reaction of the !Kung in Botswana to the first artificial satellites. The !Kung elders believed that a star which moved in the manner of an artificial satellite signified that war was coming from the west and would spread to the east (Lee, 1984). It was thought that the white people had powerful *n/um* to make these stars move. The !Kung term *n/um* means medicine, energy, power, special skill or anything out of the ordinary (Lee, 1984).

Moon stories

The Khoikhoi and the San

Four Khoikhoi narratives or stories concerning the Moon are: *The Origin of Death*; *Another Version of the Same Fable; A Third Version of the Same Fable*, and *A Fourth Version of the Same Fable*. One Zulu story with a virtually identical theme is: *A Zulu Version of the Legend of the "Origin of Death"*. The stories can be read in Bleek (1864). The previously-mentioned book by Honey (1910) contains several versions of the source of death, with reference to the Moon and certain animals, which may have been derived from Bleek (1864).

Three northern San stories about the Moon and the origin of death are given in Fourie (1994). See: *Moon's and Centipede's Messages* as well as a variant known as *The Story of Hare and Moon* and *Why the Hare is Known as a Wise Animal*. Two Ju/'hoansi stories of interest are: *The Moon Dies and Lives Again* and *The Haregirl and the Moon*. Refer to Biesele [2010]. Guenther (1989) discussed four contemporary Naron versions of *The Moon and the Hare and the Origin of Death*. Four /Xam Moon stories are discussed in Lewis-Williams (2002). These are: *The Moon Not to Be Laughed At*; *Hunting with a Dog and Asking the Moon for Luck*; *The Moon, Moths and Game*, and *The Moon and the Hare*. Another story is: *Why the Hare's Nose is Slit* which is given in Metelerkamp (1914). Readers are reminded of the /Xam material to be found in *Specimens of Bushman Folklore* (**see Chapter 2**).

The Zulu

The story of *The Hyena and the Moon* was once known to most Zulu (Krige, 1950). A hyena carrying a bone in its mouth came down to a river. The hyena saw the beautiful reflection of the Moon in the water. The hyena promptly dropped the bone and tried to catch the Moon in the water, believing it to be nice, fat meat. The hyena tried again and again to get the Moon, but to no avail. While the hyena was so engaged, a second hyena appeared and took the bone. The hyena is much laughed at by the Zulu for its stupidity in throwing away that which was good, in an attempt to retrieve a useless and deceiving reflection. The story first appeared in Callaway (1868).

The Southern Sotho (Basotho)

Dornan (1927) related the following untitled Basotho story. It is said that there was once a great Basotho *morèna* or chief (Bulane) who had the sign of the Moon on his chest. Bulane had two wives, one of whom had no children. The wife in question eventually gave birth to a boy, who like his father, had the sign of the Moon on his chest. The second (other) wife acted as midwife. The mother of the child fainted during his birth. The second wife was horrified by the sight of the birth-mark, and threw the baby under some pots at the back of the hut. A mouse which had its abode (hole) there saved the baby. The second wife went out and found a puppy to replace the defective baby. She showed the puppy to the new mother when she regained consciousness, indicating to the mother what she had given birth to. The mother was greatly saddened by the sight of the puppy. The second wife informed Bulane of these events. He immediately ordered the puppy to be thrown away. The mother recovered from the birth, but sank into a depression resulting in her husband neglecting her.

At a later stage, the second wife entered the hut of the mother, only to discover the mouse playing with the child with the mark on his breast. The second wife was both surprised and frightened. She went to her husband stating that she was very ill, and that the divination bones had indicated that Bulane should burn the hut of the new mother, whereupon she (the second wife) would regain her health. The chief had the hut burnt down to please his other wife. The mouse, which had overheard the conversation, quickly left the hut taking the boy with him. The mouse went into a hole under the wall of the cattle enclosure or *lesaka* (plural = *masaka*). Some time afterwards the other wife went to the cattle enclosure to collect fuel to make a fire. There she saw the boy sitting under a cow. She was even more alarmed than before, and thought of some way to kill the boy. She approached her husband once again and pretended to be sick. Bulane asked her what the matter was. The second wife responded that she would never really recover from her illness until the cattle enclosure had been pulled down, and that the divination bones had said so. The chief duly had the cattle enclosure destroyed. The diligent mouse heard the woman's complaints. He then left the cattle enclosure with the boy. The mouse handed the boy over to some traders and went back to his own place.

A long time later, some of Bulane's subjects went to the traders to barter goods. There they saw a youth who had a mark of the Moon on his breast. They advised Bulane of their discovery on returning home. Bulane was intrigued and went to see the youth for himself. He asked the youth who he was, and how he came to be there. The youth explained that

when he was born he was discarded by the midwife, who replaced him with a puppy. A mouse took pity on him and saved him by taking him to its hole. The mouse, thereafter, brought him to the traders. Bulane, to confirm the story, compared the mark on his own chest with that of the youth. Bulane was convinced that the youth was his son and took him home with him. Bulane called a meeting of all the people and showed them his son. The chief informed the populace of the great wrong done to him by his other wife. The people were incensed and ordered the second wife and her children to be returned to her father, along with her cattle. The mother of the youth received much honour. Many cattle and nice clothes were given to her. A previous version of the story entitled: *The Moon-child* was published by McPherson (1919).

Another story with marked similarities to the above is that of *Morena-y-a-Letsatsi, or the Sun Chief* which can be found in Martin (1903). The chief in this case had the signs of the Sun, the Moon and 11 stars on his breast. The details of the story differ somewhat, although the central theme concerns a son with the same marks on his chest as the father, and who is separated from his mother at birth by the evil actions of the mother's sister. The mother is completely rejected by the chief for producing an ugly and deformed child with the face of a baboon (i.e. a substitute). The sister then becomes the wife of the chief. The new wife repeatedly tries to kill the child but is always thwarted by the ancestral spirits. Eventually the chief, the mother and the son are reunited. The son shows the chief the marks on his chest, convincing the chief that he is indeed his (the chief's) son. The second wife is very tenacious and is only finally got rid of when the chief calls down fire from the heavens to consume her, and a wind from the edge of the world to scatter her ashes. Even this is not the end and the chief is obliged to call in a diviner (*ngaka*) to remove all evidence of the wicked wife. This event occurs on the day that the chief remarries his original wife (the one who had given birth to the child with the signs on his breast).

It is unclear which of the two stories predates the other. Both, alternatively, are of much the same antiquity and are possibly the product of regional differences in story-telling or varying interpretations of a core concept.

The Venda and the San

Stayt (1931) referred to a Venda story entitled: *The Chief with the Half-moon on His Chest*. The story is virtually identical to the first Basotho story (Bulane), although the saviour in this case is a rat. Stayt (1931) speculated whether the Venda had obtained the story from the Basotho. Schoeman (1961) related a Heikum story known as *The Man with the Full Moon on His Breast*. The story is very different from the previous versions and involves, amongst other things, a form of marital infidelity. The story partly concerns the adventures of the man's son, who like his father, was born with the mark of the Full Moon on his chest. This story, in common with the other versions, has moral lessons.

The Xhosa-speaking people: the Bhaca

The New Moon plays a central role in a story by William Charles Scully, which was first published in 1895. The story is entitled: *Ukushwama* (Adey, 1982).

Riddles and other expressions associated with the Moon

The Northern Sotho

- A Tlôkwa riddle reads: '*Two old men are fighting in the sk*y'. **Answer:** 'The sun and moon'. Three Tlôkwa lunar riddles are: (a) '*My father's wooden dish carved by gods*' (b) '*Kolobere's liver*' and (c) '*The herd-boy's porridge is glittering*'. **Answer:** 'The moon' (Nakene, 1943). Note that the term *Kolobere* is sometimes used for the name of a beast or ox (P.S. Groenewald).

- Another Northern Sotho riddle is: '*I walk together with my friend, and when I enter my dwelling he stays outside*'. **Answer:** 'The moon' (Makopo, 1989). Two further riddles with the same answer are: '*My lamp burns at night, but not during the day*' and '*My lamp emits light without using paraffin*' (Makopo, 1989). Also relevant is: '*The whole area is white*'. **Answer:** 'The moon' (Makopo, 1989). Likewise of interest is: '*Something white on its stomach*'. **Answer:** 'A child of the moon' (Endemann and Hoffmann, 1927).

- Some Northern Sotho riddles incorporate guinea fowl and goats with the same response in each case ('The moon and/amongst the stars'). These are: (a) '*The white guinea fowl in between Tlabane's sheep*' (b) '*The white goat in the midst of ticks*' (c) '*The white ram of the sheep in the midst of the goats*' and (d) '*Our goat, Mmatšhwana, which grazes together with the ticks*' (Makopo, 1989). A different riddle reads: '*Bull, the grey headman, who glitters by belching when no clouds are visible*'. The answer again is 'The moon' (Makopo, 1989).

- Wooden dishes or bowls are a feature of certain Northern Sotho riddles. These include: '*The small dish of Tintose*' and '*Father's wooden dish carved by the ancestors*'. The answer in both cases is 'The moon'. A further riddle is: '*The small dish which is hung amongst the flowers*'. **Answer:** 'The moon and the stars' (Makopo, 1989). Somewhat obscure is this riddle: '*The white piece of wood in the wetland or valley, which is the plaything of the daughters*' [or the playground of the little girls or young daughters]. **Answer:** 'The moon' (Makopo, 1989). A slightly derogatory riddle reads: '*The English people think that they are clever, although they cannot carve out the round thing of the night*', which is of course, 'The moon' (Makopo, 1989).

- '*He who waits for the moon, waits for the darkness*'. The expression is a reference to someone who waits in vain for something to happen (Rakoma, 1962).

- '*Many things can be done in the dark, although moonlight exposes all*'. This is another way of saying that the truth will always come to light (Rakoma, 1962). A similar expression reads: '*A man who laughs at the moon, for him the moon will become dark*'. The explanation here is that a thief is one who is caught red-handed (Kuhn, 1929–1930).

- '*As the clouds cover the moon, so a person will experience trouble*'. A person who becomes used to something will experience difficulty when the removal thereof occurs (Rakoma, 1962).

- '*A visitor to a household is not aware of the circumstances and situation in that household, i.e. the problems of his hosts*' (Rakoma, 1962). This is perhaps just as well, since a visitor cannot become involved in domestic matters at the house which he is visiting. The Moon is invoked in the original Northern Sotho expression. A related set of circumstances is where a visitor or stranger in a village observes the flimsiness of the crescent Moon (after New Moon) and calls out: 'There is the moon!' The man, by this action, endangers his right of being offered hospitality (Hoffmann, 1931). The man should instead report his lunar observation to the head of the household, who will announce the fact. The visitor, in other words, has transgressed social conventions. A proverb states: '*A stranger does not proclaim the appearance of the moon*'.

The Southern Sotho (Basotho)

- One Basotho riddle is: '*A chief's counsellor*'. **Answer:** 'A star under the moon' (Hamnett, 1997). Another riddle is: '*A pumpkin in the middle of the field*'. **One answer is:** 'The moon' (Sesotho Online: Proverbs and Idioms (Maele) & Riddles (Dilotho) website, accessed on the 26th of December 2010. See: http://www.sesotho.web.za/ref1.htm.) A virtually identical riddle is given in Hamnett (1997): '*A pumpkin on a plateau*'. The answer again is 'The moon'. A variant is: '*The pumpkin in the meadow*'. **Answer:** 'The moon in the sky' (Norton and Velaphe, 1924). Norton and Velaphe explained that the Southern Sotho do not differentiate between green and blue colours.

- A Basotho proverb reads: '*The moon has completed the cake*', which refers to the fact that the work has been finished. Likewise of interest is: '*The clouds have not covered the moon*', which means that danger is imminent. Another Basotho proverb (see the first riddle above) states: '*He is a star next to the moon*'. The explanation is that he or she is an important person to somebody (Mokitimi, 1997).

The Tswana

- A Tswana proverb is: '*The Moon laughs at the Sun saying "You are white"* ' (Campbell, 1972). The explanation here is that one should look at one's self before attacking others.

The Tsonga

- One Tsonga riddle is: '*What goes away and comes back*'. **Answer:** 'The moon' (Junod and Jaques, 1936).

- '*A traveller does not cry at the moon*'. Alternatively: '*A traveller does not look at the moon*'. When a traveller arrives in a village he must not reveal that he knows about domestic matters in the village; he has only just come. He would be laughed at if he says: 'Here is the Moon! Here it is!' (Junod and Jaques, 1936).

The Venda

- An appropriate Venda riddle is: '*An old hag with one tooth*'. **Answer:** 'The moon'. Two further riddles with the same answer are: '*A white path leads to the chief's village*' and '*A white log on a mountain*'. In the latter case the answer is 'The moon' or 'flour' (Blacking, 1961).

- Two riddles are: '*A chief presided and the people surrounded him*', or alternatively: '*My father's garden is full of calabashes, one of which is very large: what is it*'. **Answer:** 'The moon and the stars' (Stayt, 1931). Very similar is the following: '*The chief appeared and his subjects clustered round him*'. **One answer is:** 'The moon and the stars' (Blacking, 1961). Another riddle with the same response is: '*There lies a full-grown* [original term offensive] *watermelon, while the small ones lie around it*'. Likewise with the same answer is: '*The big pumpkin said* Kii! *and the little ones sat round in a circle*'. The pumpkin is the original green spotted pumpkin of the Venda (Blacking, 1961). A different riddle is: '*First comes the King and then the subjects*'. **Answer:** 'The moon and the stars' (Wessmann, 1908).

- Somewhat obscure is this riddle: '*The moon that shines in a calabash*'. **Answer:** 'Coarse mealiemeal' (Blacking, 1961).

- A further riddle gives the clue: '*Red like a snuff gourd from Luonde Mountain*'. **Answer:** 'Sunrise, or the moon when it is just coming up' (Stayt, 1931).

- A Venda proverb is: '*When the clouds clear, the moon shines*'. This is another way of saying that a spoiled person lacks self-discipline and independence (Neluvhalani, 1997).

The Xhosa

- Some Xhosa riddles are: '*I have a fellow of mine; he can cut himself in half and not know where the other half has gone to, but he soon joins himself together again*'. **Answer:** 'It is the moon'. The same answer is given for: '*I have a thing of mine; it dies and rises*' and '*With the fire-place of a princess*' (Sobukwe, 1971).

- The following riddle is presumed to be Xhosa in origin. '*I have a woman. She has many many children and they are to be seen covering a great plain with the mother in their midst. But whenever her husband approaches, she and her children hide away*'. **Answer:** 'The moon, the stars and the sun' (Jordan, 1958).

- Another Xhosa riddle reads: '*I have a cotton blanket of mine that is valuable*'. **Answer:** 'It is the clouds that cover the moon' (Sobukwe, 1971).

- '*Dying and rising, as the moon does*'. This expression relates to someone who is very tenacious, and who will simply not acknowledge defeat (Soga, 1931). A similar expression is: '*It dies and rises like the moon*', which is said of any question which springs up again after it was supposed to have been settled (Theal, 1886).

The Zulu

- '*One mealie-cob in the field*', or '*My white ball which is handled by no one*', or '*A person who grows horns when young; when adult they vanish; they reappear when he is about to die*'. **Answer:** 'The moon'. The explanation for the first riddle is that *mealie-cob* means 'something white' and *field* denotes the blue sky (Khumalo, 1974).

- '*A white bull which grazes at night with white cattle*', or '*The king of night and his tribe*'. **Answer:** 'The moon and the stars' (Khumalo, 1974). Also with the same

response is: '*I riddle you with my hen that travels at night with its chicks*' (Mathenjwa, 2000).

- '*To look at (a thing) in the water, look at its reflection only, see that it is impracticable, unattainable*'. The person concerned wishes for the Moon (Dunning, [194?)].

- '*He trusts in darkness without a cloud*'. It is only when there are clouds at night that it is almost completely dark. If the sky is clear, then some light is provided by the Moon and/or the stars. Anyone hoping to do something under cover of darkness may be seen, unless it is very dark. This is a reference to a person who places their faith in something worthless (Nyembezi, 1954).

- One Zulu expression links the Moon and the rain, where it is stated that '*The sky, or weather, washes the face of the moon*'. This expression relates to rain which is 'common for two or three days after New Moon'. The rain is supposed to wash the face of the Moon thus making the face of the Moon look bright (Colenso, 1904).

The Southern Ndebele

- A Southern Ndebele riddle is: '*The small dish of Titus*'. **Answer:** 'The moon' (Mahlangu, 1988).

- Another riddle reads: '*By my white inyanga qualifying his white children*'. **Answer:** 'The moon and the stars'. A further riddle with the same answer is: '*By my hen driving its chickens that are alike*' (Mahlangu, 1988).

The Moon and poetry

- A Feather Thrown into the Sky (San traditional verse by //Kabbo: reworked by Watson). See: Watson (1991).

- A Good Moon Does Not Lie Hollow (San traditional verse by Dia!kwain: reworked by James). See: James (2001).

- Aandliedjie (Theodorus Wassenaar, 1892–1982). See: Pienaar (1929).

- Don't Look at the Moon (San traditional verse by Diä!kwain: reworked by Krog). See: Krog (2004).

- How Death Came (Khoikhoi traditional verse: translated/reworked by Jack Cope). See: Chapman and Dangor (1986).

- Inyanga (Benedict Wallet Vilakazi, 1906–1947). See: Gardner (1983). The original poem in Zulu and an English translation are given in the stated source.

- Moonlight ('Syned' = Denys Lefebvre, 1879–1946). See: Crouch (1911).

- Not to Look at the Moon When We Have Shot an Animal (San traditional verse by Dia!kwain: reworked by James). See: James (2001).

- Prayer to the New Moon (San traditional verse by Dia!kwain: reworked by Watson). See: Watson (1991).

- Prayer to the Young Moon (San traditional verse by !Nanni: translated/reworked by Jack Cope). See: Cope and Krige (1968).
- Prayer to the Young Moon (of the Bushman from his last hide-out on top of the Drakensberge, Mattheus Uys Krige, 1910–1987). See: Macnab (1958). Translated from the Afrikaans by Uys Krige.
- Re-birth (A Prayer to the New Moon, San traditional verse by Diä!kwain: translated/reworked by Jack Cope). See: Cope and Krige (1968). Another version entitled: 'Prayer to the New Moon' can be found in Krog (2004).
- Return of the Moon (San traditional verse by //Kabbo: reworked by Watson). See: Watson (1991).
- Rhapsody Moonlight (Herbert Isaac Ernest Dhlomo, 1903–1956). See: Visser and Couzens (1985).
- The Anger of the Moon (San traditional verse by //Kabbo: reworked by Watson). See: Watson (1991).
- The Backbone of the Moon (San traditional verse by //Kabbo: reworked by James). See: James (2001).
- The Foolishness of the Little Hare (San traditional verse by /A!kunta: reworked by James). See: James (2001).
- The Moon (William Charles Scully, 1855–1943). See: Crouch (1911).
- The Origin of the Moon (San traditional verse by //Kabbo: reworked by Watson). See: Watson (1991).
- The Sun, the Moon and the Knife (San traditional verse by //Kabbo: reworked by Watson). See: Watson (1991).
- The Things of /Kaggen Speak (San traditional verse by //Kabbo: reworked by James). See: James (2001).
- The Wind, Moon, Clouds and Death (San traditional verse by Diä!kwain: reworked by Krog). See: Krog (2004).
- The Witches ('Totius' = Jacob Daniël du Toit, 1877–1953). See: Butler and Opland (1989). Translated from the Afrikaans *Die Towerhekse* by Guy Butler.
- Things Which are Flesh (San traditional verse by /A!kunta: reworked by James). See: James (2001).
- To the Moon and Stars (Herbert Isaac Ernest Dhlomo). See: Visser and Couzens (1985).
- What Happens When You Die (San traditional verse by Dia!kwain: reworked by Watson). See: Watson (1991).

- What is the Moon? (San traditional verse by //Kabbo: reworked by Watson). See: Watson (1991).

An anthology of poetry on the Moon was published by a South African poet, Burgert Roberts (1940–). Roberts was inspired by the 20th of July 1969 landing on the Moon, and was at one time a member of staff of the University of Zululand. See: Roberts [1971].

The Moon and South African stamps

At least one South African stamp has a celestial object as the central theme, and in the context of a traditional belief. The stamp is one of a sheet of 10 stamps depicting San stories. The sheet is entitled: *The Lure of South African Lore and Legend*. The standard internal mail stamp under discussion (B5) shows /Kaggen (the Mantis) and the Moon. The stamps were designed by Hein Botha and were released by the South African Post Office on the 1st of July 2005 (Heinzone website: http://www.heinzone.co.za; International StampNews. Com website: http://www.stampnews.com, both accessed on the 12th of December 2010). A useful research project would be to examine all South African stamps (including stamps of the historical sub-divisions of the country) from the very earliest to the latest issues, to discover astronomy themes in general.

South African place names and the Moon

- **Crescent Mountains (an old name for a prominent ridge/mountain and pass slightly to the east of Engcobo, now known as Ngcobo: Eastern Cape) *31º41'S 28º03'E***
  This physiographic feature is also called the Horned Moon; the Pass of the Moon, or *uKhalinyanga* in Xhosa. Other Xhosa names are: *Incolinyanga*, *Ukalo Inguano* and *Ukhalo Lwenyanga* which all mean the 'pass or ridge of the moon'. The last-mentioned name refers to the crescent-shape of the terrain. A settlement known as *Kalinyanga* is found at this site (Raper, 2004).

- **Maanskynkop (a 964 m high peak in the Kleinriviersberge: Western Cape) *34º23'S 19º20'E***
  This bare peak, after rain, reflects moonlight over the eastern suburbs of Hermanus (Coulson and Clarke, 1983).

- **Paarlberg (at Paarl: Western Cape) *33º44'S 18º58'E***
  The three largest granite outcrops in South Africa form part of the Paarlberg. These are Britannia Rock, Gordon's Rock and Paarl Rock. The latter overlooks Paarl itself. The granite domes glisten after rain, especially in moonlight, and assume the lustre of pearls. Another version is that Paarl Rock in particular glistens with dew in the morning Sun. *Paarl* is the Dutch word for 'pearl' (Reader's Digest Association, 1980; Coulson and Clarke, 1983; Raper, 2004).

CHAPTER 4

Solar eclipses and lunar eclipses

A brief explanation of eclipses

Solar eclipses occur because of a strange coincidence where the Sun is approximately 400 times larger than the Moon, and is some 400 times further away. The sizes of the two bodies when viewed from the Earth are therefore almost exactly the same. A solar eclipse commences when the Moon starts to move across the face of the Sun. The Moon then casts its shadow on the Earth. The configuration is: **Sun Moon Earth** or SME-S (solar eclipse). The three bodies are thus in syzygy (directly in line with each other). Solar eclipses may be *annular* (a special case), *total* or *partial*. An annular eclipse occurs when the Moon is at its furthest distance from the Earth (known as apogee). The Moon does not fully cover the Sun, resulting in a circular ring of light around the Moon. In a partial and total solar eclipse the Sun is partly or completely obscured as the case may be. The full duration of partial and total solar eclipses, which begin slowly, should not be confused with the short period of maximum reduced light intensity (maximum magnitude of the eclipse) for partial eclipses, or darkness (totality) for total solar eclipses. Totality may last from a few seconds up to a maximum of 7 minutes and 58 seconds at the Earth's equator for a total solar eclipse; and 12 minutes and 24 seconds at the equator for an annular eclipse. The maximum possible duration of totality in both cases decreases away from the equator (Rudaux and de Vaucouleurs, 1967).

The mean or average diameter of the belt of totality or shadow track (on Earth) of a total solar eclipse is some 145 km. A partial eclipse is visible outside this zone. Partial eclipses accordingly, can be seen over a far wider area extending up to 3 500 km on either side of the shadow track. The magnitude of the eclipse becomes less with increasing distance from the belt of totality. The small area of complete shadow or darkness is known as the *umbra*, while the much larger area of partial shadow is referred to as the *penumbra*. Solar eclipses are evident in specified circumstances, but only at the time of New Moon (Moore, 1975). The total number of eclipses per calendar year is seven, namely: four or five solar eclipses and two or three lunar eclipses. The minimum number of eclipses in a year is two, which are always solar eclipses. Solar eclipses, over time, are more frequent than lunar eclipses in a ratio of 4:3. A single solar eclipse event can be of different magnitudes at various points along the shadow track. At one place the eclipse may be annular, at a more distant locality, total (where the Earth's surface is slightly closer to the Moon), and partial away from the belt of totality (Rudaux and de Vaucouleurs, 1967).

A lunar eclipse occurs when the Earth moves between the Sun and the Moon. The Earth then casts its shadow on the Moon. The relevant configuration is: **Sun Earth Moon** or SEM-L (lunar eclipse). Lunar eclipses, by definition, can only occur at the time of

Full Moon. Lunar eclipses, as indicated, are less frequent than solar eclipses. In a given geographic area, however, more lunar eclipses will be visible than solar eclipses. This is due to the fact that a lunar eclipse can be observed at every place where the Moon is above the horizon at the time of the eclipse. Lunar eclipses may be *penumbral* (very slight dimming), *partial* or *total*. The Moon remains visible in all three types of eclipses. Totality (the period of maximum effect) in a total lunar eclipse can last for nearly two hours. There is a slow progression towards totality (Moore, 1975). A totally eclipsed Moon often has a range of colours when it is within the umbra (the darkest part of the Earth's shadow). The colours range from brown, deep-red/rust-red/brick-red to orange (Dennis, 1993). This coloration is caused by the refraction (bending) of the Sun's rays during their passage through the Earth's atmosphere, and also by the scattering and absorption of the light due to dust and other pollutants in the atmosphere. The only colours reaching the Moon are from the red portion of the visible light spectrum. On rare occasions the eclipsed Moon will be very dark, or even black in colour as a result of large amounts of volcanic aerosols in the atmosphere (Dennis, 1993). One example was evident after the volcanic eruption on the island of Krakatau (Indonesia) on the 26th and 27th of August 1883, when a very dark lunar eclipse occurred on the 4th of October 1884 (NASA/Goddard Space Flight Center Eclipse Home Page. See: http://eclipse.gsfc.nasa/gov/LEmono/TLE2004Oct28/image/TLE2004keen.html, accessed on the 1st of October 2012). In more recent times eclipsed black moons were seen in the years 1963 and 1982 following major volcanic eruptions (Dennis, 1993).

Reactions to solar and lunar eclipses

It can be seen in the following discussion that eclipses were virtually always regarded with suspicion, awe and fear. Raum (1973), in discussing natural phenomena such as eclipses, hail, lightning, storms and moonless nights, referred to the stated emotions as leading to a 'retreat response' or 'avoidance regimen'. This was when daily or even vital activities ceased and behavioural patterns changed.

The Zulu, in the early days, believed that something was wrong with the Sun or the Moon during an eclipse (*ukufipala*). Lamentations and sacrifices were undertaken to awaken the heavenly body from its lethargy (Krige, 1950). An eclipse foretold a great calamity (L.H. Samuelson, 1974). This horror of eclipses extended to the late 1920s in the environs of the Ubombo Mountains in northern KwaZulu-Natal (N.A. Otte). Otte described one such event, a total lunar eclipse, which he experienced as a young child. The people of the area immediately hid in their huts and wailed. Their laments could be heard at a considerable distance in the still night air. It is claimed that Shaka, in the company of many ordinary people, experienced a solar eclipse (*ukufiphala kwelanga*) during the preliminary phase of the Feast of the First Fruits on the 20th of December 1824 (Ritter, 1972). A very deep (high magnitude) partial solar eclipse was indeed evident in Zululand in the early afternoon on the 20th of December 1824 (T.P. Cooper). Shaka and his principal diviners regarded the eclipse as an omen that the king should restrict his affairs to the kingdom itself for a year, and that he should avoid all external campaigns (Zaloumis and Difford, 2000).

It is said that a total solar eclipse occurred when the Angoni or Ngoni, under their leader Zwangendaba or Zongendaba, crossed the Zambezi River while migrating northwards.

The crossing was undertaken during the darkness of totality. The Ngoni had originally fled from Zululand and the rule of Shaka. The total solar eclipse was interpreted as a sign that unpleasant circumstances were being left behind, and that good things were coming in the future. The confirmed date of the eclipse is in the early afternoon of the 20th of November 1835 (Anonymous, 2002; Feris, 2002; Sullivan, 2001; T.P. Cooper). It would be interesting to determine the approximate point of crossing of the river using tools available on the Internet. These tools could include Google Earth or a very good atlas as well as data on the duration and locality of the eclipse obtained from an appropriate website on eclipses (**see Appendix D**). The NASA website is suggested here. Unknown factors are: (a) whether the whole party crossed the river during totality or whether only some did so, and (b) the width of the river which, in turn, relates to (a). The width of any river will vary depending on weather conditions. It is possible that the river may have been in flood (in November). If we assume that the entire party did indeed cross the river during totality, then this suggests a small party and a fairly narrow stretch of river, or perhaps maximum speed in crossing the river (especially if being chased). It is not impossible that there is some degree of historical myth at work in this scenario. The account of the eclipse is interesting, nonetheless.

The mutiny of one of the regiments (*amabutho*) of the Zulu king Mpande, which occurred in September 1849, greatly upset Mpande (Raum, 1973). The regiment fled north to Swaziland at a time when there was conflict and warfare between Mpande and the Swazi. A very deep partial solar eclipse in the early morning on the 18th of August 1849, combined with the subsequent mutiny, resulted in Mpande comparing himself to the 'broken' Sun, being likewise 'broken and done'. The Sun would have appeared in the form of two 'red horns' as a result of the eclipse and the red colour of the early morning sky (T.P. Cooper). The event was a rare combination of a rising Sun and an eclipsed Sun (a grim omen).

An infamous episode occurred in Natal in the early 1870s when the Hlubi were attacked in the KwaZulu-Natal Drakensberg by a military force acting on the instructions of the Natal Government (Rees, 1958; Guest, 1976). The battle took place on the 4th of November 1873, with a second engagement a few days later. The Hlubi had been regarded as troublesome for some time, and were acquiring firearms in lieu of money wages for their labour on the diamond fields. The Hlubi returned to Natal with the firearms in their possession (an illegal act), and refused to register the firearms with the resident magistrate. Langalibalele kaMthimkhulu, the chief of the Hlubi, was captured and brought to Pietermaritzburg in December 1873. His trial began on the 16th of January 1874. The charge was one of rebellion against the authority of the Queen (a most serious charge). Langalibalele was subsequently found guilty and exiled to Robben Island. The whole affair, including the trial, was badly handled by the authorities, which resulted in several repercussions both locally and in the United Kingdom. A total solar eclipse was visible in Pietermaritzburg in the late afternoon on the 16th of April 1874. The eclipse, combined with a violent hailstorm in the city a day later, was immediately perceived by the local Africans to be a deliberate diversion created by Langalibalele to give his people the opportunity to secure his release from prison. A sympathizer, Harry Escombe, sent a message to Langalibalele (still in prison) to advise him that the total solar eclipse on the following day should not be viewed as a bad omen in terms of the trial. Heavy flooding in the Transkei in 1874 was also attributed to Langalibalele. It was believed that the floods would continue unabated,

with great devastation to livestock and crops, until such time as Langalibalele was set free (Rees, 1958; Guest, 1976). Part of the praises of Langalibalele, which were recorded in 1928 by H.M. Ndawo and cited by Hadebe (1992), include the following:

Langalibalele has been arrested,
He has been arrested by those who know
The morning stars, the moon, the sun and pleiades.

The name *Langalibalele* refers to the hot Sun with *ilanga* meaning 'the Sun' and *li balele* meaning 'it is killing, or hot' (Rees, 1958; Guest, 1976). Langalibalele was so-named because he was born during a severe drought. His name subsequently came to be associated with the belief that he could cause or relieve droughts.

A later eclipse associated with significant events was the partial solar eclipse which was visible in the early afternoon at Isandlwana on the 22nd of January 1879, the day of the most famous battle of the Anglo-Zulu War (R. Lock). The partial solar eclipse proved unfortunate for Mbilini kaMswati (a renegade Swazi prince and an experienced guerrilla leader) and his Qulusi allies (Knight, 2003). Mbilini was a firm supporter of the Zulu Royal House and an active participant in the war. A Qulusi stronghold at Zungwini Mountain, north east of Vryheid, was attacked by the British on the 22nd of January 1879, while Mbilini was conferring with Qulusi leaders. The Zulu were caught by surprise, and after a running engagement, were forced to withdraw. The retreat caused disappointment for the Zulu, coming so early in the war. The eclipse, later in the day, was interpreted as an omen that the power of Mbilini was waning (Knight, 2003). Mbilini was subsequently shot by the British and died of his wounds in April 1879 (Laband, 1995). The death of the 'hyena of the Phongolo' as Mbilini was admiringly known left his followers leaderless and demoralized. This event, combined with further military setbacks, resulted in Mbilini's adherents soon moving north of the Phongolo (Pongolo) River (Laband, 1995). The eclipse, then, could perhaps be regarded as prophetic.

One Zulu informant described the reaction of an ordinary household to a solar eclipse (Raum, 1973). The event was presumably a partial eclipse of considerable magnitude or a total eclipse in the late 19th or early 20th century. The old people, puzzled by the eclipse, went out to fetch the herd-boys. Women stopped brewing, potters and smiths ceased operations, and hunters returned from their hunt 'astonished' by the darkening of the Sun. Everyone abandoned work in the fields because they feared the darkness. The cows were not milked and were left with their calves. Sour or fermented milk (*amasi*) was not consumed. No man slept with his wife that day, since the event was 'a miracle' (*isiManga*). No man, likewise, slaughtered on that day. A 'love visit' or wedding in progress was stopped, with both continuing after the Sun emerged. The eclipse was discussed, although loud exclamations were avoided. The event (the darkness) was one of respect (*hlonipa*) because the people did not know the future outcome thereof. The Zulu in 'ancient times' thought that 'the world would perish' when a solar eclipse occurred (Raum, 1973).

The Ndzundza Ndebele regarded a lunar eclipse as a bad sign, which indicated that the Moon had died (Fourie, 1921). Men, women and children hurried to the nearest water source where they washed themselves. The same procedure was undertaken after a burial.

The people washed their bodies to avoid any possible negative magical influence or contamination from the dead Moon. A solar eclipse, similarly, was a sign of ill omen. A comet was likewise an indication of trouble. A falling star was always a signal that war or an epidemic was imminent (Fourie, 1921).

The Xhosa word for an eclipse is *umnyama*, while a solar eclipse is known as *ilanga liyadliwa*, literally: 'There is an eclipse of the sun' (Kropf and Godfrey, 1915). A lunar eclipse is referred to as *ukudliwa kwenyanga* (Fischer, 1985). The Xhosa term for the shadow of the Earth as seen in a lunar eclipse is *isitunzi somhlaba* (Kropf and Godfrey, 1915). According to one version of events the Bhaca under their chief Madikane were defeated by a combined force of Gcaleka (Xhosa) and Tembu (Bryant, 1929). The battle took place on the 20th of December 1824. A solar eclipse occurred soon after the battle, which was evidently a bad omen for Madikane (and which was seen as such by the victors). Madikane survived the battle but was killed in his hut one night, some time later, by a Tembu raiding party. Soga (1930), in contrast, states that Madikane was killed during the battle itself, and that the allied forces included the Mpondomise. Soga (1930) did not mention any eclipse. The Xhosa were aware of the total or partial solar eclipse, depending on locality, which occurred on the 1st of October 1940 (Mini, Tshabe, Shoba and van der Westhuizen, 2003).

The Southern Sotho (Basotho) refer to an eclipse of the Sun as *phifalò ya letsatsi*, and an eclipse of the Moon as *ho bòla ha kgwedi* (Christeller, 1994). A different orthography as per Ambrose (2009) is also given here, where a lunar eclipse is known as *ho bola ha khoeli* or 'the rotting of the moon', while a solar eclipse is described as *phifalo ea letsatsi* or 'the darkening of the sun'.

The Tswana associated eclipses, comets and shooting stars with momentous events, sometimes including the deaths of important people such as chiefs (Clegg, 1986). One occasion was a 'substantial' solar eclipse, which occurred shortly after the death of Sir Seretse Khama of Botswana on the 13th of July 1980. [There is some confusion in this case, however. There was an eclipse on the 10th of August 1980 which was not visible in Africa. The only other (partial) eclipse in 1980, on the 16th of February, was seen in southern Africa.] Another instance was the death of the (Tswana) Chief Bathoen I of the Ngwaketse, which coincided with the return of Comet 1P/1909 R1 (Halley) in 1910 (Clegg, 1986). A total solar eclipse on the 16th of April 1874, as well as the 1910 Comet Halley and the partial solar eclipse on the 1st of October 1940 were of significance for the Tswana resident in the northern Cape (the environs of Kuruman and Postmasburg), and formed part of the historical calendar (Breutz, 1963). Breutz (1969) indicated that a lunar eclipse signified the death of a chief because the Moon was thought to be dead. A lunar eclipse could also mean war or a famine. The Tswana then gathered together as much food as possible to withstand either misfortune. One Tswana regiment in the Vryburg district of the present-day North-West Province was known as *Mašwangedi* or 'eclipse of the moon' (Breutz, 1959). The name should actually be spelt as *Mašwang**w**edi*.

A Northern Sotho informant cited by Breutz (1969) stated that certain actions were required if a solar eclipse occurred while the people were busy in the fields. The people dispersed to their homes and waited to hear what had happened, since the eclipse signified war, which

was expected to be bloody, resulting in the loss of many cattle and men. A solar eclipse was a bad sign for the Northern Sotho in general (Eiselen, 1928). A solar or lunar eclipse was an ill omen for the Pedi (a Northern Sotho people), and indicated the death of a chief (Mönnig, 1983). Eclipses and comets were a sign of ancestral censure for the Pedi, which necessitated a response in the form of worship and sacrifices on the day of the occurrence, or as soon as possible thereafter. The Northern Sotho term for a lunar eclipse is *kgwedi e bodile* (Kriel, 1976) or *phifalô ya kgwêdi* (Kriel and van Wyk, 1989); while a solar eclipse is known as *phifalôtšatši* (Kriel and van Wyk, 1989). Ziervogel and Mokgokong (1975) give the term *kgwêdi e bôdilê* meaning 'to be an eclipse of the moon'. Beyer (1919), with regard to an older orthography, refers to a solar eclipse as 'the turning dark of the sun' or *go fifala ga letjatji*; while a lunar eclipse or *go bola ga kgwedi* is 'the becoming rotten of the moon'. It was evidently on the day of the partial solar eclipse of the 20th of December 1824 that the renowned Pedi chief (Thulare) died (Mönnig, 1983). Thulare is said to be the greatest and most loved of the early Pedi chiefs.

The Venda believed that a solar eclipse or *tshivhedza* was an evil omen which foretold the death of a chief, or a famine or pestilence. It was thought that a 'bird fancier' guards some large and peculiar birds where the Sun rises. One of these birds escapes and swallows the Sun for a short time, resulting in an eclipse (Stayt, 1931). A somewhat different interpretation was evident for the total solar eclipse on the 4th of December 2002 in north eastern Limpopo Province. The duration of the eclipse was 2 hours and 23 minutes with a totality of 84 seconds at Musina (previously Messina). Some Venda believed (historically) that their creator, Raluvhimba (Mwarí), visited the Earth during a solar eclipse (Anonymous, 2002a). The 2002 eclipse further denoted the passing of the creator from the Matobo (Matoba) Hills in Zimbabwe to Makonde (north east of Sibasa) in order to give messages to the Venda. The creator cast a shadow on the Earth as he crossed the Sun (Anonymous, 2002a). Such an event must be treated with reverence. The people were required to remain seated, and to avoid looking at the Sun (Khumalo, 2002). It was thought that those who watched the eclipse would be struck by lightning and burnt to ashes (Anonymous, 2002a). Solar eclipses, according to at least one Venda herbalist (*nganga*), always signified the beginning of a new era and a better life for all. The *nganga* believed that the presence of the creator at this time strengthened the medicines (Khumalo, 2002). Van Warmelo (1989) gives the term *mutsha-kavhili* or 'dawns twice' as the Venda word for an eclipse of the Sun or the Moon. Van Warmelo somewhat surprisingly states that neither type of eclipse is regarded with any degree of importance by the Venda. The Tsonga were not especially impressed by solar and lunar eclipses, which were no cause for panic (Junod, 1927).

Solar and lunar eclipses; whirlwinds; the rainbow (associated with lightning); shooting stars, the 'awful tail' of a comet and the 'Southern Lights' or the Aurora Australis were all evil omens for the Khoikhoi, and resulted in emotional turmoil (Hahn, 1881; Schultze, 1907 cited by Schapera, 1965). These phenomena were associated with //Gaunab (who via such events) threatens war, sickness and death. Khoikhoi hunting or war parties immediately returned home in most of these circumstances exclaiming: '*//Gaunabi ge dahe ha*' meaning 'We are overpowered by //Gauna' [//Gaunab]. The Khoikhoi cried out aloud: '*torob ni ha, //o ge ni*' ('War is approaching, we are going to die'). Any planned hunting or war expeditions were postponed to another time.

The /Xam believed that the Moon should not be laughed at, in case it became angry and 'went into the sky' thus becoming eclipsed (Schapera, 1965). It was for the same reason that a /Xam child was warned by his father not to look at the Moon as it first rose behind the darkened mountain, for fear of incurring its anger. This behaviour would result in the Moon becoming obscured, causing darkness which frightened the /Xam, given that lions were a constant threat (Schapera, 1965). The /Xam banged their leather shoes together when they saw a solar eclipse commencing (i.e. the Sun becoming smaller). They continued this action to make the Sun come out again, only ceasing when this was so (Hollmann, 2004). The San thought that some fallen or misguided shamans (medicine-men) deliberately chose to become poisoners and evil magicians, rather than healers, and appeared in the form of lions (Thomas, 1959). These lions were different from ordinary lions due to their great size and their ability to float in the air. A further San belief, according to Thomas, is that such a lion can cover the face of the Moon with a great paw on very bright moonlit nights, thus giving himself darkness for better hunting (i.e. an explanation of a lunar eclipse). Marshall (1999) referred to a partial (low magnitude) lunar eclipse on the 5th of August 1952 which was seen by the !Kung in Namibia. This minor eclipse was of no particular interest for the !Kung. The !Kung subscribe to the belief that a lunar eclipse occurs when the lion's paw covers the Moon. A total lunar eclipse therefore frightens the !Kung who bang their digging-sticks together to scare the lion away. A partial solar eclipse, at one time, resulted in a rather severe reaction. The !Kung were terrified, believing that the Sun was 'going blind', and that they would all die in the darkness (Marshall, 1999).

The Ju/'hoansi or !Kung continue to believe that a trickster lion is associated with both solar and lunar eclipses (Rogers, 2007). Bad spirits or malevolent shamans sometimes turn themselves into lions. This type of lion possesses powerful magic and wraps its tail around the Sun or the Moon, resulting in a solar or lunar eclipse (A. Rogers; Rogers, 2007). Eclipses are still regarded by the Ju/'hoansi as very evil events involving death and the forces of darkness (Worsdale, 2003). The latter sentiment became starkly evident during the filming of a documentary entitled: *Cosmic Africa*. The film concerns African celestial beliefs and observations, and was released on the South African art cinema circuit by Ster-Kinekor in November 2003. The film crew were present at the Ju/'hoansi settlement in Tshumkwe (slightly to the north of the Nyae Nyae area) before and at the time that a partial solar eclipse occurred on the 21st of June 2001. Suspicions were immediately aroused because the film crew had been asking their informants many questions about the heavens. The crew were accused of bringing spirits, making winter, and allowing their telescope to eat up the Sun. The Ju/'hoansi dance, sing and clap during a total lunar eclipse, while their shamans enter into trances (Worsdale, 2003). Rogers (2007) stated that the Ju/'hoansi, even under normal circumstances, fear the period of darkness when there is no Moon at all. The people, at night-time, are alert to the dangers of the beasts of prey and the spirits of the dead.

It should be explained here that contemporary northern San medicine or trance (healing) dances usually begin at dusk and can continue to the next morning (Marshall, 1962). Shamans due to their intense dancing, singing and robust foot stamping, with strings of dried-cocoon rattles on their lower legs, eventually reach a stage of altered consciousness (a trance). The actions of the shamans are accompanied by the insistent singing and clapping

of the women and girls. The flickering flames of the fire add to the general atmosphere. Various characteristic postures are adopted by shamans during the trance dance. The shamans (in a trance) acquire spiritual or supernatural power or energy (i.e. potency) to enter the spirit world (Marshall, 1962). Neurologically-induced hallucinations of various kinds occur while someone is in a trance (Lewis-Williams, 1986). These hallucinations are usually visual, but may include certain sounds heard by that person (auditory hallucinations) as well as somatogenic hallucinations consisting of specific physical sensations (Lewis-Williams, 1986). A shaman heals an afflicted person by placing his hands on the person concerned, usually on the back and chest, in order to draw the sickness out (Marshall, 1969). The sickness enters the shaman through his hands and goes up into his arms, neck and head. The sickness is ejected by the shaman through his neck (by the violent shaking of his head), by shouting or shrieking the sickness away, and by vigorously moving his arms and hands to throw the sickness back to the evil entities who brought it. Healing addresses both physical complaints as well as psychological stress (Marshall, 1969). Dancing, often initiated by children and adolescents, may begin purely for fun with the adults later joining in, and with trances occurring at some stage during the dance (Biesele, 1978). Everyone, briefly including very young children, participates in a trance dance which is a collective endeavour of all the people to banish evil and misfortune. Lewis-Williams (2002), in discussing the /Xam in particular, observed that shamans in a state of trance were believed to cure the sick, go on out-of-body travels, chase malevolent shamans (marauding as lions) away, protect the people against thunderstorms, make rain and control the movements of game.

The songs sung by the women during the northern San trance dances are medicine songs which can be of different types (Marshall, 1962). The songs of the !Kung, as one example, were known as Rain, Sun (undertaken at dawn), Giraffe, Eland, Honey, Buffalo and Mamba. Some !Kung also had Gemsbok and Spider medicine songs. These dances were named for those things which are vital, life and death issues and are ‘strong’. The curing medicine in the songs is thus likewise strong. The Rain Dance, however, is not danced as a specific rainmaking ceremony. The dances serve both a sacred (religious) and a social function. The !Kung may also dance even if no one is ill, or there is no identified misfortune. The purpose is then to drive away any evil which might be present but is unseen, and to feel protected by ‘goodness’. The latter sentiment refers to the medicine (strong healing power) placed in the bodies of the shamans and in the songs by the great god. The !Kung term for spiritual medicine and a medicine-man is *n/um* and *n/um kxau* respectively (Marshall, 1962). Marshall (1969), in turn, describes an !Kung medicine dance as *n/um tshxai* and medicine-men (plural) as *n/um kxao-si* or ‘*n/um* owners’. The medicine songs were given to the !Kung and the G/wi by the great god who sends his messengers (the spirits of the dead) to a sleeping person (Thomas, 1959). These spirits teach the person a medicine song in a dream. When the individual wakes up, he teaches the song to the other members of the band. Newer versions of the medicine songs are therefore evident over time (Thomas, 1959). The dancing is always the same regardless of which song is being sung (Marshall, 1969). It is useful to note that Biesele (1986) examined the significance, role and nature of !Kung songs and narratives (stories).

The !Kung danced at irregular intervals, averaging about once every 10 days (Marshall, 1962). There was a special supernatural potency for dances undertaken at dawn. The !Kung invariably danced at least once during a Full Moon (Marshall, 1962). Medicine dances may also be held by the !Kung after successful hunts involving large game, although this is not always the case (Marshall, 1969). The reason for this dance is to alleviate the considerable anxiety and tension regarding the proper and equal distribution of the food. A medicine dance may occasionally follow an unsuccessful hunt, and is due to a lack of food and a fear of hunger. Medicine dances can also be held with visitors to the settlement, either those arriving or departing (Marshall, 1969).

Lee (1984), in referring to the !Kung of the Dobe area, observed that those entering a state of trance (*!kia*) were the adult men with the very occasional woman healer doing likewise. The women have a special dance where they enter into a trance if they wish, with the men playing the supporting role. The dance of the women is not primarily a healing dance as such, but rather a dance for introducing women to *!kia*. Many women later become fully-fledged healers after a period of training. About half of the adult !Kung men achieve a state of trance at some stage in their lifetimes, and about a third of the women (Lee, 1984). A detailed discussion of contemporary !Kung medicine dances can be found in Marshall (1969). In similar vein see Heinz (1975) for the !Xõ; Guenther (1986) for the Naron or Nharo, and Silberbauer (1981) for the G/wi.

Eclipse stories

The Victorian author Sir Henry Rider Haggard used a total lunar eclipse to good effect in his romantic novel: *King Solomon's Mines*, which was first published in 1885 (Haggard, 1990). Totality of the imaginary eclipse lasted for 90 minutes. The eclipse was 'conjured up' to illustrate the supernatural powers of a party of white men and their supposedly Zulu servant who were then travelling in Kukuanaland. The servant was in reality the exiled heir to the throne of the Kukuana people. This potent demonstration of magic resulted in great fear amongst many of the populace, while at the same time rallying support for the lawful king. The reigning monarch, a particularly evil and bloodthirsty usurper, was subsequently killed in hand-to-hand combat. The true king duly assumed the throne. The catalyst for the entire chain of events was the eclipse. Kukuanaland, of course, does not exist. It is said that Haggard based his lunar eclipse on the partial solar eclipse which occurred at Isandlwana on the 22nd of January 1879 (R. Lock). The party at their first (accidental) meeting with the Kukuana passed themselves off as having come from the 'biggest star that shines at night'. This explanation was advanced to explain various things such as the 'magic tube that speaks' and kills from a distance (a rifle and the sound of a gunshot), movable (false) teeth, and a 'shining eye' (monocle). The Kukuana were greatly impressed and in awe of these devices, having never previously encountered this type of magic.

Eclipse poetry

Olivier (2002) published an anthology of Afrikaans poems on the total solar eclipse of the 4th of December 2002 in northern Limpopo.

CHAPTER 5

The stars and planets

General overview

The objective of this section is to briefly examine a few astronomical concepts which are relevant to the discussion later in the chapter. No attempt has been made to provide detailed information. Technical explanations, likewise, have been avoided.

Stars, put simply, are large balls of burning gas mainly consisting of hydrogen and helium, and which are self-luminous. Massive stars usually have a shorter life-span since they consume their fuel more rapidly. Stars, depending on their mass, may eventually become unstable, collapse inwards and explode, or may evolve into white dwarfs (the future fate of our Sun). About 2 500 stars are visible to the naked eye on a clear and dark night. The effect of the Earth's rotation and its revolution around the Sun is that stars rise and set 3 minutes and 56 seconds earlier each night. Stars, therefore, will rise and set about two hours earlier in a specific month in comparison with the previous month. It follows that the same stars are not seen throughout the year. It takes a full year for a star to become visible once more at the same time and position in the sky. It is important to bear in mind that the rising and setting times for a particular celestial body will vary with the locality of the observer. South Africa is a large country which means that the exact date of the first early morning rising of a star in the year at Cape Town, for instance, will differ from the same sighting in Pretoria. It is for this reason that a more general temporal description, such as 'mid-late May', has been used in this book. Celestial precision cannot be invoked in a discussion which encompasses a wide range of localities.

Stars vary in colour from bluish-white and greenish-white, to yellowish, to yellow, orange, orange-red and red. Bluish-white stars are the hottest stars and red, the coolest. The actual luminosity of a celestial body, however, cannot be directly measured. The apparent brightness of an object is determined by its luminosity and its distance away from the observer on Earth. A logarithmic scale is used to establish the *apparent visual magnitude* of all the celestial bodies. The *brighter* the object, the *lower* is its apparent magnitude, and the dimmer the object, the greater is its apparent magnitude. The logarithmic scale has been refined over time to incorporate modern advances in astronomy. The average of the 20 brightest stars is about magnitude 1, or first magnitude, while the very faintest stars normally visible to the naked eye on a clear and dark night have a magnitude of 6 (sixth magnitude). Stars which are between the two extremes have intermediate values of apparent magnitude. First magnitude stars are 100 times brighter than sixth magnitude stars, where a difference of five magnitudes equates to a difference in brightness by a factor of 100. A difference of 1 magnitude corresponds to a difference in brightness of 2.512 times. Stars of magnitude 2 are thus 2.512 times fainter than magnitude 1 stars.

There are a few stars which are brighter than first magnitude. Stars 2.512 times brighter than first magnitude are given an apparent magnitude of zero. Stars even brighter than this are allocated a negative value. The brightest object in the sky is our Sun which has an apparent magnitude of –26.72. Sirius, the brightest star in the night sky has an apparent magnitude of –1.46, while Canopus, the second brightest star in the night sky has an apparent magnitude of –0.72. The faintest star seen with the unaided eye in a clear, dark sky (as already indicated) has an apparent magnitude of +6.

The term 'planet' was originally derived from the Greek word meaning 'wanderer', since the planets are seen to move relative to the apparently fixed background stars. Planets do not emit light produced by internal nuclear reactions and shine by reflected sunlight. A revised definition of planets and other celestial bodies provided by the International Astronomical Union in August 2006 indicates that a planet is a celestial body which is in orbit around the Sun, is nearly round in shape, and has cleared the neighbourhood (of small objects) around its orbit. A dwarf planet is a celestial body which is in orbit around the Sun, is nearly round, has *not* cleared the neighbourhood (of small objects) around its orbit, and is not a satellite. There are currently five dwarf planets: Pluto, Eris, Ceres, Haumea and Makemake. Pluto has been recognized as a prototype of a new category of Trans-Neptunian Objects which are normally beyond Neptune's orbit, but which approach closer than Neptune for part of their orbit. All other natural objects are collectively known as Small Solar System Bodies. There are thus eight planets, at least 150 known moons, over 330 000 asteroids and many comets in the Solar System. Asteroids are probably small remnant bodies left over after the formation of the main planets.

The Solar System consists of all the celestial objects which are held by the gravitational field of the Sun. This includes the planets and their moons, asteroids, comets and inter-planetary dust. The Solar System extends outwards from the Sun, possibly halfway to the nearest star to the Sun which is Proxima Centauri (also known as alpha Centauri C). The latter body probably forms part of a triple star system with alpha Centauri A and alpha Centauri B. The two last-mentioned stars orbit each other and constitute what is called a binary system. (A double star, in turn, can be defined as a star which is single to the naked eye, but which appears to be two stars in close proximity when viewed through a telescope.) It is common to refer to alpha Centauri as one star when seen with the naked eye. Readers should be aware of the distinction, nevertheless. Alpha Centauri, also known as Rigil Kentaurus or Tolliman, is the third brightest star in the night sky.

The planets nearest to the Sun are the smaller rocky (inner) planets, namely: Mercury, Venus, Earth and Mars. Next in sequence are the gas giants of Jupiter, Saturn, Uranus and Neptune (the outer planets). A useful mnemonic in this respect is: '**M**y **V**ery **E**ducated **M**other **J**ust **S**ent **U**s **N**ougat' (i.e. Mercury Venus Earth Mars Jupiter Saturn Uranus Neptune). Neptune is of no further relevance in our discussion since it is too faint to be seen with the naked eye. A distinction must be made between *superior planets* and *inferior planets*. A superior planet is one which has a mean or average distance from the Sun which is greater than the mean distance of the Earth from the Sun. The superior planets are Mars, Jupiter, Saturn, Uranus and Neptune. The inferior planets (Mercury and Venus) are those whose orbits are closer to the Sun than the orbit of the Earth is to the Sun. All the planets,

with the exception of Mercury and Venus, have at least one moon, and most have several moons. Five of the planets can readily be seen with the naked eye, and are often the brightest objects in the sky. Such planets are Venus, Mars, Jupiter, Saturn and Mercury (the latter is only sometimes visible due to its proximity to the Sun). Uranus is on the borderline of naked-eye visibility. Mercury, to the unaided eye, has a yellowish or pale orange colour. Mars, as the red planet, actually with an orange-red colour, needs no explanation. Venus has a very brilliant white colour, while Jupiter has a pale yellow colour. Saturn shines with a pale yellow light. Uranus has a slightly greenish tint when seen through a telescope. The planets and the Moon are always to be found in that part of the sky known as the zodiac, through which passes the ecliptic or apparent path of the Sun.

The planets and stars can usually be visually differentiated by the naked eye, where planets do not often scintillate or twinkle as stars do. Planets instead shine with a steady lustre. A star is seen by the naked-eye observer as a single ray of light (a point source). This light is subject to considerable and irregular refraction or bending depending on the varying temperatures, water vapour concentrations and air densities in the different layers of the Earth's atmosphere. Refraction results in slight changes in the position and brightness of the star as well as variations in colour, and is the cause of twinkling. Stars close to the horizon appear to twinkle more because of the thicker atmosphere (greater refraction) than stars near the zenith (i.e. overhead). Planetary scintillation, in contrast, is not noticeable to the naked eye except in very turbulent atmospheric conditions. The light from the planets reaches the naked eye in the form of a large bundle of rays (i.e. as extended sources of light) which follow many different pathways through the atmosphere, and which cannot all be refracted at the same time. The result is a more stable or 'averaged' light from the planets.

All the planets orbit the Sun in the same direction, and have almost circular elliptical orbits. The greatest eccentricity (deviation from a circular orbit) is evident for the orbits of Mercury and Mars. The planets, viewed from Earth, are first seen to rise in the east and slowly migrate westwards during the course of the seasons. The stars also have an apparent westerly motion across the sky over the year. This characteristic is easily demonstrated by observing a given star which rises in the east at around sunset at one time of the year, and which is seen progressively higher up in the sky at sunset as time passes. The star moves westwards, gradually becoming lost in the west in the glare of the setting Sun. The star remains invisible for a period of time until it is once again observed rising in the east before sunrise. The darkest part of the sky at dawn is in the west, which is the opposite side from where the Sun is about to appear, or has just appeared. The darkest section of the sky at dusk is in the east when the Sun has set, or is about to set.

Some observational characteristics of the planets are of interest. None of the inferior planets (i.e. Mercury and Venus) is visible throughout the night. The two planets, nevertheless, can be seen in the morning or evening sky on specific occasions (**see Appendix A**). These planets cannot be seen at other times in their orbits when they are situated very close to, or behind the Sun. An inferior planet is said to be at *greatest (solar) elongation* or angular distance when the planet is at its maximum apparent distance from the Sun. Venus for instance, at greatest eastern elongation, is located to the east of the Sun. Venus sets

after the Sun and is referred to as an 'evening star'. When Venus is at greatest western elongation, it lies to the west of the Sun and rises before the Sun. Venus is then known as a 'morning star'. The evening star thus appears in the sky in the west, with the morning star appearing in the sky in the east. The two inferior planets may not necessarily always be visible in the morning or evening sky as a result of their proximity to the rising or setting Sun. The full evening star/morning star cycle of Venus takes an average of 583.92 days. The continuous stages of Venus as an evening star and subsequently as a morning star average 263 days each, or approximately nine months at a time (i.e. 263 days + 263 days = 526 days). There is a period of about 8 days when Venus in its orbit is too close to the Sun to be seen. This situation occurs when Venus is between the Sun and the Earth with all three bodies in a line (i.e. **Sun Inferior Planet Earth**). Such a configuration is known as *inferior conjunction*. There is a subsequent period of about 50 days when Venus is again not visible. The planet at this stage passes around the far side of the Sun (a situation known as *superior conjunction* when the alignment is **Inferior Planet Sun Earth**). Simple arithmetic gives us the following: (263 days + 8 days) + (263 days + 50 days) = 584 days. The equivalent period for Mercury as a 'morning star' and then as an 'evening star' is 116 days (in reality 115.88 days). Venus undergoes five cycles of morning appearances (*apparitions*) and five evening appearances in any given eight-year period. Venus and Mercury have a complete cycle of phases like the Moon. Mercury, again like the Moon, is faintest when in a crescent phase and is brightest when full (the reverse of Venus). The phase of a superior planet in contrast is always full or gibbous (where the disc is more than half-illuminated). The superior planets can also be morning or evening stars, and are visible throughout the night at certain times of the year.

Also of importance is the distance travelled by a planet in a given period of time, which depends on the distance of the planet from the Sun. The further away a planet is from the Sun, the slower the planet moves in its orbit, and the lesser is the distance that the planet is seen to move against the background stars. The two extremes amongst the superior planets are Mars (fast) and Neptune (exceptionally slow). The inferior planets are 'fast movers'. The planets, unlike the stars, do not return to the same place in the night sky every 12 months. The planets due to their particular orbital characteristics (orbital eccentricity and orbital inclination) will only return to approximately the same locality in the sky (remember that the planets were originally regarded as 'wanderers') (Jones, 2007; Mack, 1997; Rudaux and de Vaucouleurs, 1967; Bernhard, Bennett and Rice, 1959; Nicolson, 1977). Further information on the planets is provided where relevant in the following pages.

Four significant celestial terms must be introduced at this juncture, namely, an *asterism*, an *open star cluster*, a *nebula* (plural = nebulae) and a *constellation*. An asterism is commonly described as a group of stars without an official designation, while an open star cluster is a group of stars ranging from a dozen to several thousand or more, which are all approximately the same age, and which move around the Milky Way in the same direction. A nebula is a cloud of gas and dust which is visible as a fuzzy luminous region or as a fuzzy dark patch against the background stars. There are three main types of nebulae, specifically: emission, reflection and dark (or absorption). Bright nebulae glow with light emitted by their gas (emission nebulae), or by reflected starlight (reflection nebulae), or

both. Dark nebulae consist of clouds of gas and dust which are not illuminated in such a manner, and which appear to be devoid of stars. The dust particles they contain block the light of stars situated behind these nebulae. A good example of the latter is the Coal Sack. Constellations can be defined as stars grouped according to a specific pattern (resembling for instance people, animals, birds, fish and instruments) and which are internationally named and recognized. The sky is divided into 88 constellations, some of which require considerable imagination to conceptualize. The smallest constellation is Crux or the Southern Cross (Jones, 2007; Turk, 2001; Nicolson, 1977; Mack, 1996; Rudaux and de Vaucouleurs, 1967; Bernhard et al., 1959; Mayall and Mayall, 1954; FitzGerald, 2005; Hargreaves, 1948; T.P. Cooper).

It should be explained that the Magellanic Clouds (of some importance in southern African celestial beliefs) are two small, irregular or perhaps barred spiral galaxies, which are satellites of our galaxy (Jones, 2007). The Large Magellanic Cloud is in the constellation of Dorado, while the Small Magellanic Cloud is in the constellation of Tucana. Both these celestial bodies, in the form of hazy patches, are visible to the unaided eye on a clear and dark night in the southern hemisphere (Jones, 2007).

Two other astronomical terms of relevance are *retrograde motion* and *transits*. All the planets, including Mercury and Venus, exhibit retrograde motion. This term refers to the apparent backwards motion of a planet as seen from Earth, and when viewed against the background stars. A superior planet, being further from the Sun than the Earth, moves more slowly than the Earth. Such a planet will have a retrograde motion around the period of *opposition* when the Earth is 'overtaking' that planet. (The term opposition is used when a superior planet is opposite the Sun and is also approximately closest to the Earth, with the configuration being **Sun Earth Superior Planet**.) The planet seems to be moving backwards, simply due to the fact that the planet is dropping or falling behind the Earth. An inferior planet, in contrast, is seen to move in a retrograde direction while 'overtaking' Earth. A superior planet in retrograde motion appears to stop, reverse direction, stop again, and then resume its westerly progression across the sky. Retrograde motion, in reality, is an optical illusion (Mayall and Mayall, 1954; Nicolson, 1977).

A transit involves the passage of a smaller and nearer celestial object across the face of a larger background object. An annular or partial solar eclipse, strictly speaking, is a transit (Jones, 2007). Amongst the planets, only the inferior planets can transit the Sun. The rare transits of Venus take place in early June or early December (http://eclipse.gsfc.nasa.gov/transit/venus0412.html, accessed on the 12th of July 2012). Only eight transits of Venus have taken place to-date since the invention of the telescope. These were in 1631; 1639; 1761; 1769; 1874; 1882, 2004 and 2012. The next transits will be in 2117 and 2125. Transits of Venus occur at intervals of 8; 121.5; 8 and 105.5 years respectively. Transits of Mercury are likewise rare, but are more common than transits of Venus (http://eclipse.gsfc.nasa.gov/transit/catalog/MercuryCatalog.html, accessed on the 12th of July 2012). Transits of Mercury presently occur in early May or early November. May transits are approximately half as frequent as November transits. There are 13 transits of Mercury, on average, every century.

Many of the stars of significance in southern Africa, not unexpectedly, are bright and relatively easy to find in the heavens with the unaided eye. Constant observation, nevertheless, was required to track the passage of the celestial bodies across the sky during the seasons and from year-to-year. A critical issue which is seldom examined in the anthropological literature is how observers in southern Africa, in the distant past, constructed their mental maps of the sky. We simply do not know, with some exceptions, which 'key stars' served as astronomical landmarks in order to find other stars of relevance. Perhaps the answer depends in part (a) on the time of the year, and (b) when one retires for the night. The San and possibly the Khoikhoi, as already suggested, may have viewed the sky at various times of the night. A purely speculative thought is that some form of colour-coding of the stars (i.e. red versus white) could have been used on occasion as a guide to the layout of the night sky, although the success of this action obviously depends on several parameters. It will become apparent in this chapter that the time of observation of certain stars of significance varied amongst some groups in southern Africa (i.e. early morning versus at night), and also on a seasonal basis. A number of stars, although given a vernacular name, could not be identified in a modern astronomical sense, or were only tentatively identified. It is possible that a detailed investigation may prove beneficial in identifying such stars. One point of departure would be to examine a listing of the brightest stars in the sky, in terms of any clues provided by the original reporter of the information. A pertinent example concerns some Tswana stars.

African stellar knowledge

Readers should bear in mind that little or no distinction is made between stars and planets in the following discussion, except where indicated, in keeping with many traditional celestial beliefs. Use is instead made of the generic term: *stars*. Constellations are essentially a northern hemispheric notion, and were not a feature of the South Africa of yesteryear. It should be remembered, too, that northern hemisphere constellations appear upside down in the southern hemisphere due to perspective. There are, of course, constellations specific to the southern hemisphere, and which are not inverted. Certain so-called 'constellations' or associations of stars were indeed known to the indigenous inhabitants of southern Africa, which will become apparent below.

It is interesting to note that the clarity of the atmosphere in the early days at the Cape inspired the celebrated astronomer, Sir John Herschel, to remark that Venus shone very brightly, and that the light given out by the Moon was also markedly bright (Chase, 1967). Likewise impressed by the local atmosphere was Colonel Robert Jacob Gordon, the commander of the Dutch forces at the Cape in the late 1700s (Plug, 1994–1995). Gordon was much taken with the zodiacal light at the Cape itself and further afield, and found this light to be frequently very pronounced ('strong'), especially in winter. The zodiacal light or twilight arch is the curving or pyramid-like yellowish glow seen in the sky after sunset, when facing west. This effect is due to dust particles in the upper layers of the atmosphere and in space which scatter the remaining sunlight. The Sun, at this stage, is already a few degrees below the horizon. The same event can be seen in the eastern sky before sunrise and is known as a false dawn. The clear air in South Africa in past times would have considerably aided all those who sought meaning in the stars.

The Zulu

Some Zulu believed that the stars or *izinkanyezi* (singular = *inkanyezi*) were the children of the Sun and the sky (Krige, 1950). The word *inkanyezi* rather appropriately also means a firefly (Bryant, 1905). It was said that the stars are fixed in position and do not travel like the Sun and the Moon, although certain stars according to other beliefs, do travel and die like the Moon (Krige, 1950). Another viewpoint was that the heavens were the product of the accumulated smoke from all the cooking fires ever lit, while the stars were the lingering sparks from these fires (Bulpin, 1977). A different Zulu interpretation provided by Berglund (1989) is that the sky has perpetual light, and that the stars are small holes in the floor of the sky through which the light filters at night. It was said in explanation that when it had rained, and cattle were driven to the grazing grounds that they sometimes tramp through the mud. Their hooves go through the floor of the sky allowing those on Earth to see the light. Falling stars were due to the cattle being in a hurry (running) to reach the grazing area, and dragging the hoof which had trodden through the mud. The light of the falling star is seen before the mud fills the hole again (**refer to Chapter 6**). The Milky Way is the main entrance to the cattle enclosure or *isibaya*. The sky in this version is above the Sun and the Moon. Both of these two bodies move along their paths underneath the floor of the sky. Neither the Sun nor the Moon reaches up to the sky, since they must only shine on the Earth (Berglund, 1989). An old Zulu belief was that certain stars (*imulu*) showered blessings, when petitioned, on a girl of marriageable age at the time of her coming of age ceremony or *umemulo* (Mkhize, 2005). The following sections discuss the Zulu stars in some detail. The more modern Zulu spelling of the star names was taken from Koopman (2002) unless otherwise indicated.

Jupiter: iNdonsa; iNdonsakusa or iNdonsamasuku

The explanation given by Doke and Vilakazi (1948) is that the verb *donsa* means to 'pull, draw, drag, tug, strain'. The planet is so-named 'because of its slow movement, as though straining'. The word *iNdonsakusa* means 'what draws the dawn', while *iNdonsamasuku* means 'what draws on the days'. A further name for this planet, as per Doke and Vilakazi, is *iNqonqoyi*. Jupiter is the largest planet in the Solar System, and excluding the Sun, is second only to the Moon and Venus in terms of apparent magnitude (brightness). It is a fact that Jupiter, as seen from distant Earth, has an apparent slowness of motion when viewed against the stars (Mack, 1996; Mayall and Mayall, 1954; Jones, 2007). The Zulu reference to 'what draws the dawn' and 'what draws on the days' suggests that the appearance of the planet in the early morning was the prevailing perception of Jupiter (i.e. that this planet was then significant by announcing the arrival of another day to the Zulu).

Mars: iNdonsa

This name (see Jupiter) is also applicable to Mars 'as it rises in the evening' (Doke and Vilakazi, 1948). Callaway (1870) refers to *Indosa* (his spelling) as a star which rises before the Morning Star, i.e. when the night is already advanced. If men remain awake drinking beer, or eating meat at a wedding feast and see that *Indosa* has risen ('arises red') then they know it is time to sleep, since it is night. Callaway (1870) states further that in the morning *Indosa* is very high in the heavens, and that the Morning Star has risen. The key here would seem to be the red colour of the star which strongly suggests that Mars, and not Jupiter, is being described.

Mars is sometimes visible in the early morning twilight, and subsequently for various periods during the night. This planet disappears from sight every other year and usually remains invisible for a number of months (longer than any other planet). The apparent magnitude of Mars changes considerably as a result of a rather variable distance between Mars and the Earth, and reaches a maximum at intervals of 15 or 17 years around August or September. The planet is then especially noticeable in southern Africa. Mars approaches to within 56×10^6 km of the Earth, which is closer than any other planet with the exception of Venus. (Venus, in turn, approaches to within 40×10^6 km of the Earth.) The apparent magnitude of Mars varies from very bright to rather faint. Mars is generally a fairly inconspicuous celestial body, and is the faintest of all the naked-eye planets when at a maximum distance from Earth. The key identification mechanism for Mars is its colour. It is possible to confuse Mars with the red giants, Antares and Aldebaran, depending on the position of Mars and its brightness at the time of viewing (Mack, 1996; Rudaux and de Vaucouleurs, 1967; Fairall, 2006; Mayall and Mayall, 1954; Jones, 2007; Nicolson, 1977).

Orion's Belt: iMpambano

Orion's Belt consists of three prominent stars. These are Mintaka, Alnilam (the central and brightest star) and Alnitak. The original source of the Zulu information is Samuelson (first edition: 1929; second impression: 1974), repeated in Doke and Vilakazi (1948), and cited by Krige (1950). The celestial term used was the Orion's Belt constellation or the constellation of Orion's Belt. The correct term for Orion's Belt, however, is an asterism in the constellation of Orion. What is seemingly at fault here is Samuelson's understanding of a constellation as well as certain other astronomical topics. Koopman (2002) states that the Zulu name is derived from the verb *phambana*, which according to Doke and Vilakazi means to 'lie across one another; cross one another; pass one another', in the manner of roads crossing one another, or people passing each other at night, but without seeing one another.

Krige (1950) referred to a small string of stars faintly visible on the right of Orion's Belt, and known by the Zulu as *oNdwenjana* or *iNdwendweni*. The latter name was used in Natal. Koopman quoting Doke and Vilakazi (1948) gives the name, in the plural only, as *oNdwendweni* ('a small string of stars near Orion'); or *oNdwenjana*, in the plural only, which is the meaning first indicated in this paragraph. It should be noted that a string or line of three faint and fuzzy stars constitutes Orion's Sword (likewise an asterism), which is situated above the Belt in the southern hemisphere. The star seen at the base of the Sword is 42 Orionis, sometimes referred to simply as *c*. (Some older texts, however, state that sigma (σ) Orionis, a multiple star, constitutes the base or hilt of the Sword.) The star forming the centre of the Sword is theta (θ) Orionis, which is a multiple (quadruple) star. One of the best-known nebulae in the sky, M42 (NGC 1976) the Great Orion Nebula, is visible to the naked eye as a fuzzy patch and surrounds θ Orionis. The triple star at the tip or point of the Sword is iota (ι) Orionis, also known as Hatsya or Na'ir al Saif, and is the brightest of the three stars in the Sword (Jones, 2007; FitzGerald, 2005; Staal, 1961). The Zulu stars in question must surely be those of Orion's Sword. Orion is high in the sky in summer, with the Belt always rising due east and setting due west (Turk, 2001). Orion starts to disappear from view around May and is visible once more in the east, in the late evening, about October.

The Milky Way: uMthala

The Milky Way is a very prominent feature of the night sky and is readily visible to the naked eye in a dark sky. The Milky Way is said to resemble the inside of a cow's stomach, hence the Zulu name (I. Msomi). Bryant (1905) gives several meanings for the word, one of which is a 'strip of fleshy muscle encircling the paunch of cattle'. It is related that some Zulu were able to determine the time for daybreak from the orientation of the Milky Way in the sky (Lagercrantz, 1952). Rain, according to the Zulu, is coming when the Milky Way has a predominantly east-west orientation (i.e. in summer) (I. Msomi). No rain can be expected if the Milky Way is orientated in a north-south direction (in winter).

One of the regiments (*amabutho*) established by Mpande, the Zulu king prior to Cetshwayo, was known as uNokenke (Faye, 1923). The name of the regiment or *ibutho* relates to those Zulu who were in a state of passive resistance to Mpande, i.e. whose loyalty was somewhat doubtful. The regimental name is indicative of people whose battle formation has extended beyond control, or a bull which has become bitter to its royal possessor (although having the exclusive royal colour). The regiment was like the Milky Way: in sight, but quite out of reach or control. The source of the trouble concerned two sons of Mpande (Cetshwayo and Mbuyazi kaMpande) both of whom aspired to kingship. Mpande favoured Mbuyazi, with many Zulu preferring Cetshwayo (Faye, 1923). The regiment was founded in 1865 (Krige, 1950).

Venus

Venus is a very prominent feature of the night sky, and is the brightest object after the Sun and the Moon. Venus is so bright that it can cast a shadow when moonlight and artificial light are excluded. The planet can occasionally be seen in broad daylight with the naked eye. Venus, as previously discussed, is sometimes visible in the early evening in the west after sunset (the Evening Star), or in the morning before sunrise in the east (the Morning Star). Venus is then the first celestial object to appear in the evening, or the last to disappear in the morning (excluding the Moon in both cases). Venus rises or sets no more than 3 hours and 13 minutes before sunrise or after sunset respectively. Venus cannot be seen for the full duration of this period due to the proximity of the planet to the Sun. Venus is thus only visible for a maximum of about two hours a day in a dark sky. The planet can move rapidly from the evening sky into the morning sky (Mack, 1996; Rudaux and de Vaucouleurs, 1967; Jones, 2007).

The Zulu did not recognize Venus as one and the same celestial body. The Evening Star (*iSicelankobe*) and the Morning Star (see below), according to the Zulu, were the two wives of the Moon (Mbiti, 1970). The Morning Star feeds the Moon well, and the Moon grows bigger. The Evening Star, in contrast, feeds the Moon badly, resulting in the Moon becoming thinner. Werner (1933), in discussing this very belief, refers to the 'Bantu in general' rather than the Zulu specifically. It is not known how many groups in southern Africa associated Venus (when visible during full daylight) with either the Morning Star or the Evening Star. See **The Xhosa** below.

A star known as *iNqonqoli* rises at about 03:00 and precedes the Morning Star (Krige, 1950). The season of observation was unfortunately not given. According to Bulpin (1977) *iNqonqoli* was the first Morning Star whose name means to 'knock at the door' of night

(i.e. to warn that the great change of dawn is coming). Venus or *iKhwezi* was the second Morning Star. The name *iKhwezi* means 'the lifter up of the shadows and sleepers from the ground' (Bulpin, 1977). The Zulu, in the early days, invariably attacked their enemies soon after the Morning Star had risen (Becker, 1972). Callaway (1870) described the Morning Star (*iKhwezi*) as keeping 'its place constantly', and confirmed that the rising of the Morning Star indicated that morning was at hand. It was for this reason that both the sorcerer (*umthakathi*) and the spy (*inhloli*) rapidly turned back from their destinations in order to reach home before dawn.

A slightly different version provided by Samuelson (1974) is that *iNqonqoli*, the first Morning Star, rises at about 03:00 and is followed by *iKhwezi* at approximately 04:00. The time of the year is again not stated. The word *iNqonqoli* is apparently a corruption of *iNqonqothi*. This word, in turn, is derived from *Nqonqotha* or 'to knock at', as at a door knocked upon to be opened. The door knocked against (by *iNqonqoli*) was the door kept by *iKhwezi*, visible a little later, thus lifting and removing the curtain of night and bringing in morning. The last-mentioned term (*iKhwezi*) is derived from the verb *khweza*, which means 'to lift up as a dress and keep it from dragging on the ground'. Samuelson's family, while on a journey by foot or by ox-wagon, followed the Zulu custom and made fires to cook the morning meal or coffee when *iNqonqoli* rose. The oxen were released at that time to graze. When *iKhwezi* appeared the Samuelson family packed up, inspanned the oxen and proceeded on their way (Samuelson, 1974). Another name for *iKhwezi* is *iNkangakusa* (Doke et al., 1958). The latter name as per Koopman (2002) means 'attract the dawn'. Werner (1912) observed that the Zulu name of the Morning Star could be derived from the word *kweza* (the causative of *kwela*) meaning 'to ascend', i.e. the one who 'brings up' the dawn. The inference here is that dawn is drawn up or pulled up from below the horizon by the Morning Star once this star has risen.

The temporal role of the two stars under discussion was mentioned in a poem presumably written by a member of the Samuelson family, probably R.C.A. Samuelson. The poem entitled: Ode to Nkwenkweland was reproduced in full in Samuelson (1974). The relevant stanzas are given here:

A deep hush and peace now follows,
Indicating that the beasts have a rest,
And mean for a period to attest,
Their readiness to study their fellows.

The period for hush and silence glides away,
The Inqonqoli star "Uranus" now mounts the Eastern sky,
In the capacity of handmaid alway
To resplendent Ikhwezi star "Jupiter" quite undusky.

To the wayfaring Zulu Inqonqoli is a guide,
That he himself must bestir betide
Now that the third hour of another day
Has been announced by her smile far away.

The Ikhwezi, bright herald of the morn,
For the Zulu traveller, at about the hour of four,
Is a reminder that he should the main road adorn,
To prevent his time turning into vapour.

The setting for the poem is the old St Paul's Mission Station adjacent to Nkwenkwe Hill to the north east of Nkwalini (midway between Melmoth and Eshowe). The poem mainly describes the passage of the hours and natural occurrences associated with a particular stage of day or night (the behaviour of birds, insects, wild animals and some heavenly bodies). It would seem that a summer scenario is described in the poem. The present author, resident in an old established suburb of Pietermaritzburg with many trees, tested this supposition in terms of birds on several occasions in October and November 2011. The skies were clear at the time with no rain. The first bird calls were heard at about 03:30, increasing in volume and number from around 04:15 onwards as the sky grew progressively lighter. There is a degree of confusion in the poem since *iKhwezi* is very definitely Venus in the guise of the Morning Star. The identity of *iNqonqoli* is subject to conjecture, in reality. The only real clue that we have regarding *iNqonqoli* is that this body is seen just prior to Venus, when the latter is observed in the early morning. Samuelson, in the poem, appears to suggest that *iNqonqoli* is a planet. Uranus is a most unconvincing candidate for *iNqonqoli* for several reasons, not excluding the fact that this planet is on the borderline of naked-eye visibility.

The preoccupation with Jupiter was perpetuated in a handbook written by Rudolph (1948) for Zulu-English translators in the courts. The times of day, amongst other things, are given in this book. The first events of the new day are as follows: first cockcrow; second cockcrow; the appearance of the Morning Star; third cockcrow; the appearance of Jupiter; the descent of the fowls; very early morning; early dawn, and sunrise (Rudolph, 1948). The Morning Star is not named in the handbook, perhaps because detailed knowledge of the stars had died out by the late 1940s. It is also possible that it had been realized by then that any association of this star with Uranus was nonsense. It will be recalled that Samuelson's book was first published in 1929. It is not definitely known what celestial indicators operated when the stars in question were not visible in the morning sky. (See **Some further thoughts on the first Morning Star** later in the chapter.)

Samuelson (1974) refers to *iSicelankobe* as 'the drawer of days to their close', which is an apt description for the Evening Star. Doke and Vilakazi (1948) state that *iSicelankobe* means 'the one who begs for boiled mealies'. (Note the similarity below with one Xhosa name for the Evening Star.) The Zulu informed Callaway (1870) that the Evening Star was sometimes invisible, and sometimes seen. Jenkinson (1884), interestingly, described an event which occurred on the 7th of January 1878 when 'a bright star' appeared near the Moon at midday with the Sun shining brightly. Jenkinson was in Natal at that stage. The Africans in the area where the observation was made claimed that this celestial phenomenon 'foretold the coming war' with the Zulu (the Anglo-Zulu War of 1879). Intense heat and drought prevailed at the time, which may have encouraged the prophesy. T.P. Cooper confirmed that the details provided by Jenkinson (1884) were correct. The Moon, as per T.P. Cooper, was 'a thin crescent, 13% illuminated', with an elevation of about 40º above

the horizon. Venus, then in a crescent phase, had an apparent magnitude of –4.6 (which is about as bright as this planet can be). The Moon and Venus were in close proximity to each other. Two early Zulu language newspapers were named after the Morning Star. These were *Inkanyezi Yokusa* (first published in 1850), which was later succeeded by *Ikwezi* in April 1861 (Maclean, 2003). Venus clearly inspired some Zulu poets. Both Nxumalo (1965) and Sikakana (1966) produced anthologies with the word *iKhwezi* in the title. A predominantly Zulu language radio station, which broadcasts to central KwaZulu-Natal, is Radio Khwezi.

The Pleiades: iSilimela

The Pleiades, known as the Seven Sisters (seven stars), is an open star cluster in the constellation of Taurus. The Pleiades consist of Alcyone, Celeno, Maia, Merope, Taygeta, Asterope and Electra. The name of the cluster originates from Greek mythology, with these stars representing the seven daughters of Atlas (Staal, 1961). At least six stars in the cluster are visible to the perceptive naked eye on a clear and dark night. Estimates of the total number of stars in the cluster vary from some 200 (Nicolson, 1997) to about 500 (Rudaux and de Vaucouleurs, 1967). The Pleiades, as we shall see, play an important role in southern African astronomical beliefs. This is not surprising given that the Pleiades are the best-known open cluster across the world (Nicolson, 1977). It would be interesting to discover why this is so, although the reasons for the widespread appeal of the cluster are probably lost in the mists of time. An absorbing discussion of celestial mythology in several parts of the world is available in de Santillana and von Dechend (1999). Africa, excluding the Ancient Egyptians, is however only briefly mentioned. Themes covered in the book include the Pleiades, the Milky Way, creation and individuals climbing up into the sky (heaven) from Earth. The authors, drawing on scientific information as well as historical and literary sources, maintain that celestial myths are 'the remains of a preliterate astronomy'. Reference is made in this regard to 'an exacting science whose power and accuracy were suppressed and then forgotten by an emergent Greco-Roman world view'. The authors speculate whether all such myths have 'one common origin in a celestial cosmology'; and whether the gods, the places where they lived and their actions are 'ciphers for celestial activity' (i.e. 'a language for the perpetuation of complex astronomical data' over time).

The early morning rising of the Pleiades on the north eastern horizon, during the lunar month of June–July, was of significance for the Zulu. This event marked the new year and the beginning of the agricultural season when it was time to start digging or hoeing (*lima* = 'to dig'); or in more modern terms, to plough. The appearance of the Pleiades indicated that it was early spring (Bryant, 1905; Krige, 1950; Doke and Vilakazi, 1948). A Zulu expression states that: 'The Pleiades have now fetched the diggers' (Callaway, 1870). Callaway gives a different interpretation of the Pleiades, which according to his informants, are not seen in winter. These stars only begin to appear 'when the winter is coming to an end'. One star is seen first, then three, and later 'a cluster of stars'. The Pleiades are perfectly clear when the Sun is about to rise. It is at this stage that both *iSilimela* and the year are renewed, and it is time to dig. The Pleiades, when not visible, are thought to have died (Callaway, 1870). Another version is that the appearance on the horizon of the very first star of the Pleiades was taken as the actual beginning of the new

year, although this star was called *uCwazibe* (Mkando: one of James Stuart's informants cited in Webb and Wright, 1982). The star is discussed further below. The proper time for observing the Pleiades was an hour or so before daybreak (Dhlozi: another Stuart informant cited in Webb and Wright, 1982). The people cut handles for hoes and began hoeing the ground (i.e. *lima* or *gaca* or *qata*) as soon as they thought that the Pleiades had come into view. The first star of the Pleiades (*uCwazibe*) made its appearance in the latter part of the lunar month of *Great uluTuli* or *Great uNhlangula* or *uMaquba*. There was some argument as to whether the first star formed part of the Pleiades, or not (Webb and Wright, 1982).

There was often considerable debate in southern Africa generally, regarding the first positive identification of the rising Pleiades in winter, especially where hills obscured the horizon. Some claimed superior astronomical knowledge of the Pleiades, while others preferred to wait for additional evidence. Celestial observations, in any event, are subject to a number of constraints including dust in the air, atmospheric temperature variations, cloud cover, light in the sky (i.e. the phase of the Moon), and especially the eyesight of the observer. Light pollution is a modern curse, which severely restricts our view of the heavens. The visibility of the Pleiades is actually a good test for both visual acuity (sharpness of the eyes) and the conditions of observation. Some naked-eye observers can see 10 or 12 stars in the Pleiades in optimum circumstances.

The statement that the rising once more of the Pleiades indicates that it is time for ploughing is puzzling, since land preparation can only commence after the first spring rains have fallen in September–October. This fact is easily confirmed by anyone who attempts to dig a hole in their garden in June in the summer rainfall region. Great effort is required to achieve this objective due to the compact nature of the soil. There is still no enlightenment even if the lunar month of June–July, rather than the calendar month of June is invoked. It is probably the case that the reappearance of the Pleiades gives notice that the new year, i.e. the new season is in the offing, which will later be confirmed by various general indicators such as increasing air temperatures and longer periods of daylight. The spring rains supply final proof that it is once again time for agricultural activities to commence. Digging-sticks were used in historical times in South Africa for planting crops. There is clear evidence of iron smelting in KwaZulu-Natal especially, and to some extent in the Transkei, during the Iron Age (Feely, 1985). The Zulu digging-stick or hoe had an iron blade with a wooden handle. It was the task of the Zulu women to undertake crop cultivation. Animal-drawn ploughs, operated by the men, were a much more recent innovation introduced by the missionaries (J.M. Feely).

Other stars

Aldebaran or *uCwazibe* is a large bright star in the constellation of Taurus (Bryant, 1905); where *cwazi* means 'of shining brightly' (Doke and Vilakazi, 1948). Doke et al. (1958) give *uCwazibe* as an alternative for *iSicelankobe* or the Evening Star. A conspicuous star in the constellation of Argo was referred to by the Zulu as *iNkwenkwezi* (Krige, 1950). This celestial body is actually the brightest star in the constellation of Carina, and is known as Canopus. The constellation of Argo is an ancient constellation which was subdivided in the 1920s into three separate constellations: Carina, Vela and Puppis. Canopus is a very

prominent temporal indicator which precedes the rising of the Pleiades, and which appears on the south eastern horizon in the early morning in mid-late May. In astronomical terms, this event is described as a *heliacal rising*, specifically, the rising of a star just prior to the Sun at dawn, and after a period of invisibility due to *conjunction* with the Sun. (The term conjunction refers to the alignment or close alignment of two or more celestial bodies.) Canopus disappears from view in the evening sky around the end of July, and rises once more (east of south) around the end of September at about 21:00 (C. Turk). Canopus, in early October, is a readily visible sign for star-gazers that summer is approaching (Turk, 2001).

Krige (1950) also mentions a star (*iQhubankomo* or *iNtshola*) which is a possible reference to Spica in the constellation of Virgo. The star precedes the Morning Star around September, and indicates the time when stolen cattle were carried off. The name was only used in Natal (Krige, 1950). Spica, however, does not rise in the early morning in the east until about November. Sirius, in the constellation of Canis Major is another candidate, and rises in the early morning in the east about mid-June (R.B. Roth). Further Zulu celestial names are Saturn (*enye yezinkanyezi ezinkulu*) and the Southern Cross (*izinkanyezi eziyisiphambano ezulwini*) (Doke et al., 1958).

Unidentified celestial bodies
Two unknown stars were *Insansa* [Koopman = *iNtsantsa*] which was described as a bright star, as well as *isAndulela* (also a bright star) which appears at the end of autumn (Krige, 1950). The latter name was used in Natal only. Krige mentions the constellation of Pons Asinorum or *isiNdwengama* which likewise cannot be identified.

The Swazi
The Swazi word for a star or planet is *inkhanyeti* (plural = *tinkhanyeti*) (Rycroft, 1981). Very little appears to have been written on Swazi celestial beliefs. Miller (1979) stated that only the Morning Star and the Evening Star were of primary importance for the Swazi. The only specific star mentioned by Kuper (1961) is one which is seen in the Swazi lunar month of *Lweti* (November). This star is said to be visible 'when women begin work in [the] early morning'. It is not impossible that the star could be Venus in the guise of the Morning Star (see *Likhweti* below). The Swazi when setting off early on a long journey (in the old days) used the Morning Star as a means of determining direction (D. Ntiwane: an informant interviewed by W. Williams). The appearance of the Pleiades or *silimela* once signalled the time to start ploughing (Vail and White, 1991).

It is apparent from the description of the Feast of the First Fruits ceremony or *Incwala* provided by Kuper (1961), that the 'position of the stars' is ancillary to the Sun and the Moon in determining the timing of the ceremony. It is evident that a celestial regularity is required over the years, which precludes any of the planets. Vail and White (1991), nevertheless, state that the timing of *Incwala* is indicated by the position in the sky of the Morning Star. One possible stellar candidate is Orion, more specifically Orion's Belt, which as indicated was known and named by the Zulu. Orion can be seen without any difficulty above the eastern horizon in mid-evening during December (Fairall, 2006).

The lack of data on the stars in Swazi culture has been attributed by some in present-day Swaziland to the secrecy surrounding the innermost workings of *Incwala*. It is strange therefore, that information on the role of the Sun and the Moon in this ceremony is readily accessible in scholarly journals and books. Also strange is that celestial information is available for the Zulu who can be said to be the 'first cousins of the Swazi'. It is the opinion of the present author that Swazi astronomical data were simply never recorded, or were indeed recorded, but have been lost. Another possibility is that the information is to be found in some publication or publications written in siSwati, and never translated into English.

Enquiries made in Swaziland revealed the following tentative celestial terms. The informants were mainly elderly Swazi women. No guarantee can be given regarding the accuracy or antiquity of the information, which was kindly supplied by D. Ntiwane; P. Mamba-Mnisi (facilitated by W. Williams), and by W. Williams.

- *Likhweti* = Venus as the Morning Star, which is a star seen when summer is approaching (P. Mamba-Mnisi). *Likhweti* is the correct term and spelling for the Morning Star (Venus) according to J.J. Thwala;
- *uMtsentse* = the Milky Way (P. Mamba-Mnisi);
- *Siphambano* = this word, given the Zulu term, could be the Swazi name for Orion's Belt. According to P. Mamba-Mnisi, however, the word refers to any type of cross including a religious symbol, and could perhaps be applied to the Southern Cross;
- *uMushi wenkhosatana* = the Southern Cross (D. Ntiwane);
- *Sicelankhobe* = Venus as the Evening Star. The name was taken from the title of a book on Swazi folklore, which was written by a Swazi author (Mabaso, 1992);
- A shooting star = *inkanyeti iyakhweba*: literally 'a star running fast' (P. Mamba-Mnisi; W. Williams);
- A lunar eclipse = *inyanga sitsekile* or *inyanga iyashobela*: literally 'the moon taken or the moon gone down' (P. Mamba-Mnisi; W. Williams);
- A solar eclipse = *lilanga sitsekile* or *lilanga iyashobela*: the same meaning as for a lunar eclipse (P. Mamba-Mnisi; W. Williams);
- The winter solstice = *intfasahlobo*: literally 'leaving winter and going into summer' (P. Mamba-Mnisi; W. Williams);
- The summer solstice = *intfasabusika*: literally 'leaving summer and going into winter' (P. Mamba-Mnisi; W. Williams);
- The equinoxes = *ekhatsi nelihlobo*: literally 'the middle of summer' and *ekhatsi nebusika*: literally 'the middle of winter' (P. Mamba-Mnisi; W. Williams).

The Xhosa

There is not much information readily available for the Xhosa stars or *iinkwenkwezi* (singular = *inkwenkwezi*). It seems that the Xhosa, historically, did not differentiate between stars and planets. The Xhosa referred to the stars collectively as *inkanyisi* or fireflies (A.P. Dold). Astronomy, as per Fischer (1985), is thought of by the Xhosa in a more recent context as *inzululwazi ngeenkwekwezi* or 'knowledge of the heavens and the stars'. The Xhosa in the past, according to Hodgson (1982), never gave much thought to cosmology, since the heavenly bodies did not intrude in their lives in the same way as thunder and lightning. The Xhosa only took note of a few prominent stars as well as the Sun and the Moon. There was no speculation about the nature of the heavenly bodies, or their movements, and neither were they personified. It was once considered disrespectful to point a finger at an elderly person, at the grave of an ancestor, or at the sky which was the dwelling place of Qamata (Hodgson, 1982). Anyone wishing to point at something in the sky did so by means of a bent index finger or a fist. Hodgson noted that the Qamata taboo was still widely observed by the Xhosa in the late 1970s. A possibly more contemporary version is that the stars represent the spirits of the dead, and should not be directly pointed at (T.E. Matomela). Venus features as for the Zulu, with Canopus, the Pleiades, Jupiter, the Milky Way, Orion's Belt and Sirius also of relevance.

Venus

The Xhosa, like the Zulu, regarded Venus as two distinct celestial bodies. The Xhosa Morning Star is *iKhwezi* (Kropf and Godfrey, 1915). This star was a sign to the Xhosa that dawn was coming (P. Cimi). It was the time to prepare for the new day for those going to the fields to plough or to plant. Travellers embarking on a long journey set out at this time, in the full knowledge that it would soon be light. It was also at this time that traditional healers (*iigqirha*) went down to the river (before anyone else) to wash, or to prepare for ritual ceremonies which were to be held later in the day. The traditional healers, in the latter case, communicated with the ancestral spirits or *iziNyanya* resident below the water in the river. It was essential that the healers were not disturbed during their preparations, failing which, the rituals might not be successful. It was therefore important for the healers to be the first to arrive at the river (P. Cimi). Kopke (1982), interestingly, describes a two-stage Morning Star, as per the Zulu. Kopke referred to the morning twilight or *isifingo* when the first star, *iKhwezi lokuqala*, rises above the eastern horizon. This is followed some time later by the second star, *iKhwezi lesibini*. No further details are available in Kopke (1982). T.E. Matomela states that the first star, *iKhwezi lokusa* (note different spelling), is associated with travellers as well as diligence (i.e. is the signal for the daily household chores to commence). Matomela confirms the spelling of the second star as *iKhwezi lesibini*, although he maintains that this star is Venus when seen at midday. The sighting of Venus in full sunshine is not an everyday occurrence, however. Soga (1931) refers to *iKhwezi lokusa* as Venus in the form of the Morning Star, with *iKhwezi* as one name for the Evening Star.

The earliest known writings in Xhosa by a Xhosa are said to concern the story of Ntsikana, a Xhosa prophet and poet (Hodgson, 1984). This account was written by his son, William Kobe Ntsikana and two of Ntsikana's disciples. (See **Some stories and poems concerning the heavens** later in the chapter.) The material appeared in the Glasgow Society missionary

magazine *Ikwezi*, which was published in Lovedale. The magazine had a brief existence (consisting of four issues) in the period August 1844 until December 1845, before being replaced by another publication (Hodgson, 1984).

The Xhosa Evening Star is *uCelizapholo* or the 'one who asks for milk' (Kropf and Godfrey, 1915). A different name is *uNocelizapholo* or 'asking for the leavings of milk in the cow's udder'. The star was so-named since it appears (shines) at milking time. Another name for the Evening Star, as per Kropf and Godfrey, is *isiCelankobe* ('one who asks for cooked millet'). There are very few people at the river at this time of the day (P. Cimi). All is quiet with no birds calling. This is a good time to communicate with the ancestors, and is also an ideal time for certain rituals to be performed. This is likewise the time when youths undergoing initiation (circumcision) go to the river to wash. Initiates, alternatively, wash very early in the morning in similar reclusive circumstances (P. Cimi). A further name for the Evening Star is *uMadingeni* (T.E. Matomela). Matomela refers to Venus in this context as a dating star. The inference here is that lovers only have a certain amount of time together while Venus can be observed. See **Unknown or unidentified Tswana stars** below.

Canopus

It is in mid-late May that Canopus or *uCanzibe* becomes readily visible on the south eastern horizon, as described, just before sunrise. Canopus can be seen for a few minutes at this time of day, when the morning light has already obliterated the other stars from view (Kopke, 1982). The appearance of the star indicates the time for harvesting (Kropf and Godfrey, 1915). The star can also be said to be the harbinger of winter (T.E. Matomela). Canopus gives its name to the Xhosa lunar month of May or *ekaCanzibe* (Kropf and Godfrey, 1915; Kopke, 1982).

The Pleiades

The Xhosa name for the Pleiades (*isiLimela*) means 'the one that ploughs for', i.e. that which ushers in the ploughing season (Soga, 1931). The traditional Xhosa year began in June when the Pleiades were sighted once more in the early morning (Peires, 1981). These stars signalled the time when the wooden digging-sticks or hoes were hauled out in the old days, or in more modern terms, when ploughing began. Kropf and Godfrey (1915) state that the rising of the Pleiades signifies that spring has arrived, and that it is the time for ploughing wheat. This was also the time of the year when initiation ceremonies (*ulwaluko*) were performed (Tshabe and Shoba, 2006). Kopke (1982) indicated that June was the month when circumcision initiates had their 'coming out' ceremonies, which was the last rite before the initiates were regarded as adults. Kopke (1982) drew a parallel between the advent of the new year, as signified by the Pleiades, and the new start in life of the young adult men. A Xhosa man once calculated his age (manhood years) according to the number of winters (number of appearances) of the Pleiades since his initiation, or the years elapsed since his time of separation or seclusion in the initiation lodge (Tshabe and Shoba, 2006; Kopke, 1982). Kopke (1982) suggested that the closeness on the horizon of the rising Pleiades and the rising Sun at the winter solstice was noted by the Xhosa. The Xhosa may have used the most northerly position of the Sun, or a close approximation thereto, as a temporal and logistical marker to observe the reappearance of the Pleiades. The Pleiades,

at the winter solstice, rise about 18° to the left of the Sun, while looking east (T.P. Cooper). The sighting of this star cluster, resembling seeds, gives its name to the Xhosa month of June or *eyeSilimela* (Kopke, 1982).

An interesting concept was raised by Hammond Tooke (1888) who suggested that reference to hoeing time, 'the beginning of spring' and the first appearance of the Pleiades may date to past centuries when the Xhosa, or their forebears, lived in 'more northern latitudes'. The theoretical land in question, then, would be one where the *first* rising of the Pleiades in June coincided with the *first* or significant seasonal rains after a lengthy dry period, enabling the breaking of the soil to commence. Much obviously depends on the rainfall regime in this hypothetical locality, which could possibly be surmised to be somewhere in south central Africa or East Africa. Evidence cited by Hammond Tooke (1888) in this regard is that the Swahili word for the Pleiades is *kilimia*, where *kilimo* refers to cultivation or planted crops, and *kulimo* means 'to hoe or cultivate'. Are we perhaps, in certain instances, receiving 'dislocated information' from some 'golden age' of the past, before the group concerned migrated to South Africa from elsewhere in Africa? (**See Chapter 2** in respect of the Xhosa *uHlanga*.) Migration raises another issue. Did the Xhosa antecedents (and the antecedents of other Bantu-speakers) set out to travel in a southerly direction by design? If so, this implies knowledge of a 'north' and a 'south' or an 'up Africa' and a 'down Africa'. It can only be speculated that use was made of the Sun for directional purposes while actually travelling. This suggestion, in turn, implies a degree of navigational skill attuned to the Sun. It was obviously dangerous to move around at night, which more or less excludes the stars as a way-finding mechanism.

There appears to be some divergence of opinion in South Africa regarding the *timing* of the Pleiades as an indicator that land preparation should begin. Refer to the **Southern Sotho (Basotho)** below. The Pleiades clearly operated as a signal for certain events for the Xhosa, although the start of hoeing or ploughing in June or July, in reality, cannot be one such function. Another line of reasoning, perhaps, is that the first rising of the Pleiades was the signal for land clearing to commence, prior to actually digging the soil later in the year. It is highly unlikely, quite apart from soil parameters, that the Xhosa would undertake such a task so soon after the harvest. The post-harvest phase in winter was a time of rest and social interaction. An additional factor is that cattle are allowed to graze in the fields following the harvest, effectively achieving a degree of land preparation.

Further celestial objects

The Xhosa sometimes associated Jupiter with travelling at night. The planet is visible throughout the night in certain months, and 'somehow seemed to guide the traveller' (Fairall, 2006). There are two Xhosa names for Jupiter (T.E. Matomela). The first, according to Matomela, is *iCandabusuku* or 'that which crosses the sky'. The planet was associated with a vessel or container which carries benevolent ancestral spirits who guard the people against evil influences. Another name for Jupiter, as per Matomela, is *iMbhalibusuku* or 'that from which night stories are told'. The planet was occasionally pointed out by night travellers in particular who related stories about the planet. It was said that Jupiter expelled evil spirits from the celestial sphere, which became visible as shooting stars. McLaren (1955) described Jupiter as *Ingcand'ubusuku* or 'the traverser

of the night'. McLaren (1955) also used a second term, *Imbal'ubusuku* or 'the recorder of the night', although it is very probable that Jupiter was meant in this case. The Xhosa name for Sirius is *iNgqaqhawuli* or *iQhawe* (T.E. Matomela). The Milky Way is known by the Xhosa as *umnyele wezulu* or 'the backbone of the heavens' (Fischer, 1985). Soga (1931) refers to the Milky Way as 'the raised bristles along the back, as on an angry dog'. The analogy, irrespective of the description used, is apparent. The row of stars forming Orion's Belt is referred to as *amaRoza* (Kropf and Godfrey, 1915); or 'a row of beads' as per Hammond Tooke (1888).

McLaren (1955) described Canopus as *Isoka lasekhohlo* or 'the suitor on the left hand', and Sirius as *Isoka lasekunene* or 'the suitor on the right hand'. The given celestial scenario is evident for about a month towards the end of May or the beginning of June, when Canopus and Sirius set in the evening in the west (T.P. Cooper; C. Turk). Both stars are very low down on the horizon, at more or less the same elevation. The observer facing in a south westerly direction will see Canopus on his left and Sirius on his right (T.P. Cooper; C. Turk). The Xhosa, it seems, were clearly intrigued by this stellar arrangement, which was evident at harvest-time. Readers are reminded that Sirius (right hand) is the brightest star in the night sky, while Canopus (left hand) is the second brightest star.

Still puzzling, however, is the use of the term 'suitor'. It is not impossible that the positions of Canopus and Sirius, at the time described, reminded the Xhosa of the physical or spatial layout of a typical polygynous household (*umzi*), with a number of dwelling huts. The principal hut of the household faced the entrance to the cattle enclosure or *ebuhlanti* (Hoernlé, 1966). All the other huts were ranged on either side of the principal hut in a semi-circle. Each family or 'house' (*indlu*) formed an independent unit with its own property. Two wives were of significance, namely, the first wife married or principal wife (*inkosikazi*) and the 'right-hand wife' (*umfazi wasekunene*), so-called from the position of her huts in the household complex. Any other wives married were affiliated to the two principal wives as subordinates, and were known as *Qadi*. The Xhosa counted right and left from the perspective of someone looking out from the principal hut door (vantage point) *towards* the cattle enclosure (open space). The layout of the *umzi* had several important implications denoting seniority, and amongst other things, inheritance (Hoernlé, 1966). It is suggested, then, that the layout of the household may have had relevance for the configuration of Sirius and Canopus. Canopus, although not as bright as Sirius, is of greater significance for the Xhosa in an agricultural and thus household sense.

The following celestial names were derived from Bud-M'belle (1903). The names refer to the Xhosa-speaking people in the eastern Cape, including the Xhosa. Some of the names given by Bud-M'belle were translated directly from Latin (possibly by Bud-M'belle) and are not indigenous, although they may have been used by mission-educated Xhosa-speakers. All such names, which are of constellations, appear in the first list below. The exact spelling, as per Bud-M'belle, has been retained.

- ***I-Nja 'nkulu*** = Canis Major or the Greater Dog;
- ***I-Nja encinane*** = Canis Minor or the Lesser Dog;
- ***I-Sikepe sika Ago*** = The ship Argo (Carina?);

- ***I-Sitya*** = Crater or the Cup/Beaker;
- ***I-Sitebe*** = Ara or the Altar;
- ***I-Ntlanzi zase zantsi*** = Piscis Austrinus (Piscis Australis) or the Southern Fish;
- ***I-Sitsaba sase zantsi*** = Corona Australis or the Southern Crown;
- ***I-Hobe lika Nowa*** = Columba Noarchi (officially known as Columba or the Dove);
- ***U-Mnqamlezo wase zantsi*** = Crux Australis (now simply called Crux or the Southern Cross);
- ***U-Pondo 'lunye*** = Monoceros or the Unicorn.

Further names provided by Bud-M'belle (1903), although already discussed above, are as follows:

- ***U-Canzibe*** = The large reddish star Saturn, which is visible in the southern hemisphere in winter. Bud-M'belle was mistaken in this case. The true identity of the star, as previously indicated, is Canopus;
- ***U-Cel-izapolo*** = Venus as an evening star. The Abambos (the Mfengu) call it *isi-Cela nkobe*;
- ***Ama-Roza*** = The constellation (i.e. asterism) of stars called Orion's Belt;
- ***Isi-Limela*** = The Pleiades which announce the time for ploughing. The planet Jupiter. It is unclear why Bud-M'belle believed that the Xhosa name also applied to Jupiter;
- ***U-Mnyele*** = The Milky Way in the sky;
- ***I-Kwezi*** = Venus as an evening star;
- ***I-Kwezi-lokusa*** = Venus as a morning star.

Bud-M'belle (1903) referred to a transit of Venus on the 9th of December 1874 as one of the historic events known of, or experienced by Xhosa-speakers. The rare transit was of Venus across the Sun. The transit began at 03:49 and was thus already underway at sunrise (T.P. Cooper). This phenomenon could easily be seen with the naked eye just as the Sun came up. Venus would have appeared as a round black hole 'within' the Sun.

The Ndebele

The Southern Ndebele term for a star is *ikwekwezi* (plural = *iinkwekwezi*). An alternative term for a star is *ingcwethi* (singular) and *iingcwethi* (plural) (Shabangu and Swanepoel, 1989). Note that neither *ingcwethi* nor *iingcwethi* is officially recognized in terms of the Southern Ndebele Spelling Rules of 2000 (A. Wilkes). Wilkes observed that the spelling of the names of various stars in Southern Ndebele is probably much the same as in Zulu. The names of three stars are given in Fourie (1921) for the Ndzundza Ndebele. These are: *ukwezi uthwasile* (the Morning Star); *umdhlazidhlo* or the Evening Star, and the Pleiades or *isilimela* which 'regulated' the cultivation season.

Information is also provided here for the Langa Ndebele (Mapela). Canopus or *naka* was of importance for the Langa Ndebele (Jackson, 1969). Men kept watch when they knew that the time of appearance of this star was at hand. The first person to sight Canopus began ululating. The refrain was taken up by one village after the next, until all were aware that *naka* had been seen. The man who first observed the star informed the chief who rewarded him. The significant lunar month in which *naka* appeared was known as *kgwedi ya naka* or 'the month of Canopus'. The sighting of this star permitted adjustments to be made, if necessary, to ensure the accuracy of the annual calendar. This periodic adjustment was only required once every third year, when the star would have appeared a month late as per the conventional seasonal indicators (**see Chapter 3**). Other criteria for the re-orientation of the calendar were signals such as the nesting of a bird species or the budding of a certain tree. Canopus, nevertheless, was the most reliable mechanism for this purpose. The calendar was amended by deciding on the particular month in terms of the natural phenomena observed, and then renaming the previous few months accordingly. The Langa Ndebele, in later times, were aware that Canopus appeared in their locality on the 25th of May each year (with regard to the western calendar). It was thus unnecessary to keep watch for the star, as in the past. The month of May in the traditional calendar was *Moranang* (*wa naka*) or the month in which Canopus is first seen in the early morning. The name also refers to the small insects which hover around the ears of the sorghum (*mabele*) crop during this month. These insects are said to feed on the *modula* or pollen, some of which still adheres to the ears of the sorghum (Jackson, 1969).

A scientific explanation for the behaviour of the stated insects was kindly provided by J. van den Berg. The insect is the Sorghum Midge or Sorghum Muggie (*Stenodiplosis sorghicola*) which is the biggest pest of sorghum in the world. It has been observed in a northern South African locality similar to the Langa Ndebele area that sorghum planted later than usual in the season (in December or January) has some panicles which may still be green in May. In such circumstances, there are many small infertile panicles on the side shoots (tillers) of the sorghum crop. [Note that a panicle can be defined as a cluster of flowers which grow on the end of a branch or shoot. Panicles are a type of flower cluster known as a raceme. Each flower has the potential to develop into a fruit or seed.] These unproductive flowers create a micro-habitat where there is some moisture, humidity, and most importantly, open flowers in which certain species of insects lay their eggs. The insects presently under discussion (resembling small mosquitoes) are found in abundance, hovering in a 'cloud' around the small panicles. This occurrence is especially apparent in the cooler conditions in the early morning and in the late afternoon (J. van den Berg). Jackson (1969) was therefore incorrect in referring to pollen.

Also of interest with regard to the Ndebele are the views of Credo Vusamazulu Mutwa, a somewhat controversial South African diviner, author and keeper of the 'ancient African secrets' regarding *inter alia* celestial and terrestrial gods. Mutwa has suggested that there are various 'star tribes' in Africa who have detailed celestial information (Tellinger and Heine, 2009). Mutwa referred in a southern African context to the Ndebele who have ancient knowledge of the '*Mbube* star of Orion – the Far-walking Constellation or *Umhabi*'. It is unclear whether this claim is applicable to the Ndebele in Zimbabwe, or to the South African Northern Ndebele or the South African Southern Ndebele, or to all three groups.

It is not impossible that Mutwa had in mind one or more of the six faint stars in a curved line to the west of Bellatrix, and which constitute Orion's Shield or the Lion's Skin (π^1–π^6 Orionis). The assumption in this case is that *mbube* means 'lion'.

The Northern Sotho

Mönnig (first edition: 1967; second impression 1983) observed that the Pedi knew many planets or stars and constellations by name, although he discussed only a few examples. The Pedi did not distinguish between the planets and stars, which were simply described as *dinaledi* (singular = *naledi*). Considerable attention was paid to the regular seasonal variations (cycles) of the heavenly bodies. These objects, including the Sun and the Moon, were 'strongly soul-invested' and had *seriti* (a spirit: as in being spiritual), which could have a marked influence on the people and especially nature. A close watch was kept on the heavens to determine whether the appearance of the celestial bodies was favourable or unfavourable (Mönnig, 1983). Readers are reminded that there are several Northern Sotho dialects and thus variations in the spelling of words. One example of a peripheral Northern Sotho dialect is that of the Pai who live in the Pilgrim's Rest district of Mpumalanga. A star in the Pai dialect is known as *inenedi* (singular) and *tinenedi* (plural) (Ziervogel, 1954). The stars, according to the Northern Sotho, were the eyes of the ancestors. Widows did not like to sleep when many stars were visible, and preferred to look up at their (deceased) husbands (Watson, 1983).

Achernar, Canopus and the Pleiades

Achernar or *Senakane* (the 'little horn') appeared in the Pedi lunar month of April (Mönnig, 1983). Achernar signified a time of danger. The green of summer 'becomes scorched', with the harshness of winter then evident. Many prohibitions (taboos) were observed during April, which was the end of the Pedi year. No marriages and new initiation ceremonies could take place in this month, with all court cases usually postponed until another time. No army was ever sent out in April, given that defeat was inevitable. The first sighting of *Naka* or Canopus ('the horn') in the lunar month of May was eagerly awaited. May was the beginning of the Pedi year and was also the first month of the Pedi winter (*marega*). The people rose very early in the morning, since it was believed that the first person to see Canopus would have a prosperous year. The sighting of this star, a good omen, was reported to the chief or *kgoši*, and was further believed to have a beneficial influence on the initiation rites (if the chief decided to begin a new session thereof at that time). The rising of the Pleiades (*Selemela*) in the lunar month of July, the last month of the Pedi winter, was a good omen for the forthcoming agricultural season. The Northern Sotho word *selemo* means 'summer' or 'the ploughing season' (Mönnig, 1983).

Achernar was known as *senakane* or 'hornlet' (the diminutive of *naka*) by the Northern Sotho in general (Beyer, 1919). The vernacular name of Achernar suggests that this star was regarded as the temporal precursor to Canopus. Beyer (1919) confirmed that the Northern Sotho kept a sharp watch for Canopus or *naka* ('the horn') around the time that the star was expected to become visible. The person who first advised the chief of its appearance received the gift of a heifer, or more latterly, some other reward. The sighting of Canopus once again signalled the end of the old year and the beginning of the new year. The chief, that very day, summoned his diviners (*dingaka*) to his place of residence.

Each diviner or *ngaka* consulted his divining bones or *ditaola* to determine what the new year would bring, either good fortune or bad luck.

A slightly different version of the morning rising of Canopus was provided by Medupe (2005a). This event not only signified the beginning of winter, but was also the start of initiation for boys. Young Northern Sotho men, in the past, used to set up camps on hilltops to search for the rising of Canopus. The first one to see this star announced his discovery to the entire village by blowing the *phalafala* or sable antelope ceremonial horn. The villagers then knew that it was time to send the boys for initiation. The finder of the star was rewarded with an ox (Medupe, 2005a). The diviners gathered together the next day to establish what the new year would bring (Watson, 1983). According to Franz (1931), the diviners on the day after the sighting of *Naka* went to the river early in the morning to wash their divining bones. The bones were placed in water which was 'perfectly still', and in which the colour of the bones was clearly visible. [This suggests a shallow pool in direct sunlight.] The diviners could foretell what type of year was expected by examining the colour of the bones. The year could bring plenty, famine or misfortune. The diviners gave the chief medicine (*sethokxolô*) when the colour of the bones revealed that a war, or diseases or epidemics of some kind could be expected. The purpose of the medicine was to prevent these grim events. The chief, acting on the advice of the diviners, called together all the boys who had 'not yet lost any semen' (i.e. boys under the age of puberty). The medicines (*dithokxolô*) were handed to the boys to put along the borders of the country, thus protecting the population (Franz, 1931).

It is related that a certain prophet, Mamathula, was able to foretell agricultural conditions later in the year (i.e. rain or drought) by observing the first rising of Canopus (Hoffmann, 1929). Mamathula's sons were similarly gifted and could do likewise. The specific day when Canopus was first seen was significant according to some Northern Sotho (Hoffmann, 1932). It would be a good year if Canopus was observed on the 24th or 26th of May, although a bad year if seen on the 25th of May. A first sighting on the 27th of the month meant that a chief somewhere in the area would die. An appropriate Northern Sotho expression regarding Canopus is *naka e tšhumilê/ragilê*, which means 'frost has fallen, it is very cold' (Ziervogel and Mokgokong, 1975).

Both Canopus and Achernar have their 'shield' which accompanies the two stars as they travel in the heavens (Beyer, 1919). Canopus's shield was known as *sethlako sa naka* (i.e. the Large Magellanic Cloud), while that of Achernar (the Small Magellanic Cloud) was *sethlako sa senakane*. D. Ambrose (in an interpretation) states that *sethlako* corresponds to the Sesotho word *sehlako* or 'shield', from which is derived the verb *hlakotsa* 'to parry' or 'to avoid'. *Setlhako* (note difference in spelling) in both Sesotho and Setswana, however, more often means a 'shoe' or a 'sandal', or quite commonly the 'hoof of an animal' in the form *tlhako* (D. Ambrose).

The Southern Cross, Sirius, Orion's Belt and the Pleiades

The Lovedu or Lobedu thought that the setting of the Southern Cross just before bedtime in *Morenane* or the lunar month of October was a sign that the first spring rains were imminent (Krige and Krige, 1980). This belief extended to the Northern Sotho generally (Watson, 1983). The Northern Sotho name for both the Southern Cross and a giraffe is

Thutlwa (Ziervogel and Mokgokong, 1975). According to one Northern Sotho variant, the Pleiades are the seven virgins who flee from Sirius (the hunting dog) (Watson, 1983). The hunting dog also chases the three wild pigs *Makolobe* (or *makolobe* as per Beyer, 1919), which are the three stars of Orion's Belt. Winter is coming when the Pleiades are low on the north western horizon in late March. The cold weather will begin to strike the trees, with the leaves falling as soon as the Pleiades are no longer visible in the sky in April. The reappearance of the Pleiades in July was a sign to the Northern Sotho that it was time to start ploughing (Watson, 1983).

Beyer (1919) confirmed that the Pleiades or *selemela* indicated the forthcoming time for ploughing. Likewise of significance as an indicator that ploughing should start was *thutlwa* (Beyer, 1919). This star association consists of two stars of the Southern Cross (alpha and beta Crucis) and the two Pointers to the Southern Cross, alpha and beta Centauri. The former stars were regarded as male (*tshe ditona*) and the latter as female (*tshe dithsadi*). Ploughing time was at hand when these stars were observed low down and close to the south western horizon or *monapi* just after sunset (Beyer, 1919).

Jupiter, Venus and the Milky Way

Jupiter is referred to by the Northern Sotho as *kgogamashego* or 'the drawer up of night' (Beyer, 1919). Venus as the Morning Star is known as *Mahlapolane* or *Mphatlalatšane*, while Venus as the Evening Star has three names (Ziervogel and Mokgokong, 1975). These are: *Sekgopetšane*; *Kgokamašego* or *Kgogamašego*, and *Rongwanyane*. Mönnig (1983) in discussing *Mahlapolane* noted that the position of this star in the sky was very important to the Pedi. A good year could be anticipated when the star was observed in a western elongation. Very hard times, in contrast, were coming if the star was seen in an eastern elongation. Mönnig described this star as Mars, which is a most unlikely candidate. It is the opinion of the present author that the appropriate celestial object is Venus: a viewpoint endorsed by Ziervogel and Mokgokong (1975). Venus as the Morning Star, according to Beyer (1919), is known as *mahlapholane* or *naledi ea masa*, and tells the Northern Sotho that dawn is coming soon. The Evening Star, in contrast, is *sefalabogogo* or 'the crust scrapings'. Anyone who arrives for supper by the light of this celestial body will get nothing to eat except the scrapings of the pot. Another name for the Evening Star is *kopa-dilallo* meaning 'the one which asks for supper'. The rationale here is that Venus appears when the Northern Sotho have their evening meal (Beyer, 1919).

The Northern Sotho refer to the Milky Way as *Molalatladi* or 'the resting place of the lightning bird' (Watson, 1983). It is said that the first children of Modimo walked along that road (the Milky Way) towards the rising Sun (from whence came the mythical lightning bird). This occurred at a time when the rocks were still mud and the people left their footprints in the morass (Watson, 1983). The Milky Way (*molalatladi*), as per Beyer (1919), is the place where the *tladi* or lightning bird rests (*lala*). The lightning bird is said to cause lightning. A further version is that *Molalatladi* means 'the 'sleeping-place of the lightning', which is the Northern Sotho name for the rainbow (Lestrade, 1966). The Northern Sotho term for the Milky Way, according to Lestrade, is *tsela ya badimo* or 'the path of the ancestral spirits'.

Other stars

A large quadrilateral arrangement of stars which Beyer (1919) incorrectly refers to as a 'constellation' is known as *magakgala*, and consists of Rigel, Betelgeuse, Sirius and Procyon. No explanation was advanced by Beyer regarding the actual significance of this 'constellation'. It has been proposed that these four stars represent a time of day ('late dawn') when the other stars are no longer to be seen. The four stars, nevertheless, may still be visible at that particular stage, hence their importance (D. Ambrose). Ziervogel and Mokgokong (1975) describe *Magakgala* as an unidentified Northern Sotho 'constellation' which appears on cold nights. This star quadrilateral implies, perhaps, that observers in the old days may have used Orion's Belt as some type of central marker to discover the whereabouts of the four stars in question (at certain times of the night and in certain months). If so, then this constitutes a mental map of sorts, bearing in mind that the constellation of Orion sinks below the horizon around May and only reappears again in the night sky about October. Beyer (1919) also mentions *maselatheko*, specifically, Castor and Pollux (the Twins). D. Ambrose suggests that *Maselatheko* could be a reference to 'the food hunters'.

An interesting point raised by Eiselen (1928) was that the ordinary Northern Sotho man only knew the horn, the little horn, the Morning Star, the Pleiades, the Southern Cross and Orion's Belt. The ordinary person (probably the household head) made an effort to determine the position of the stars at the *beginning* of (a) spring, (b) winter, (c) the windy season, and (d) the rainy season. There were, however, those who made a special study of the heavens, and who knew the names of 'many stars' (Eiselen, 1928). Hoffmann (1932 cited by Chidester et al., 1997) suggested that Northern Sotho diviners were acquainted with the techniques of reading omens indicated by 'constellations', the cosmic patterns of comets and meteors, and lunar phases.

Wade (2009), citing oral evidence from informants at the Kara Heritage Institute, maintains that the Rain Queen of the Lovedu 'counted and named' certain stars (presumably for rainmaking purposes); and further, that monoliths at the Rain Queen's village of GaModjadji are used to sight (find) given stars. The stars are examined 'according to a very secret incantation' known only to the Rain Queen. The latter statement, if true, may refer to October. The stars could be those of the Southern Cross (as described above) and/or Orion. There is no mention of a specific celestial component to rainmaking in the standard work published by Krige and Krige (1980) on the Lovedu.

The following information is taken from Krige (1931) but is somewhat contradictory. One of the many signs of spring (and the spring rains) for the Lovedu was when Canopus or *Naka* was visible (Krige, 1931). The people advised the Rain Queen of this sighting so that she could prepare the rain-medicines. The first person to see *Naka* at daybreak was very lucky. He exclaimed: '*Naka* has come out, the boy has come out'. This star, in winter, indicated that it was time to hold the circumcision school for boys (*wodika*). Other important signs of the approach of spring were the Sun and the dawn appearance of the Pleiades or *Selemela*. The Pleiades were praised when seen with the words: '*Selemela*, I am up. Let *Kohamasiu* follow me'. The last-mentioned star (possibly Aldebaran which rises about 30 minutes after the Pleiades as per T.P. Cooper) was said to follow *Selemela*, and behind it came the *Mahakala* (Orion) stars. Hoeing-time was linked to *Selemela*.

Krige (1931) rather confusingly states that it was time to dig the dry lands when *Selemela* was 'overhead' at sunrise. The Pleiades reach their highest elevation in the early morning sky in South Africa around the middle of August (C. Turk). These stars can never be overhead in South Africa, since they are considerably to the north of the equator. Krige observed that there are two ways of planting crops according to the Lovedu. The first method is to wait for the spring rains, to scatter the seeds on the ground, and then to hoe. A second method, of more recent origin and possibly copied from the Shangaan (Tsonga) is to dig a hole first, to insert the seed, and to wait for rain. The second procedure, known as *ho kopela*, was used to plant mealies or pumpkins, but was not used for sowing corn (Krige, 1931).

The Southern Sotho (Basotho)

The Basotho term for the stars is *dinaledi* (singular = *naledi*) (Christeller, 1994). Ambrose (2009) referred to the planets as *liplanete*; *bana ba letsatsi* or *mafatše*, although such names seem to be more modern. The second of these names, *bana ba letsatsi* or 'children of the sun' particularly implies knowledge of the planets orbiting around the Sun. An earlier improvised term for the satellites (moons) of the planets was *litloholo tsa letsatsi* (Duby, 1910). Duby published a book (discussed below) in which this term was used. Ambrose (2009) noted that the first Basotho-owned Sesotho/English language newspaper, founded in 1904, was *Naledi ea Lesotho: The Star of Basutoland*.

Jupiter and Venus

Norton (1909) referred to Jupiter as *Tosa* meaning 'the shining knob by which the night and day are tugged round by some unseen power'. Another name for Jupiter, as per Norton, is *Matosabosiu* or 'the drawer up of night (or day)'. The explanation for the latter name, according to Norton, is that this star was mainly associated with the early morning, specifically dawn, by the Basotho. This statement is seemingly linked to the time of observation. The concept here is that Jupiter draws or pulls up the dawn. A further name for Jupiter given by Norton is *Moliana*, which is probably a diminutive derived from *lieha* ('to delay'), and which (allegedly) has reference to the retrograde motion and also the 'irregular planetary movement' of Jupiter. The name *Tosa* may likewise be linked to the 'apparent jerking leverage' of Jupiter. Norton is indulging in a degree of poetic licence in both instances, since Jupiter while subject to retrograde motion, does not exhibit a jerking or irregular planetary movement. It is possible to see the retrograde motion of Jupiter with the naked eye around opposition, i.e. for a period of approximately two months (C. Turk). Ambrose (2009), while accepting the name *Tosa* for Jupiter, also indicates that this term could originally have been used for Venus or even Mars. Ambrose (2000) suggests that *Tosa* (the name) may be linked to *tosa* (the verb) meaning 'to stretch out', which could refer to Jupiter being visible throughout the night in some months.

Norton (1909) described Venus (the Morning Star) as *Mphatlalatsane* which he states is associated with *phatlalla* ('to open', i.e. 'of the broadening dawn') and probably *phatla* or 'forehead'. *Sofalabehohe* [*Sofalabohoho*] is the Evening Star, which relates to 'crust scrapings' (Norton, 1909). Ambrose (2009) refers to the Evening Star as *Sefalabohoho* ('pot-scraper') which indicates that Venus is seen after supper when it is time to clean the crusts from the pots. An alternative name is *Kopalilalelo* or to 'ask for the evening meal'. The Morning Star, according to Ambrose (2009), is known as *Mphatlalatsane* from

phatlalla (‘to come into full view’); or *Khoqamasiu*. The second name means ‘appearing out of the nights’ and is derived from *khoqo* (ideophone = ‘to appear’) and *masiu* or ‘nights’. *Mphatlalatsane* has been used as the name of a newspaper on more than one occasion, where *phatlalatsa* means ‘to publish’; and is also a favourite name for buses, particularly at Qacha’s Nek in the south of Lesotho (Ambrose, 2009).

Canopus and Achernar

Norton (1909) mentions an unidentified Basotho star which he terms *Tsika le maropo* meaning ‘ridged and wrinkled’. Norton speculated whether this star could be Arcturus (the fourth brightest star in the night sky) or perhaps Saturn, assuming that the Basotho could see the rings of Saturn with the naked eye (an absolutely impossible feat). Von Sicard (1966) suggested that the name of the unknown star is of great antiquity and could actually refer to the Milky Way. Ambrose (2009), in turn, states that *Tšika-le-maropo* (his name for Canopus) could mean ‘that which goes parallel to the ridges’, although confirmation is required. The description in this instance relates to the apparent movement of the star at certain times of the year, with regard to the rugged topography of Lesotho (Ambrose, 2000). According to Lenake (1989) cited by Ambrose (2000) the celestial body in question is a ‘bright white star’ which could perhaps be Sirius, although Canopus seems to be more appropriate given the topographical description. T.P. Cooper, however, believes that the star is alpha Crucis, or more likely alpha Centauri, both of which appear to scrape along the horizon at their lowest elevation as seen in Lesotho.

Norton (1909) gives the name *Moranang* for Achernar. Ambrose (2009) describes Achernar as *Moranang* or *Naka* (‘the horn’), and states that Achernar rises just before dawn in April. Ambrose (2000) provides a second name for *Moranang*, namely: *Moranang oa Bale* (‘*Moranang* of the women initiates’) which probably refers to the fact that the month was an appropriate time for the ‘graduation ceremonies’ (the coming out ceremonies) after the initiation schools had ended.

The Pleiades, the Southern Cross and other bodies

The Pleiades or *Selemela* were of significance for the Southern Sotho. Ambrose (2000; 2009) refers to this star cluster as ‘the cultivator’ because the Pleiades appear in spring, rising on the north eastern horizon a little while after dark. It is then time for cultivation to commence. Some of the Batlokoa (Tlokoa) or Batlokwa (Tlokwa) believed that the harvest should be completed before the Pleiades *disappeared* from the skies about July, since grain harvested after that date ‘evaporates’ (Ashton, 1952). This was still the belief in the mid-1930s when Ashton undertook most of his fieldwork. There is a degree of confusion here, given that the Pleiades *appear* around this time. The harvest, clearly, should be finished by July. The Batlokoa referred to the Pleiades as *selemela se setsehali*, while Achernar was known as *selemela se setona* (the female and male *selemela* respectively). Ashton (1952) noted that such names suggest a further association with agriculture, but which has been forgotten. Paroz (1961) gives the following terms of interest: *lema* = ‘to plough, to cultivate, to grow’; *selemô* = ‘spring’ or ‘year’; *Selemêla se setshehadi* = the Pleiades, and *Selemêla se setona* = Achernar.

Ambrose (2000) observed that there is no recorded Sesotho name for the Southern Cross, although the word for a giraffe is *thuhlo* (plural = *dithuhlo*). Orion’s Belt is known as

Makolobe ('the wild pigs'), which is a variation of *likolobe* or 'bush pigs'. These animals were once common in Lesotho, but are now extinct. Norton (1909) confirms the description of Orion's Belt as the 'pigs', but does not give the Sesotho name. The animal is the Bushpig or Bosvark (*Potamochoerus larvatus*). It seems that the celestial analogy is indicative of the manner in which wild pigs trot along in a line. Ambrose (2009) refers to the Milky Way as *Molala* or 'the one who spends the night', which is an apt description. Another name for the Milky Way is *Tsela-ea-melimo* meaning 'the path of the gods', although there is some linguistic anomaly here since the word for ancestors is *balimo* and not *melimo* (Ambrose, 2009). Ambrose (2000) provides two further names for the Milky Way, namely: *Molala oa leholimo* and *Molala oa lehlabula*.

Ambrose (2009), in contrast to Norton (1909), gives the name *Moliana* or 'the hunter' for Capella; and *Torobela* for Sirius. Another meaning for *Torobela* is 'forerunner, vanguard, or brave warrior'. There does not appear to be an agreed vernacular name for Mercury, Mars or Saturn (Ambrose, 2009). Ambrose (2000) citing Lenake (1989) refers to the names of two grey spots in the sky as *Lehlabula* and *Mariha*: the usual meaning of which is 'summer' and 'winter' respectively. Ambrose (2000) states that these two bodies could be the Large Magellanic Cloud and the Small Magellanic Cloud, although any seasonal association in terms of their position in the sky is not that evident. Another celestial body mentioned by Ambrose (2000) is *Hlabula* or *Lehlabula* which could be the Coal Sack in the constellation of the Southern Cross. The Coal Sack is a cloud of opaque dust which hides many stars, creating the impression of a black hole in the Milky Way (Turk, 2001).

Warner (1996) citing Hoffmann (1925) stated that the Basotho recognized Mercury only in the morning sky, which then signified imminent sunrise or the time to milk the cows. Mercury in this scenario precedes or follows the Sun by a maximum of 2 hours and 15 minutes, and is accordingly visible in the morning or evening twilight (i.e. in the east and west respectively) while low down near the horizon (Rudaux and de Vaucouleurs, 1967; Mack, 1996). Mercury moves perceptively from one night to another when viewed against the background stars, and alternates between the morning and evening sky up to seven times a year. Not all of these elongations or appearances are optimum for sighting Mercury. The most favourable elongations of Mercury are those observed in the southern hemisphere. The best time to see Mercury in the southern hemisphere is during March–April (in the early morning) and in September–October (in the early evening) (Rudaux and de Vaucouleurs, 1967; Mack, 1996; Jones, 2007; FitzGerald, 2005).

There is a strong possibility that Mercury as a morning and evening object (like Venus) was not generally perceived by the Basotho to be one and the same celestial body, bearing in mind the difficulties of sighting Mercury. What this suggests is that one or more peoples in southern Africa may indeed have observed Mercury in the evening sky, although the vernacular name of Mercury in its evening guise was either not recorded in print, was confused with another heavenly body, or cannot now be positively identified. See **The Khoikhoi** below.

There is relatively little published information on current perceptions of the heavens by young Africans in South Africa. One instance is that of Govender (2009) who investigated some celestial beliefs in an admittedly small sample of eight postgraduate students from

Lesotho (specialising in primary school education). The students all grew up in the rural districts of Lesotho, and were registered for natural science courses including aspects of astronomy and indigenous knowledge systems at a South African university. Interviews with the students concerned topics such as how the students perceived the Sun, the Moon and the stars as well as the seasons. The students stated that the Moon was used as a signal for religious observances, festivals and agricultural activities. Prayer is undertaken, on occasion, at the time of New Moon. Young children of about six months old are shown to the Moon as one means of signifying age, and also to introduce the child to the dark, nature and natural objects. The Sun travels from east to west. People in mourning (wearing mourning clothing) are required to face east (the rising Sun). The dead are buried with their legs towards the east as a mark of respect for the deceased. The rising and setting Sun as well as shadows on the mountains, not only indicate direction and the time of day, but also the seasons (which in turn are associated with various cultural and economic events). Daughters-in-law living with their husband's family must rise before dawn to begin their daily chores. The Morning Star (Venus) and possibly Canopus function as celestial clocks in this regard. 'Falling stars' (**refer to Chapter 6**) are an indication of bad luck.

It seems that the earliest textbook on astronomy, in a South African indigenous language, was published in 1910 by Samuel Duby, a missionary at Morija in Lesotho (Snedegar, 2007). The book was entitled: *Tsa Leholimo le tsa Lefatše* (= About the Sky and the Earth) (Ambrose, 2009). The text prior to appearing in book form was serialized in *Leselinyana la Lesotho*, a Sesotho language newspaper. Duby derived his primary information from standard western textbooks. The book itself consisted of 11 chapters and covered a variety of topics. These were: the Sun (including sunspots or *matheba a letsatsi*); the Moon; the Earth; certain stars; eight planets; the satellites of the planets; asteroids; solar and lunar eclipses; comets and meteors, and the western calendar including the calculation of important Christian dates such as Easter. The book formed part of a series of advanced readers, possibly rather ambitiously designed for higher primary schools, but certainly used at the Morija Training College (Ambrose, 2009). The book remains the only astronomical text to have been written in Sesotho to-date (Ambrose, 2000).

Ambrose (2009) makes the interesting point that cattle herders are an important source of information on the vernacular names of stars. He was referring to the Basotho, although his observation may well be of significance in other parts of Africa. Herders are out in all weathers, and have little entertainment excluding the state of their livestock and the physical environment. Herders are therefore excellent observers of natural phenomena. This comment raises a very pertinent issue, namely: exactly who were the informants in southern Africa generally in previous times? Were they mainly elderly men (who may not always remember past events or traditional knowledge correctly); or elderly women (ditto), or younger people whose duties required them to be familiar with the heavens? It is clear that older people had social seniority, and were deferred to by the younger generations. The views and opinions of the elderly accordingly prevailed.

The Tswana

The Tswana word for a star is *naledi* (plural = *dinaledi*) (Brown, 1968). Some 20 celestial objects were known to the Tswana who also differentiated between 'moving' and 'fixed'

stars (Clegg, 1986). Clegg maintains that the stars were regarded by the Tswana as the spirits of the dead, a belief confirmed by Breutz (1969). The brightness (apparent magnitude) of the stars was linked to the importance of the person while living, or inversely, to the period of time that he or she had been dead (Clegg, 1986). According to Breutz (1969), the stars are inhabited by people who refused to come down to Earth. Some Tswana thought that the stars are the spirits of long dead people who are no longer ancestral spirits. This concept is related to the notion that the sky is solid and that the stars are souls of great antiquity (Breutz, 1969). The stars, as elsewhere in South Africa, were primarily of importance in terms of the agricultural cycle as well as daily life. One exception concerns way-finding (see below). A feature of the Tswana skies, as per Clegg, is the number of stars which cannot be positively identified. Mars, Jupiter and Saturn were evidently not of significance for the Tswana. It should be borne in mind that the data recorded by Clegg (1986) were distilled from over 100 interviews conducted by students at the University of Botswana in the period 1982–1985. The students gathered information from their home villages across Botswana. The information is thus more modern than comparable data discussed in this book. There is some doubt regarding the Setswana spelling of certain star names given in Clegg (1986). Readers may wish to consult Matumo (1993) as well as Snyman et al. (1990) in this respect.

The Southern Cross, the Pleiades, Canopus, Orion, Venus, the Magellanic Clouds and the Milky Way

The Tswana name for the Southern Cross is *Dithutlwa* (Clegg, 1986). Reference is made here to the giraffe, with the two brightest stars of the Cross (alpha and beta Crucis) being male giraffe, and the two other stars (gamma and delta Crucis) as female giraffe. The False Cross is known as *Thutlwa e namagadi* or the 'Female Giraffe' (Ambrose, 2000 citing Matumo, 1993). The False Cross, an asterism, is similar in shape and orientation to the Southern Cross, although somewhat larger and dimmer (Turk, 2001). The longer arm of the False Cross points towards the Large Magellanic Cloud. It was time to start ploughing when the Pleiades (*Selemela*) were sighted overhead in the evenings (Clegg, 1986). A slightly different and more accurate version is that the Pleiades or *Selemêla* (note alternative spelling), when seen high in the sky, denoted the beginning of the ploughing season (*lema* = 'to plough or cultivate') (D.T. Cole). *Naka* or Canopus when observed late at night in winter meant that the winds would soon start to blow, resulting in the deciduous trees losing their leaves (Clegg, 1986). This was also the time to mate the sheep by putting the ram amongst the ewes. Madumo (1993) refers to *naka* as one of the bright stars in the early morning, and which is seen before dawn towards the end of May. The sighting of this star is a sign of the onset of the coldest time of the year, and also indicates that it is time for the goats to breed.

Orion is known as *Dintsa le Dikolobe* and is a reference to the three dogs (Orion's Belt) which are perceived to be chasing the three pigs (Orion's Sword). *Naledi ya masa* ('the time to rise') is Venus as the Morning Star, while *Kopadilelo* ('asking for supper') is the Evening Star. A Tswana belief is that there will be a drought if *Kopadilelo* cannot be seen at ploughing time; or a good harvest if this heavenly object is indeed sighted at this stage. This supposition is seemingly linked to the timing of the rains and thus the harvest when Venus is coincidently visible. The Large Magellanic Cloud is called *Kgoro* and the

Small Magellanic Cloud, *Tlala*. The Tswana thought that drought would be forthcoming if *Tlala* was 'clearer' or 'on top'. A time of agricultural plenty (good rains) was imminent if the reverse situation was applicable. A contrary belief mentioned by Clegg (1986) is that drought is indicated when *Tlala* looks 'faint' or is more difficult to see. The inference is that dust in the atmosphere is more pronounced during droughts and obscures the sky. A similar viewpoint was expressed by Medupe (2005a) who stated that the two bodies signified *khoro* ('plenty' i.e. of food) or *tlala* ('famine or drought') respectively to the Tswana in the past. The reasoning is that the Small Magellanic Cloud is less visible than the Large Magellanic Cloud in dusty conditions, and was consequently associated with drought (Medupe, 2005a). It is a fact that the Large Magellanic Cloud is lower in the sky than the Small Magellanic Cloud during the months of September–January, i.e. encompassing most of the rainy season (Fairall, 2006). *Molalatladi* or *Molalakoko*, according to Clegg, is the Tswana name for the Milky Way. Clegg (1986) also referred to the Kalanga, a minority group in Botswana, for whom Venus is *Megalilangote*. The name is derived from the stick used to stir porridge. The Kalanga, who speak a Shona dialect, are mainly concentrated in eastern Botswana.

Unknown or unidentified Tswana stars

One unknown star is *Serogabolo*, which is possibly Betelgeuse (Clegg, 1986). This star implies rain when seen vertically above in the evening. Snyman et al. (1990) refer to *[se] rogabalopo* as a celestial phenomenon which is believed to 'presage rain'. Another star is *Magakgala* which Clegg (1986) tentatively identified as either Antares or Spica. Corn should be harvested when this body is observed in the early evening. Matumo (1993), however, suggests that *magakgala* are the final stars seen as dawn breaks. Matumo gives the phrase *mahube a magakgala* meaning the 'the very first rays of daylight', which is presumably dawn just prior to daybreak. The concept of *magakgala* is explained by Brown (1968) as 'stars coming out at dawn'.

Kgogamasigo is said to be visible throughout the night in summer, and 'pulls the night across' (Clegg, 1986). The name is derived from that part of the plough to which the ox is attached. Reference to ploughs, in this instance, implies that the name of the star is of fairly recent origin (i.e. since the arrival of the first Christian missionaries). The star rises at about 04:00 in November, when it is time to feed and water the oxen in the ploughing season. This is done to ensure that maximum use is made of the hours of daylight for ploughing purposes. Clegg (1986) suggests that this star is most probably Arcturus, or perhaps Sirius, or one of the stars in the constellation of Orion. T.P. Cooper rejects the last-mentioned option and believes that Spica could be the star under discussion. Readers, nevertheless, should note the similarity in spelling for the Northern Sotho name of Jupiter as put forward by Beyer (1919). Ambrose (2000) citing Matumo (1993) indicates that *kgôga masigo* (note different spelling) is said to be the name for Arcturus, although the etymology of the word according to Ambrose makes this statement unlikely. Brown (1968) gives the name of Arcturus as *Kgòga masigo*.

Senakane, which is visible in the evenings in May, is thought to be Antares (Clegg, 1986). We have already seen that this star was identified as Achernar by the Northern Sotho, as per Beyer (1919). *Ntshune* is believed by Clegg to be the Tswana name of Fomalhaut.

This star ('Kiss me'), which appears on winter mornings, was said to indicate the time for lovers to part before their parents discovered them. [The Setswana name of the star, according to P.S. Groenewald, is derived from the Afrikaans *soen my* or 'kiss me'. Snyman et al. (1990) support this viewpoint.] Two other unknown Tswana stars are *Makgoro*; as well as *Makgala* which is apparent in the evenings in July. Clegg speculated that the latter star might be Regulus. *Manake*, in turn, is thought by Clegg to be alpha Centauri. There is some support for this belief, since Ambrose (2000) citing Matumo (1993) states that *Manake* or the 'horns' is evidently the Tswana name for alpha Centauri and beta Centauri. Also unidentified is *Kgalapane* (Clegg, 1986). *Sefapano* is a bright star seen in the evenings in spring, and which lies in a southerly direction. This star was once used as a way-finding mechanism with the traveller keeping *Sefapano* on his left and the Pleiades (*Selemela*) on his right, in order to travel west. A final unknown Tswana star is *Tshobego*, which Clegg (1986) described as a southern star seen in winter. Plants die when this star is visible.

Some Tswana still use traditional indicators to predict seasonal rainfall. This fact was confirmed by Mogotsi, Moroka, Sitang and Chibua (2011) who studied two sub-districts in Botswana. One sub-district (Bobonong) is in eastern Botswana, while the other sub-district (Kgalagadi North) is in south western Botswana, and is closer to the Kgalagadi (Kalahari). Both areas are mainly inhabited by agro-pastoralists, although conditions in Kgalagadi North are somewhat marginal with some households refraining from all cropping agriculture. The two areas are characterized by extreme temperatures in summer and winter and high evapotranspiration rates, as well as a variable and erratic rainfall, especially in Kgalagadi North. The most widely used traditional indicators of forthcoming rainfall trends in both areas are the stars, the Sun, the Moon, changes in vegetation, and insect, bird, wild animal (elephant) and livestock behaviour patterns. Also of relevance are meteorological parameters such as clouds, winds, thunderstorms, fog or mist, rainbows and rainmaking ceremonies (the latter no longer undertaken). Multiple traditional indicators are used at the same time for improved rainfall prediction. The use of traditional indicators is more pronounced amongst the older people, based on their life experience. Younger people, in contrast, are much less aware of these indicators.

The stars (as one broad category of indicator) actually refer to a 'big star' which is indicative of good rains when visible. [It is not impossible that the star is Venus, although this is not stated.] Approximately 22% of respondents in Bobonong and 11% of respondents in Kgalagadi North regard this star as a reliable sign of rain. The Sun, in the form of high afternoon temperatures, is perceived to be a reliable indicator of rain by 2% of residents in Kgalagadi North (none in Bobonong). A larger than usual halo around the Moon is viewed as a sign of good rains by 4% of those living in Bobonong (none in Kgalagadi North). The most reliable of the traditional indicators for the Bobonong residents are the stars, although the stars and clouds are jointly ranked third in importance in Kgalagadi North, after winds and changes in vegetation. Mogotsi et al. (2011) observed that a belief in traditional indicators in both areas is declining. One of the primary reasons for this state of affairs is the alleged increase in the variability of rainfall and droughts in Botswana in more recent years. Only 36% of households in Bobonong and 47% of households in Kgalagadi North actually use traditional indicators of rain to make 'serious' farm

management decisions such as clearing new fields, determining planting dates and selling some cattle. Households in the two areas who still employ traditional rainfall indicators currently combine these procedures with meteorologically-based forecasts. Most (but not all) households in the two study areas, nevertheless, prefer the latter method. Those who favour traditional indicators of rain forecasting do so because of a perceived lack of reliability of meteorologically-based forecasts as well as the simplicity and familiarity of traditional methods. Modern forecasting, generally, is seen to be more reliable and precise in Bobonong and Kgalagadi North. In some cases, however, there is a lack of an alternative, since the old ways of rainfall prediction have died out (Mogotsi et al., 2011).

A second study of the Tswana, this time with regard to traditional methods of drought forecasting and mitigation (especially by elderly people), was undertaken by Roos, Chigeza and van Niekerk (2010). The study area consisted of two separate settlements in North-West Province, South Africa. These were Ganyesa, a peri-urban locality considerably to the south west of Mafikeng; and Tosca, a remote rural area near the Botswana border and considerably to the west of Mafikeng. Subsistence agriculture on small plots predominates at Ganyesa, while employment opportunities at Tosca primarily consist of unskilled work on nearby commercial farms. Both localities experienced periods of severe drought in the years 2002–2005. Several traditional indicators are used to forecast dry spells and droughts in the study area. Astronomical indicators in particular involve (a) the shape (phase) and position of the Moon in the sky, and (b) the presence of certain stars including the Pleiades (Roos et al., 2010). The phases and position of the Moon are likewise of relevance for small-scale farmers in the Molopo and Ditsobotla districts of North-West Province, closer to Mafikeng (Vogel, 2000). Lunar information and other traditional indicators as well as scientific forecasts are used to assess conditions for the planting of crops in the forthcoming summer season.

Snedegar (2007) provided some examples of early 20th century Tswana literature which addressed celestial topics. The well-known author and political activist, Solomon Tshekisho Plaatje (1876–1932) wrote about celestial matters in two Setswana/English language newspapers which he edited. These were: *Tsala ea Becoana* (= Friend of the Bechuana [People]) and *Tsala ea Batho* (= Friend of the People). Of particular interest was the return of Comet 1P/1909 R1 (Halley) in 1910 (**see Chapter 6**). This comet had a symbolic representation in Plaatje's novel *Mhudi*, which was first published in 1930.

Sotho-Tswana stars revisited

Breutz (1969), in commenting on Sotho-Tswana stars, made a number of interesting points. Readers should bear in mind that the spelling of words or terms used by Breutz may differ from the spelling already given for the Northern Sotho, the Southern Sotho and the Tswana. Some care has been taken to advise readers of the details of informants consulted by Breutz, since this information may provide clues to dialects.

Breutz (1969) observed that there was some confusion regarding the vernacular names for Mars and Jupiter [to which Venus can be added]. Mars seemed to be described in the literature as 'the one that draws up the nights' or *kgogamašego* (Northern Sotho and Tswana); and *matosa bosiho* and also *kgora-disokwanta* in Southern Sotho. Breutz referred to Norton (1909), Beyer (1919) and one of his (Breutz's) informants, U.N.S. Ragoboya

of the Mamabolo or Mmamabolo, in support of Jupiter drawing up the nights. The full Southern Sotho name for Jupiter (*tosa*) is *matosa bosiho* as per Breutz. Hoffmann (1931; 1932 cited by Breutz) gives the names *molotšaana* and *sekhopeetšaana* (the 'little beggar') for Jupiter in respect of the Mamabolo, a Northern Sotho people of Zimbabwean origin. Note that the original spelling given in Hoffmann (1932) is *Molotšana* and *Sekgopetšana* respectively. The term 'little beggar' refers to the children who claim that the star eats their evening food. Hoffmann (1932) indicated that when the evening star in question disappears on the northern side (*letsoeta*) it kills on the northern side, and that when the star disappears on the southern side (*lehlako*) it kills on the southern side. The star brings ill-fortune in the form of death, disease or famine. One interpretation offered here is that both Jupiter and Venus (as evening stars) set in winter to the north of west, and to the south of west during summer (like the Sun).

Breutz noted that Venus as the Morning Star and as the Evening Star (according to the old Sotho-Tswana beliefs) were two different bodies with separate functions, although all of Breutz's informants were aware that it was indeed the same star. What this statement confirms is that there has been an erosion of traditional beliefs over time: a not unexpected conclusion. The Morning Star is called *naledi ya masa* or *mesô*, although the names *mahlapholane* and *masapholane* are also evident in Northern Sotho (J. Sono of the Northern Sotho with a Tswana tradition: the Gananwa, cited by Breutz, 1969). Other names are *mphatlalatsane* (from *phatlalla* or 'to spread out') and *mphatlhalele*. The Mamabolo terms for Venus were *mahlapolane* when visible in the east before dawn in winter, and *sekgopetšana* when seen in the west in autumn. It was likewise said that the Morning Star divides summer from winter, and controls the rain. This star promises rain and a good harvest when situated in a given 'constellation'. The star is associated with the initiation of boys in winter. Venus is believed to have an influence on fertility, since girls as part of their initiation rites have to bathe in cold water in the early morning when the star rises. Breutz (1969) indicated that this custom may have been derived from the Rotse fertility myth of the Moon. The Rotse, resident to the north, believed that the Morning Star (*masasi*) was the wife of the first man (the Moon or *mwedzi*). Breutz stated that some Northern Sotho had similar beliefs.

Venus as the Evening Star is known as *kgopa-dilalêlo*, or in an abbreviated form as *dilallo* in all Sotho-Tswana dialects (Breutz, 1969). The Mamabolo knew the star as *naledi ya manthapama*, while for the Gananwa it was *motlathokwane* or *kgopedi*, or alternatively *kgopetšana* (in the diminutive). The name usually indicates the end of the day, and that the women of the household should have supper ready. The name also signifies that dinner time is over when Venus is sighted, and that those who arrive late will only be able to 'scratch the pots'. In the latter case the star is named *sefala bogogo* (by the Northern Sotho); and *sefala behoho* [*sefala bohoho*] or *modiana* (from *dieha* or to 'delay') by the Southern Sotho. Breutz (1969) maintains that Venus as the Evening Star is perceived to be the wife of the Moon in Botswana. The Lemba had the same belief, although in this case Venus as the wife of the Moon is apparently the Morning Star or *nehanda* (Von Sicard, 1966). Breutz (1969) described a Kikuyu rite where a clod (of earth), which had been spat upon, was thrown at Venus. The belief in this instance was that Venus is a manifestation

of a god (*Engai*). Breutz claimed that this sacred rite was also performed in South Africa, although he did not provide any details.

Breutz (1969) also discussed the Pleiades. According to one of his informants (J. Sono), this open star cluster consists of 'seven clear stars' in winter, although there seems to be one star in summer. Some of the older people maintain that it only 'looks' as if there is more than one star in winter. Breutz confirmed that the Sotho-Tswana name for the Pleiades is *selemela*. He noted that the word *selemô* is the Sotho-Tswana term for spring and summer, which is derived from *go lema* or 'to till the soil'. The Tlhaping, the southernmost Tswana as per Breutz, do not have the word *selemô* in their vocabulary due to the more arid conditions thereabouts and hence the general unsuitability of cropping agriculture. The Tlhaping instead speak of *dikgakolôgô* or 'the change of climate' (i.e. the weather). One variant of the theme, provided by A.J. Mahloana of the Lovedu or Lobedu (a Northern Sotho informant), was that *selemela* refers to all three Sotho-Tswana seasons, specifically: spring, summer and winter. Another Breutz informant (H. Mohlabe of the Northern Sotho) recorded a praise song for the Pleiades. The song, being translated, is as follows:

Selemela I come from the Kwena-country,
I come with the colours of Phuti (personal name or duiker?) of Mafala (person?),
from the crusher of iron.
Selemela is rising with vigour, it pulls the night up strong, let us go.

The Kwena are a Northern Sotho people. The Common Duiker or Gewone Duiker is a species of small antelope which is widespread throughout southern Africa. The scientific name of this animal is *Sylvicapra grimmia* (Smithers, 1986).

Breutz (1969) next discussed the stars of Orion's Belt, which he states are known in all Sotho-Tswana dialects as *magakgala*. Other names are *makolobe* or *dikolobe*, although the 'constellation' bearing this name appears to consist of fewer stars than that referred to as *magakgala*. *Kolobe* is a pig, with the name being descriptive of stars in a row, like pigs following each other. It is said that *magakgala* destroys all the green plants in nature after the Northern Sotho have threshed their corn in June. Famine is indicated when the 'largest star of the constellation' is seen more clearly than usual, although a year of plenty will be evident when the smallest star is seen more clearly (S. Nawa of the Tswana: the Mafatlha-Ndebele, a Breutz informant). This statement should perhaps be interpreted, not with regard to size, but rather apparent magnitude (brightness). A sign that it is winter is when 'the constellation' rises to a certain point at night (Mogorosi, another Breutz informant, no initials given). Summer has begun when the constellation rises early at night. A different name for the same constellation is *tlala le kgora* since it indicates famine or a condition of plenty.

Canopus or *naka* (the 'horn') announces the beginning of winter (Breutz, 1969). The star is said to 'break' the year and warns people to prepare their blankets. The star also 'burns up anything green in nature', which Breutz states is a reference to cold winds in May. Further names for Canopus are *nake* and *mmanake*. Breutz citing Beyer (1919) refers to the Large Magellanic Cloud and the Small Magellanic Cloud, namely: *setlhako sa naka* and *setlhako sa senakane* meaning the 'the sandal of *naka*' and the 'the sandal

of the small horn' respectively. Breutz speculated whether the concepts of a horn-shape and sandals for the two celestial clouds were based on San beliefs. Von Sicard (1966), as an alternative, suggested that the Sotho regarded the Magellanic Clouds as the wives or harem of Canopus and Achernar. Breutz likewise citing Beyer (1919) describes Achernar as *senakane*, the diminutive of *naka*. Other Sotho-Tswana, as per Breutz, also know about *senakane* or *dinakane*. N.J. van Warmelo, cited as a personal communication by Marshall (1975), referred to the Northern Sotho name for Canopus as *Naka*, which he (van Warmelo) maintained is related to *lenaka* or the 'horn of beast'. Van Warmelo speculated whether the name of Canopus could perhaps be linked to the fact that a beast's horn is at the front of the animal (the beginning as it were), which in turn may refer to the first sighting of Canopus as the beginning of the new year for the Northern Sotho.

All Sotho-Tswana view the Southern Cross as the giraffe (singular = *thutlwa* and plural = *dithutlwa*). The Southern Cross consists of male and female stars. Breutz (1969) cited three informants for the information on the Southern Cross, specifically: T. Masiangwato, S. Nawa and U.N.S. Ragoboya. Further names for the Southern Cross are *morotlwa* and *sefapanô* (data from J. Malatši of the Northern Sotho: the Phalaborwa and J. Sono respectively), although the last-mentioned name is probably due to the influence of the white people. The two female stars lead the male stars (U.N.S. Ragoboya). During the month of April the female stars vanish leaving the males alone in the sky. *Naka* is 'pulled up' by the female stars, nevertheless, causing Canopus to appear. The stars of the Southern Cross are said to 'move with the year' and along the Milky Way. It is likewise said that the stars of *dipabe* or the 'yellow animals' in the south (possibly the Southern Cross) in winter 'cross each other and the one comes to settle where the other was before' (Mogorosi). Somewhat vague is the statement by Mogorosi that 'the bigger star' is an indication of the winter season, while 'the other' is a sign of the summer season.

The Milky Way is called *molala-tladi* and occasionally also *molawagodimo* (Breutz, 1969). A number of sources consulted by Breutz stated that the Milky Way indicates the constant movement of time, and that 'it turns the sun towards the east'. The word *molala-tladi* also means 'a rainbow'. *Tladi* is the thunder bird (more accurately described as the lightning bird). The rainbow was perceived to be the long neck of *tladi* which reaches up into the sky. One particular informant (J. Malatši) suggested that *molalatladi* (a) supports the sky thereby preventing the sky from falling down to Earth, and (b) that it controls day and night. The concept expressed in (a) reinforces the notion that the sky is solid.

Breutz (1969) mentions two unknown stars. These are *Phukwio-futsa-difala*, which is described as a group of stars which appear in July. The second star is called *Diphalane-Matsantsabana* or 'mirage' because the star looks like 'water on the ground'. The second body appears in October, with the name of the star also being the name of this month. It is the beginning of summer (*letlhabula*) when the impala drop their young and the '*mokgofa* and *mookane* (with thorn) blossom'. The first tree, allowing for a slight variation in spelling, is the Common Wild Pear or Gewone Drolpeer (*Dombeya rotundifolia = D. densiflora; D. multiflora*) Northern Sotho = *mokgoba*; Tswana = *motubane* (Palmer, 1981; Pooley, 1993; Internet confirmation of Breutz's Tswana spelling). The latter tree, again with a slightly different spelling, is evidently the Sweet Thorn or Soetdoring (*Acacia karroo*)

Southern Sotho = *leoka*; *mooka*, Northern Sotho = *mooka*; *mookana* and Tswana = *mooka*; *moshaoka* (de Winter, de Winter and Killick, 1966). Breutz (1969) was unable to link the two celestial names to any specific stars. Breutz's informant for the two stars was P.G. Kgaswe (of the Tswana: the Batlhako or Tlhako). The description of the October star is suggestive of a large and bright star which is viewed through a lower atmosphere with some degree of humidity, resulting in a slightly distorted or smudged celestial image.

Breutz (1954) provided additional information on the Tswana resident in the Ventersdorp area in the present-day North-West Province. The Tswana thereabouts referred to the Morning Star (presumably Venus) as *Naledi-a-matsaba*. The Evening Star was known as *Kgôra disokwana* and also *Kopa-dilallo*. The women of the household were required to ensure that the evening meal had already been prepared once the Evening Star appeared in the sky. Orion's Belt was referred to as *Dikolobê*, while Sirius was *Naka* (Breutz, 1954). A study by Breutz (1955) of the Tswana in the Mafeking (now Mafikeng) district in North-West Province revealed that five stars were remembered in that area. These were: *Mmanake* (Venus); *Molaogodimo* (Venus as the Morning Star); *Selemela* or the Pleiades; *Kopadilalelo* (Mars), and the 'constellation' of *Dikolobê* (Orion). Breutz (1955) stated that the names of the stars had been forgotten once initiation ceremonies had been abandoned in the district, although some old people were able to provide him with the given star names.

Another study undertaken by Breutz (1959), this time of the Tswana in the Vryburg district (North-West Province), revealed a similar trend with Breutz noting that the heavens were no longer much observed, and that only the names of a few stars were still remembered. These stars were *manake* (morning star); *sekopadilalêlô* (evening star); an unidentified star (*kogamasigo*) which is seen the whole night long when going from east to west; *mariga* (a large 'cluster' of small stars observed in winter), and *lelemo* [*selelemo*] the same stars when seen in summer. Other stars were *molago wa godimo* (the Milky Way) and *selemêla* (not identified but clearly the Pleiades) which Breutz described as nine stars in one place which indicates winter. A further star is *sekopa morokotšo*: a morning star 'which can be seen all the day until sunset'. The last-mentioned star, when near the Moon, is an indication that winter is 'turning to spring'. See **The San** (the !Kung and the G/wi) below.

It is clear from the above discussion that there is a degree of confusion regarding the names and functions of several stars. It is probable that the data were recorded too late in history, after the primary reason for observation had passed into oblivion (or nearly so). The only feasible procedure (in the absence of independent confirmation) is to consider the weight of evidence for a particular stellar name and function, bearing dialects in mind.

The Tsonga

The Tsonga word for the stars and planets is the same (*tinyeleti*). The singular term is *nyeleti* (Publications Committee, Swiss Mission in South Africa, 1988). It was once taboo to try to count the stars, which was a torment for the soul (Junod, 1927). There is evidently very little information available on Tsonga stars.

Venus, the Pleiades and the Milky Way

The Morning Star is known as *Mahlahle* while the Evening Star is *Ngongomela*, *Gongomela* (note similarity in spelling), or *gumbaxilalelo* (Publications Committee, Swiss Mission in South Africa, 1988). Of interest is that *gongomela* also means to 'wait intently for something' (Publications Committee, Swiss Mission in South Africa, 1988). It is not absolutely impossible that one of the awaited events is the evening meal. Some support for this viewpoint is given by Cuénod (1967) who defines *gongomela* as meaning 'to wait intently for something *as when invited to a feast*'. Likewise of possible celestial significance is the Tsonga word for 'about three o'clock in the morning', namely: *mahlambandlopfu* (Publications Committee, Swiss Mission in South Africa, 1988). The latter word may perhaps be linked to, or associated with the name and rising of the Morning Star or another star.

Junod (1927) gives three terms for the Evening Star. These are: *Gumbashilalelo* ('the one which steals the evening meal' since it appears at supper time); *Nkata wa hweti* ('the moon's husband', so-called because both are often seen close together), and *khwekhweti* ('the brilliant star'). Junod referred to the feminine suffix *eti* which suggests that the Evening Star was personified in previous times. The Morning Star is known as *Ngongomela* or *Khwezu*. The Morning Star was of primary importance for the Tsonga in the past (Junod, 1927). The month during which the Morning Star appears in winter was the time for the opening of the circumcision school. This rite was held every four or five years. *Ngongomela* rises in the east, and is the herald of the day. Venus precedes the Sun, and in so doing, leads the boys to their new life (from darkness to light). The initiates rose in the early morning in the chief's village and proceeded to the place of initiation. All this was done by the light of Venus, which conducted the initiates to manhood. Venus, in time of war, gave the Tsonga warriors the signal to attack their enemies while it was still dark. Dawn was then at hand enabling the warriors to finish their task in daylight. Tsonga travellers, likewise, began their journey by the light of Venus in the full knowledge that dawn was not far off. The Pleiades were referred to as *shirimelo* or 'the one which announces the tilling season' (Junod, 1927). The terms for the ploughing season and the cultivation season are *xirimo* and *nhlakulo* respectively. The Tsonga name for the Milky Way is *sokoranwambe* or *xirimela* (Publications Committee, Swiss Mission in South Africa, 1988).

An early Tsonga vernacular newspaper, started by the Swiss Mission in South Africa in 1921 and printed in Cleveland, was *Nyeleti ya Mišo* (= The Morning Star) (Bill, 1984). The newspaper originally carried some articles in Tsonga and some in Ronga. The name of the paper was changed in 1949 to *Mahlahle* (Bill, 1984). This newspaper was briefly mentioned by Junod and Jaques (1936) as one source of Tsonga proverbs, many of which later appeared in their book: *Vutlhari bya vaTonga (Matšhangana), or, The Wisdom of the Tonga-Shangaan People*. The proverbs were collected by means of a competition in the newspaper.

The Venda

The Venda once believed that the stars or *maledzi* (singular = *naledzi*: Van Warmelo, 1989) were suspended from the sky (*makholi*), and were invisible during the day because of the brightness of the Sun (Stayt, 1931). A shooting star, in turn, was thought to have become

detached from the string connecting it to the sky. It was regarded as unlucky to count the stars. A child was forbidden to do so, given that he would wet the hut in the night if he disobeyed this parental command. It is apparent in the discussion below that Stayt (1931) evidently confused Venus, Sirius and Canopus.

Venus and Sirius

The Venda had no explanation for the movement of the planets such as Venus or *khoho motsho* ('pulling out the dawn'). Venus appears as a morning star in winter, and is also seen high in the sky in the evening. Some Venda were aware that this star was not seen on a regular basis. Sirius, according to Stayt (1931), was the most watched star by the Venda. Sirius, as an evening star, was known as *khumbela tshilalelo* or 'asking for supper' as per Stayt. [It is almost certainly Venus, in both cases, which is applicable here. Van Warmelo (1989) describes *gumbila* as the Evening Star, and *khumbela-tshilalelo* as Venus in the form of the Evening Star. Gottschling (1905), interestingly, states that none of his informants 'noticed' Sirius.] Sirius (Canopus?), rising early in the morning in winter (as a morning star), was known as *nanga* or the 'horn' (Stayt, 1931). The first appearance of *nanga* every year was the signal for the harvest to begin. The first man to see *nanga* climbed a high hill and blew the *phala-fhala* (a sable antelope ceremonial horn) to spread the news. The chief rewarded the man for his diligence by presenting him with a cow. Young boys, later in the day, drove all the chief's cattle for half a day's journey from the village, and left the cattle unattended at that site. The first animal to return to the village was greeted by trilling women. There was much rejoicing at the village of the chief (Stayt, 1931). Gottschling (1905) referred to Canopus as *Nanga* or the 'horn' and indicated that this star was 'held responsible' for *mahada* or 'white frost', when first sighted in the sky.

Van Warmelo (1989) indicates that *tshilimo* is the name for the hoeing season, and is also the name for Sirius. Van Warmelo differs from Stayt (1931) in other ways. Van Warmelo refers to *khoha-mutsho* (different spelling) as a certain star which is said to precede Venus in the morning, and *masase* as 'the morning star'. Another divergence of opinion with Stayt (1931) is that of *tshilalelo* meaning 'supper' or 'evening star'. One of the meanings of *nanga* is 'the star Canopus, only when briefly seen on the SE horizon just before sunrise around 20 May'. Another meaning of the latter term is 'flute, especially of bamboo, but also of reed, of horn or bone' (van Warmelo, 1989).

Achernar and Aldebaran

Achernar or *tshinananga* ('little horn'), when visible as a morning star, was a sign that the cold weather was about to set in (Stayt, 1931). Van Warmelo (1989) explains matters thus: *tshinanga* means 'small horn', although *tshinangana* means Achernar when seen just before sunrise. This star was not well known by the Venda, and the name was possibly adopted from Sotho-speakers (van Warmelo, 1989). Aldebaran or *musasi* (from *sasi* or 'door') was not very popular with Venda women (Stayt, 1931). Aldebaran was the first star that the women saw when opening the door in the small hours of the morning in winter. The star signified that the domestic chores had begun, and that it was time to start stamping grain for the daily meals.

The Southern Cross, the Pleiades, Orion's Belt and the Milky Way

The specific position in the sky of *tuda* or the 'giraffe' (consisting of the two brightest stars of the Southern Cross and the two Pointers) as well as the Pleiades (*tshilimela*) and the *tshimedzi* Moon, indicated the beginning of the new year and the start of the agricultural (ploughing) season for the Venda (Stayt, 1931). The two brightest stars of the Southern Cross were termed *nsadzi* (female), while the two Pointers were termed *ndona* (male). The time for ploughing was when *nsadzi* was not visible (just below the horizon), and *ndona* was just apparent above the horizon soon after sunset at the end of October (Stayt, 1931). The Pleiades at this stage are low on the north eastern horizon in the evening. The Venda name for the Pleiades (with six stars sighted) is derived from *u lima* meaning 'to plough' (Stayt, 1931). The Venda referred to Orion's Belt and the Sword collectively as *makhali* or the 'rhinoceros', with the Sword being the horn of the rhinoceros. [Van Warmelo (1989) = *makhale*.] Although not mentioned by Stayt (1931), it is possible that the rising of Orion in the east in the evening around October may have been an additional Venda marker for the advent of ploughing. A lesser star near to *thuda* (note different spelling), according to van Warmelo (1989), is *thudana*.

The Milky Way was known as *molalavungu*, seemingly from some resemblance to the hair on a man's chest (Lagercrantz, 1952). Van Warmelo (1989) indicates that *mulala-vhungu* is the term for the Milky Way or a rainbow. Another star is *mboho* which van Warmelo says is seen in the east (to some a star which precedes the rising of the Pleiades) while to others a star, the rising of which 'marks the advent of winter'. Likewise of relevance was a star known as *ya-vhadinda* which is seen in the east in certain seasons (some time before sunrise), and which precedes the Morning Star (van Warmelo, 1989). One meaning of the term *tshifhefho* is the Large Magellanic Cloud (van Warmelo, 1989). The word *tshifhefho*, as we have already seen, also means autumn. Gottschling (1905), in a further explanation, states that the Venda knew the 'Cape clouds' as indicators of spring and winter, and named these celestial objects accordingly. The Small Magellanic Cloud was called *tšelimo* or 'spring'. The Large Magellanic Cloud was referred to as *tšefefo* ('winter') or *ndala* ('hunger') since food in winter is in short supply, resulting in hunger. Note that an older orthography was used by Gottschling (1905). Hailstones, in some unknown manner, were connected with the stars (Stayt, 1931).

The San

The discussion at this point is divided into the celestial beliefs and observations of the /Xam, and then the other San groups.

The /Xam

The /Xam term for a star, according to Bleek (1929), is */kwattən* (**not** /kwatt**e**n). The /Xam were close observers of the heavens (Schapera, 1965). The stars provided welcome light at night especially in the absence of the Moon. The stars were believed to have once been people or animals of the Early Race, or in certain cases, people who had been transformed for breaking a taboo. Several stars had names associated with animals and objects which were seen at particular times of the year (i.e. in the appropriate season or when abundant). A close connection with food sources is apparent here (Schapera, 1965). The 'behaviour' of these stars, in other words, was perceived as being responsive to human needs, which

explains the necessity for the people to interact with given stars and the Moon to obtain food (Hollmann, 2007). Schapera (1965), citing W.H.I. Bleek, refers to the fact that the names of some stars may have resulted in /Xam attempts to discover the shape of the animals or objects in the night sky. What is suggested in this case is a mental map of groups of specific stars (i.e. San 'constellations'). Mythological personification, according to Bleek, could have accompanied spatial recognition of the stars, leading to the heavens becoming the scene for 'numberless poetically-conceived histories' or myths (Schapera, 1965). Hewitt (2008), however, observed that there are only a few /Xam narratives or stories where the animals named are actually associated with those stars having animal names. Every /Xam man had a wind of some description (for instance: easterly or cold) associated with him, and which blew when the man, as a hunter, killed an animal. The wind was said to be 'one with the man'. Certain game animals and some stars also had winds associated with them. These winds were thought to interact with a hunter who had killed an animal. The nature of this interaction is unclear, although the man's wind was influenced in some manner by the animal's wind, and the star's wind by the man's wind. Different kinds of rain were likewise thought to be linked to individuals in this way. The man's wind and the rain were permanent attributes of that person (Hewitt, 2008).

The stars as well as events resulting in them becoming stars are closely linked to beliefs about */ko:ode* and *!gi* (i.e. supernatural potency) (Hollmann, 2007). The stars have will, intention and speech. The stars, being filled with supernatural potency, can help people, but can also cause death and misfortune. An example is the Great Star known as *!gaunu* (or *!Gaunu*) which used his supernatural potency to kill people by stabbing them in the chest with a 'magically charged' object resembling a bone needle (Hollmann, 2007). The Great Star used his authority and power to name other stars by singing out their names, which these stars accepted, since it was the Great Star which had named them (James, 2001). James speculated whether the naming procedure may have occurred in the time of the Early Race, given that the /Xam themselves named certain stars. One exception is Canopus which was named by /Kaggen (a /Xam supernatural being and trickster: **see Chapter 2**) (James, 2001). /Han≠kasso or /Han≠kass'o, one of the Bleeks' /Xam informants, described stars that 'curse for them (people) the springbok's eyes' by exclaiming '*Tsau! Tsau!*' (Hollmann, 2007). The stars curse in summer (Bleek and Lloyd, 1911). It is possible that such cursing was to help the /Xam in tracking and hunting game.

The Great Star had an elder sister called *!Guonni* (or *!Gaunu* but pronounced in a slightly different way) (James, 2001). The second (sister) star was described in the /Xam texts as a *≠ku-kyam* (a type of flower). The Great Star asks his sister when her granddaughter, a young star whom the Great Star loves and whom he refers to as a *//garraken* flower will open (begin to shine). James commented that it was strange that the Great Star did not ask the young star directly. The reason, perhaps, was due to the large difference in their respective ages, power and status, or as a result of some constraint based on the 'subtlety' of the Great Star's emotions. The *≠ku-kyam* flower, which is starting to open, then asks the same question of the *//garraken* flower, the response to which is that it is now opening. The Great Star, on discovering the latter fact, becomes happy and sings. Since the Great Star is happy, he likewise starts to open and shine. The Great Star sings of this (opening) event and asks his elder sister (the *≠ku-kyam* flower) to confirm that she too is opening.

He continues to sing of, and/or to, the young star asking 'rhetorically and in celebration' if she is also opening. It is unclear if this song was only sung on one occasion by the Great Star, or whether he repeated the song 'every evening' (James, 2001). The song was sung not just by the Great Star, but also by the /Xam women. The song was a special song of the women, perhaps because of the female gender attributed to the two stars (the grandmother and granddaughter) which as we have seen have the names of flowers; and possibly also because the song deals with edible *veldkos* ('veld food') which was gathered by the /Xam women. The *//garraken* plant is a flowering bulb which was dug up, while the *≠ku-kyam* plant has daisy-like flowers which bloom in spring (James, 2001). James suggested that the second plant was the Cape/Rain Daisy or Witbotterblom/Wit Sôe (*Dimorphotheca pluvialis*), which has snowy white flowers with glossy, shining petals. Note that *pluvialis* refers to rain. This species is found throughout Namaqualand and in the Clanwilliam area, and is also widespread in the south western Cape and in Namibia (le Roux and Schelpe, 1984). We thus have two senior stars, the Great Star and his sister, and a minor or 'young' female star. The identity of these stars and their further importance to the /Xam in terms of food is examined a little later.

Several taboos applied when a /Xam girl underwent her puberty rites at her first menstruation, and was kept secluded in a tiny hut or 'house of illness' some distance from the settlement (Schapera, 1965). The girl had to remain in her hut and not venture out except to defecate. The girl received various instructions from her mother and other women on her role and required behaviour (while in the hut and after being released) at this important stage of her life. Any transgression of the taboos was a serious matter and could have severe repercussions. The girl was not permitted, amongst other things, to look at men or be approached by men in case harm came to both parties. It was thought in a mythical sense that men who were observed by a girl in these circumstances became fixed in whatever position they then occupied, or were changed into stones, or trees which talked, or stars in the sky. Girls who were killed by lightning accompanied by rain, and while out in the open, could be converted into stars as punishment (Schapera, 1965).

Girls who had undergone their first menstruation were only freed from seclusion at the appearance of the New Moon (Watts, 2005). Watts indicates that menstruation is implicitly associated with the dark Moon in several versions of the /Xam myth about the Leopard Tortoise or Berg Skilpad (*Geochelone pardalis*) (see Bleek and Lloyd, 1911 and the Bleek and Lloyd collection). A San informant (Qing) related a possibly Maloti (Maluti) variant of this story to Joseph Millerd Orpen. In the latter instance, Cagn (as a trickster) has his hand trapped by a river-dwelling creature. The Leopard Tortoise is one of the creatures of Rain or Water (!khwa), a supernatural being (**see Chapter 2**). Note that Watts (2005) gives the spelling as !Khwa, and provides a brief summary of the myth including the version recorded by von Wielligh (Deel I: 1921). Watts suggests that the term !Khwa could also be applied to menstrual blood, and that this being in a personified form is primarily the enforcer of menstrual observances. Watts also states that !Khwa is male, and that in enforcing taboos regarding menstruation !Khwa was identified with the violent male rain (i.e. thunderstorms). A /Xam girl, while in seclusion, possessed the destructive supernatural potency of !Khwa and was a potential danger to the entire band. The reincorporation of the girl into the band at New Moon 'magically' assisted with forthcoming hunts and

attracted female rain (light showers) which were welcomed by the /Xam. The girl was then reintroduced to water and appeased !Khwa by sprinkling powdered red haematite or *ttò* over the water, failing which, !Khwa might make the currently used water point dry up completely. Watts (2005), citing another source, goes on to state that the female initiate, like the female rain, was perceived to be red. !Khwa, as we have already seen, was beneficial to the /Xam beyond the menstruation rites. /Xam informants of von Wielligh described the Watersnake (**refer to Chapter 3**) as a supernatural being (Watts, 2005). This being shared several attributes with !Khwa, including the same role in menstruation. A detailed discussion of events surrounding the puberty rites of /Xam girls can be found in Hewitt (2008).

A much-quoted /Xam story is that of *The Girl Of The Early Race, Who Made Stars*. It is related that a girl of the Early Race (the first maiden) wanted some light so that the people (hunters) could find their way home in the dark (Schapera, 1965; Wessels, 2007). The girl first gently threw wood ashes into the sky, with the ashes turning into the Milky Way and forming a path of white ashes (Wessels, 2007). The girl gave detailed instructions on how the Milky Way, the stars and the Sun should arrange themselves relative to each other, both temporally and spatially. The formation of the Milky Way was thus the prelude to the creation of the other stars. The girl took scented *!huin* roots (eaten by some San) and threw them into the sky, with the red or old *!huin* making red stars, and with the white or young *!huin* making the white stars (Wessels, 2007). [Hewitt (2008) describes *!huing* (note different spelling) as a plant with a scented white root which turns red when old. The plant possibly has a red flower.] It is stated that the (hungry) girl, undergoing her puberty rites at the time, was angry with her mother for deliberately not bringing her enough *!huin* to eat (deprivation being part of the rites). Wessels (2007) observed that two versions of *The Girl Of The Early Race, Who Made Stars* were recorded by the Bleeks. The variant given here was told by //Kabbo, and was extracted from *Specimens of Bushman Folklore*. In the other version by /Han≠kass'o (in the Bleek and Lloyd collection) it is said that the girl threw the ashes and roots into the sky in a fit of petulance at her taboo condition, with these objects seemingly as an unintended consequence, becoming the Milky Way and the stars (i.e. the same story, but with a different emphasis). The stars as indicated can have good and bad connotations. The girl, in terms of the story, can perhaps be said to be the originator of this dual purpose celestial function because she created the stars. Wessels (2007) examined further detailed ramifications of the story, but which are not considered here.

It is also related how a girl of the Early Race, at her time of seclusion during her puberty rites, peeped out of the entrance to her hut and saw a family of Early Race rock rabbit people (animal-people) eating together outside their house of branches (Schapera, 1965; Hollmann, 2007). The people and all their things including the house and the fire were 'fixed' by the girl's looks (gaze), and became stars in the sky where they can be seen in the form of a constellation, the Southern Crown (Corona Australis). These star people were named the 'house of branches' because they sat at the opening of the house in a half-circle when they were transformed (Schapera, 1965; Hollmann, 2007).

Prayers were addressed to the Sun, the Moon and the stars (Schapera, 1965). The reader is reminded here that certain modern anthropologists do not accept San 'worship' of the

celestial bodies (**see Chapter 3**). We shall continue, however, with the version provided by Schapera (1965) which was drawn from the older literature. The /Xam prayed to the stars for food in the form of successful hunting and the gathering of *veldkos*. Particular stars were asked for certain foods which probably became available around the time that the star first appeared in the evening sky. Canopus, as one example, was known as the 'Bushman rice' (winged termite) star. Canopus was addressed in the following manner:

O Star coming there,
Let me see a springbok,
O Star coming there,
Let me dig out ants' food
With this stick;
O Star-body coming there,
Let me dig out ants' food
With this stick;
O Star coming there,
Let me see a springbok to-morrow;
O Star coming there,
I give thee my heart;
Do thou give me thy heart;
O Star coming there,
I may see a proteles to-morrow,
Let the dog kill it,
Let me eat it,
Let me eat filling my body,
That I may lie and sleep at night.

The original source of the prayer is Bleek (1929). The text was reproduced in Schapera (1965). The species mentioned is the Aardwolf or Maanhaarjakkals (*Proteles cristatus*), which feeds almost exclusively on termites and lives in holes in the ground (Smithers, 1986). Hewitt (2008) confirmed that the /Xam hunted and ate this animal. Canopus, as we have just seen, was the star of the white ant larvae or Bushman rice. In scientific terms, the species is evidently the Northern Harvester Termite or Rysmier (*Hodotermes mossambicus*). The white nymphs of the species are known in Afrikaans as the 'rice-ant'. This termite species is widely distributed in the arid and semi-arid parts of South Africa (Hewitt, van der Westhuizen, van der Linde and Mitchell, 1990); and is an invaluable source of protein for birds and several small mammalian predators, especially during droughts and in winter (Kok and Hewitt, 1990). The alates or reproductives (winged termites) of the species, which usually swarm 3–5 days after the first significant spring rains (in October or November) are a particularly rich source of food (Hewitt et al., 1990; Kok and Hewitt, 1990). This description relates to the summer rainfall region of South Africa which excludes some, but not all the /Xam. It should be borne in mind that the /Xam informants of the Bleeks were from the more northern parts of the old Cape Colony. The available evidence suggests that these informants were originally resident in the summer rainfall region [a point confirmed by Hewitt (2008)], prior to their arrival in Cape Town (a winter rainfall region). One explanation is that the termites were dug out in winter (as

indicated in Bleek and Lloyd, 1911) in the summer rainfall region. The term 'Bushman rice', in other words, could perhaps be descriptive of the species rather than the form in which the termites were consumed. It is quite possible that the larvae of the termites, the pre-emergent nymphs and the winged termites were eaten. The /Xam would certainly not overlook the latter free supply of flying food. Picker et al. (2004) noted that the spherical hives of the termites in their subterranean nest systems are filled with white nymphs, hence the Afrikaans common name of these insects. Yet a further possibility is that the species concerned is the Southern Harvester Termite (*Microhodotermes viator*) which is found in large parts of the old Cape Province in both the winter and summer rainfall regions. Picker et al. (2004) make no mention of any emergence of the alates in spring, nor does the common name refer to Bushman rice. Workers of both species are frequently seen running across the ground in winter, foraging for plant matter. The Bleek (1929) description, nevertheless, clearly refers to digging for termites and not simply picking these insects off the ground. Hewitt (2008) states that /Xam men used digging-sticks to unearth the termites. The /Xam digging-stick was about 1 m in length and was sharpened at one end, or was possibly capped by an animal horn. The women used a rounded stone with a hole in the centre to provide weight to the digging-stick, although the men did not need this stone (Hewitt, 2008).

/Han≠kasso indicated that his grandfather spoke to Canopus when it appeared in the sky (Hollmann, 2007). The grandfather asked the star for her heart 'with which you sit in plenty' in exchange for his heart 'with which I am desperately hungry'. The grandfather, in addition, asked to trade stomachs with the star for the same reason, and further requested the star to substitute her arm for his, so that he could aim better and shoot a springbok (Hollmann, 2007). It is evident that the grandfather's request was made when food sources were scarce. Hollmann observed that both Canopus and Sirius were respectfully addressed as 'grandmother', and that these stars were associated with the presence of termite alates. Another of the Bleeks' /Xam informants, //Kabbo, referred to the appearance of the *//kohai* stars, which were linked with '*//kohai*'*s* rain' and the emergence of 'the rice's maggots' from the wetted earth (Hollmann, 2007). These stars are also referred to in the /Xam texts as the *//Xwhai* stars (James, 2001). Lucy Lloyd described the stars as 'being a family group of three stars' within the constellation of Aquila. The constellation forms part of the Milky Way (see below) (James, 2001). The stars were identified by two astronomers at the (then) Royal Observatory in Cape Town as the bright star Altair, which is flanked by two fainter stars (Bleek and Lloyd, 1911). The two outer stars are more or less evenly spaced on either side of Altair. The three stars together are virtually in a straight line. The two fainter stars are Tarazed and Alshain. One point of interest is that the constellation of Aquila culminates at around 20:00 at the end of September, and lies due north in the night sky (C. Turk). The timing of this scenario tends to confirm the supposition that the termites in question are *Hodotermes mossambicus*. The stars named by the Great Star (*!Gaunu*) in song are none other than the *//Xwhai* stars (James, 2001). These stars lie in the north from whence came the wind which brought rain to the /Xam (at the time of the year under discussion) (James, 2001). The Great Star is evidently Altair, although the identity of the other two stars (the elder sister and her daughter) cannot be determined with certainty. It can perhaps be surmised that the brighter of the two fainter stars is the elder sister. The apparent magnitude of the two stars is accordingly one line of enquiry, but which is not

pursued here since this is purely speculation. There may indeed be other criteria involved which cannot now be identified. Mayall and Mayall (1954) confirmed that Altair, Tarazed and Alshain constitute the 'Family of Aquila' in an astronomical sense. Altair rises in the early morning just before dawn in early March (T.P. Cooper).

The *first* appearance of Canopus in the early morning on the south eastern horizon in mid-late May was the occasion for a particular ceremony (Schapera, 1965). The /Xam officiator asked a child to pick up a piece of wood and give it to him. One end of the wood was placed in the fire by the officiator, who then pointed the burning end at Canopus. The /Xam as we have seen perceived Canopus to be a grandmother which 'carried rice' for them. The star (grandmother) would make 'a little warmth' for the people, and although she 'coldly comes out', the Sun would 'warm grandmother's eye' for the /Xam (Schapera, 1965). There are four /Xam names for Canopus (Bleek and Lloyd, 1911); of which the least complicated is *!kēīssĕ*.

The *first* rising of Sirius or *!kúttăŭ* in the early morning on the eastern horizon around mid-June was greeted by a /Xam ceremony very similar to that for Canopus (Schapera, 1965). [Note that the exact diacritical mark over the *a* and the *u* in *!kúttăŭ*, as given in Bleek and Lloyd (1911) cannot be reproduced in this book, and consists of a single somewhat-flattened curve above both letters, i.e. not the two marks as indicated.] The man who first observed *!kúttăŭ* was asked to burn a stick on behalf of the band to ensure that the Sun emerged shining for the /Xam, and that Sirius would not 'coldly come out'. The man's child passed him a small piece of wood (a stick). The father held one end of the stick in the fire until that end caught alight. He pointed the burning end towards Sirius, and rapidly moved the stick up and down. The man sang about Sirius and Canopus. The objective of pointing with fire ('throwing fire') at Sirius and Canopus was so that both stars would twinkle like each other. The man completely covered himself with his *kaross* (including his head) and lay down. He subsequently stood up and sat down again, but did not lie down once more. The man believed that he had then done his work by placing 'Sirius into the sun's warmth', so that Sirius could 'warmly come out'. Schapera (1965) made the point that both stars appear in winter, and that the cold weather was associated with these stars. The two /Xam ceremonies, as per Schapera, can be viewed as a 'warming incantation'. There was, further, the belief that the ceremonies would make the two stars rise higher, since the higher they were above the eastern horizon at sunrise, and the more brightly they twinkled, the sooner winter would come to an end. Canopus thus appears to function in two roles: (a) in spring as a food indicator or provider, and (b) in winter as some sort of 'wishful temperature control mechanism'. James (2001), citing the /Xam texts, refers to Sirius as singing a song, with the star being known as the 'honey-singer star'.

The /Xam divided all the stars into day (i.e. dawn) stars and night stars (Hammond Tooke, 1888; Hewitt, 2008). Achernar was regarded as the Star-digging-stick's stone or the Digging-stick's stone of Canopus (Schapera, 1965). The Pointers to the Southern Cross were male lions, while alpha, beta and gamma Crucis were lionesses (Schapera, 1965). The two male lions (known as !Gu and !Haue ta ≠hou) had once lived on Earth, were malevolent and wandered around, but were also foolish (Hewitt, 2008). Their stupidity eventually resulted in their death. In one /Xam version of events, the lions were turned

into the Pointers, although in other versions they were killed by their own victims (Hewitt, 2008). Aldebaran was a male hartebeest and Orion, a female hartebeest (Schapera, 1965). [Hollmann (2007), citing two different Bleek/Lloyd sources, refers to alpha Orionis (i.e. Betelgeuse) as a female hartebeest, and Betelgeuse as a tortoise. Such disparities are not unknown in /Xam mythology.] Orion's Sword consisted of three male tortoises hung from a stick (Schapera, 1965). The Belt, in turn, was formed from three female tortoises suspended in the same manner (Schapera, 1965). The reason, perhaps, was that tortoises are active in the Cape veld when Orion becomes visible in spring (Palmer, 1974). Another description of Orion's Belt is that of springbok stars as per Hollmann (2007). The explanation according to Skotnes (2010) is that the stars of Orion's Belt were named for the hunter who startled the springbok, the hunter who drove them forward, and the hunter who lay in wait for the springbok (i.e. three hunters). Procyon was a male eland, with Castor and Pollux as his two eland wives. The Magellanic Clouds were perceived to be a steenbok (Schapera, 1965); or ostrich eggs in the nest (Hollmann, 2007). The former is an antelope, the Steenbok or Vlakbok (*Raphicerus campestris*). /Xam women sang to Venus 'with their throats' to make this star set (James, 2001). The Pleiades were summer stars or 'summer's things'.

The Milky Way resembled the massive herds of springbok, which like the stars travelling across the sky, were never still and forever moving over the landscape (Skotnes, 2010). //Kabbo provided an explanation of the Milky Way based on direct observation of the heavens (Hollmann, 2007). //Kabbo described the movements of the Milky Way and the other stars as following fixed paths across a stationary background of 'sky'. //Kabbo also referred to the changing orientation of the Milky Way during the night. The stars know where they are going and why (i.e. have reason and purpose), and take the movements of other celestial bodies into account. The stars disappear in the morning and reappear at night according to the passage of the Sun, and can have different colours (Hollmann, 2007). A further /Xam informant of the Bleeks was Dia!kwain or Diä!kwain who was taught by his father to watch the stars (Skotnes, 2010). The father instructed the son, when sitting (waiting) at a porcupine hole at night, to watch for falling stars to see where they landed. That place was where the porcupine, a cautious nocturnal animal, was to be found. The porcupine came back from this locality (where the star seemed to fall). The porcupine was alert to danger since it listened for death with its ears and used its nose (i.e. its acute sense of smell). This animal watched the stars and knew 'with its thinking strings' to turn back home as soon as the Milky Way turned back (altered position in the sky) and the Dawn's Heart (Star) rose (i.e. as dawn was approaching). Bats were another indication of the movements of the porcupine. Bats, as per Dia!kwain, accompanied the porcupine while the porcupine was out seeking food. The presence of bats at a porcupine hole (in which the bats lived) was a sign to the hunter that the porcupine had returned to its burrow. Skotnes (2010) commented that the story was told to Lucy Lloyd, and that Dia!kwain's father was clearly worried about the dangers of life at that time on the virtually lawless frontier when his son could become orphaned, and forced to fend for himself. The father, in other words, gave his son a lesson in survival in terms of hunting porcupines and thus obtaining food. James (2001) confirmed that /Xam children needed to be taught self-reliance in case they became orphans and the band was unable to provide them with food, particularly in difficult times. The porcupine homing behaviour described here, as per /Han≠kasso, refers

to summer ('when the dawn becomes red') since these animals return to their burrows in the dark in winter (James, 2001).

An important aspect of /Xam celestial mythology involves Jupiter, which according to W.H.I. Bleek is the Dawn's Heart (Star), one of the 'sky's things'. The Dawn's Heart Star married an Earth-bound woman of the Early Race (the Lynx), and had a daughter known as the Dawn's Heart Child (Hollmann, 2007). W.H.I. Bleek explained that the father swallows his daughter and then walks alone as the only Dawn's Heart Star. The father spits his daughter out when she grows up. The daughter, in turn, becomes a female Dawn's Heart Star and spits out a child of her own (another Dawn's Heart Child), which follows the male and female Dawn's Heart stars. The three celestial bodies (father, daughter and grandchild) 'sail' along in the sky together (Hollmann, 2007). Koorts (2007) citing expert opinion indicates that these stars must be close together in the heavens (and often seen as such), failing which, a close relationship would not have been attributed to them by the /Xam.

There is some debate about the identity of the three stars. Snedegar (2006) suggested that the Dawn's Heart Star proper is Venus. This conclusion was based on a conjunction involving Jupiter and Venus in the morning sky on the 15th of October 1873. The daughter star, variously pointed out as a small star close to, or preceding Jupiter was identified by one or two astronomers at the Royal Observatory in Cape Town as Regulus (Koorts, 2007). Koorts believes that Venus is not the (father) Dawn Heart's Star, since it does not have 'children' (satellites or moons) whereas Jupiter does. Koorts (2006; 2007) citing astronomical opinion maintains that it is possible that observers with a high degree of visual acuity and in conditions of crystal-clear visibility can see one or more of the four moons of Jupiter with the naked eye. These moons are Io, Europa, Ganymede and Callisto. The apparent magnitudes of the moons are +4.8; +5.2; +4.5 and +5.5 respectively. Readers are reminded that the *brighter* the celestial object, the *lower* is its apparent magnitude. It is a moot point (a) whether Koort's hypothesis regarding Jupiter/Venus is correct, (b) whether any of the moons could frequently be seen by the /Xam, and (c) assuming the latter, whether one or two of the moons constitute the star or stars in question. It is likely that the story was often re-told around the camp fires at night, and that the /Xam were motivated to search the skies over the years for the relevant stars. We cannot be certain, unfortunately, exactly which stars the /Xam had in mind. Hewitt (2008) was of the opinion that the /Xam definitely regarded Jupiter as a day star of considerable importance. Some additional details are that the Dawn's Heart Star (known as *Gaue /ẽ*) came out of the sky to marry the Lynx. The story thus incorporates both celestial and animal components (Hewitt, 2008). Both the father and the daughter are red in colour, like the Lynx. This appropriate colour-coding was one reason why the marriage took place. There is accordingly a link between the Earth and the sky (Hewitt, 2008). It seems that the red colour of the two stars refers to the red sky at daybreak.

An integral and central element of the Dawn's Heart Star scenario involves the Hyena who poisons the Lynx and attempts to take her place (Bleek, 1929). The younger sister of the Lynx reveals this deception to the Dawn's Heart Star who drives the Hyena away, at which stage she (the Hyena) burns herself. The Dawn's Heart Star since that time walks by night

with shining eyes, which hyenas fear (Bleek, 1929). A slightly different version is given in James (2001), whereby the Hyena mother in the days of the Early Race tries to deceive the Dawn's Heart Star into thinking that she is his Lynx wife. The mother's purpose was to claim and abduct the star's daughter. The Hyena mother had to flee when her true identity was discovered, and in fleeing, she burnt her back legs in the cooking fire. Hyenas from that day onwards fear fire, have heavy feet with black marks on their back feet, and scavenge and eat raw meat. The hyena, as per //Kaboo, is 'an angry person' (James, 2001). Jupiter's brightness in the early morning was thought by the /Xam to frighten those animals which hunt mainly at night (Hewitt, 2008). These include the jackal and especially the hyena which is notorious for its nocturnal activities. The inference in this case is that dawn is coming and that hyenas will no longer have the protection of darkness for their evil deeds. There are three /Xam narratives concerning the Dawn's Heart Star which are discussed further in Hewitt (2008).

Reference was made in **Chapter 2** to a relatively new source of /Xam stories originally recorded in the 1880s in Afrikaans by G.R. von Wielligh. Two of the stories concern the Morning Star and the Evening Star (von Wielligh Deel I: 1921). The information was drawn from Koorts and Slotegraaf (2007). The Sun had two sons, Dawn and Dusk. The sons helped their father with his daily needs, such as bringing him breakfast and supper and helping him in and out of bed. Dawn, the elder son, was happily married and rejected the advances of a certain maiden. Wolf, the maiden's spiteful father, murdered Dawn and skinned him. At the first incision, however, Dawn's sparkling heart flew out and went into the sky, there to become the Morning Star. Dawn then came to fetch his wife (the Lynx) as well as the children and grandchildren to live with him as stars on the sunrise side of the sky. [There is some discrepancy regarding the number of children.] These stars, which follow behind their parents, are the brightest in the heavens. The big, bright Morning Star is of special significance and is the Heart of the Dawn.

The second story is about the Evening Star. Dusk, the younger son, had large eyes so that he could see properly to undertake his daily duties, which began at sunset and lasted until dark. Wolf's daughter, the jilted maiden of the first story, subsequently took an interest in Dusk who was likewise happily married. Dusk's wife became grief-stricken and turned into the Owl when their child was stolen by Wolf's daughter. Dusk sought revenge and found the errant maiden at Wolf's house. Wolf calmed Dusk by telling Dusk that his wife and child were waiting for him at a nearby cliff. Dusk and Wolf walked there together and when they reached the edge of the cliff, Wolf pushed Dusk down the precipice. Dusk fell to the bottom of the cliff where one of his bright eyes burst. The other eye flew into the sky to become the big, shiny Evening Star. The Evening Star, in other words, is the eye of Dusk. To this very day, the Owl cries at night lamenting for her child. Wolf continues to push Dusk down behind the western ridges every evening (Koorts and Slotegraaf, 2007). It is interesting to note that the Morning Star apparently receives preference in the order in which the stories are told (i.e. the older son versus the younger son). The only recorded item of stellar information from the San in Lesotho, the Maloti (Maluti) San, is that Cagn (the creator) placed the Milky Way in the sky 'to support the snow' (Orpen, 1919).

The !Kung

One of the key San informants in the Bleek household was !Nanni (an !Kung youth). !Nanni had an intriguing explanation for the disappearance of the stars during the day, and stated that stars are 'small dark-coloured things that live in holes in the ground' (Skotnes, 2010). Stars have small arms but no horns. A star, being afraid of the Sun, burrows into an earthen hole in the morning. The star only ascends into the sky at dusk. A star in its day-time burrow was a dead thing (not a star at all) and could be dug up and disposed of without care. The stars, nevertheless, appeared in the sky each night and were symbolic of endurance, survival and continuity (i.e. a defeat of death). During the day boys hunted for stars which had fallen in the night, and could see their burrows on the horizon. Fallen stars, which died as they fell to the ground, returned to the sky at night. The stars, according to !Nanni, had an effect on the living. !Nanni described the 'upper pointer to the Southern Cross' as the mother of the Moon (Skotnes, 2010).

Marshall (1975) discussed various stars known by the Jũ/wã at Nyae Nyae. *Jũ* means a 'person' and */wã* means 'proper', 'pure' or 'real'. The people call themselves Jũ/wãsi. This group is otherwise referred to as the Ju/'hoansi or the !Kung. The celestial information given here is descriptive of more recent times. The stars are the 'things of the sky' (Marshall, 1975). The !Kung know nothing of the nature of the celestial bodies or their specific movements (Marshall, 1999). The Ju/'hoansi do not pray to the stars or the Moon, nor do they believe that the stars are able to influence events on Earth, such as causing rain to fall or withholding rain (Marshall, 1975). The stars do not affect the supply of food and are therefore not of great interest to the !Kung (Marshall, 1999). The !Kung are well-aware of a number of stars, and also have names for other stars which are recognized in certain positions in the sky, particularly if there is some folklore attached to the star, or if the star is of seasonal importance. The !Kung, nevertheless, may not be able to identify a given star when that star is not in its known position. A further complication occurs when a planet is in close proximity to a star of significance and 'outshines' the star. The !Kung in this case may transfer the name of the star to the planet without too much concern (Marshall, 1999). Some San believe that the stars are the eyes of the dead, although this concept is foreign to the !Kung at Nyae Nyae (Marshall, 1962). Three scenarios were advanced by the Nyae Nyae !Kung regarding the whereabouts of stars during the day (Marshall, 1999). Some informants thought that the stars remained in the sky and could not be seen because the Sun was so bright. Others believed that the stars fell to Earth wherever they were at dawn and ascended into the sky at night. Further informants thought that the stars move across the sky and then fall to Earth in the west, as the Moon and the Sun are thought to do. No explanation was put forward on how the celestial bodies returned to their places in the night sky (Marshall, 1999).

Contemporary !Kung religious beliefs are that there are two gods: a great god and a lesser god (//Gauwa) who both have wives and children (Marshall, 1962). The great god has several divine names (two of which are Hishe and Huwe) and which are not readily spoken of. The great god is generally known by the 'earthly name' of ≠Gao N!a (one commonly used for men) or Old ≠Gao (Marshall, 1975). [Note that Marshall (1962) refers to the great god as ≠Gao!na.] The two gods are attended by the spirits of the dead or //gauwasi who mainly obey the great god, but who are also the servants (*≠gasi*) of the lesser god

(Marshall, 1962). The //gauwasi include the children of the two gods. The people fear the //gauwasi and pray to them for their mercy or sympathy, or when angry. The great god lives in a house in the east at the place where the Sun rises, while the lesser god lives in a house in the west where the Sun sets. The house of the great god is made of stone, has two levels, is long, and has a shiny corrugated iron roof. There are big doors at the ends of the house and small doors (windows?) on the sides. The spirits of the dead live on the ground floor and the great god and his wife and children live on the upper floor (Marshall, 1962). All these beings are thought to live in a sky which cannot be seen from Earth (Marshall, 1986). This locality is above the sky which encompasses the Sun, the Moon and the stars (Marshall, 1986). There is, in other words, an 'upper sky' and a lower sky (the latter is the one that all can see).

The *current* understanding, according to Marshall (1962), is that the great god is all-powerful and thus has control over death (contrary to the old beliefs: **see Chapter 2**). The 'new variant' of the great god is therefore much feared, although he remains the creator. The lesser god has *now* become subservient to the great god, and is a servant who carries out the orders of the great god. The lesser god, however, retains a considerable independence and initiates his own affairs. He does both good and evil deeds with the emphasis on death-giving and evil-doing. One of the tasks of the lesser god is to advise the great god on the welfare of the !Kung. He may, for example, tell the great god that some of the people need food (if this was the case), or that lightning had killed several people. In the latter instance he asked the great god what could be done about this misfortune. The !Kung associated whirlwinds which are 'a death thing' or 'a fight' with the lesser god. The lesser god walks in the whirlwind and his smell is in it. If a whirlwind passes over someone that person will sicken and die. The //gauwasi also come in whirlwinds. Marshall (1962) concluded that many of the attributes of the lesser god were the same as (or similar to) those of the old, traditional //Gauwa. There was accordingly a duality in the functions of the great god, the lesser god and the //gauwasi, who could all perform good or bad deeds depending on circumstances. Some !Kung believed that the lesser god first lived in a hole (*/ga*). He made the hole by pushing the soil out with his head. The hole was like the hole of a hare, only very big. There were two entrances, one facing sunrise and the other facing sunset. The lesser god later built a house (Marshall, 1962).

The great god created himself and then the lesser god and their wives (one each) (Marshall, 1962). The great god, whenever he chooses, can take the younger wife (of the lesser god) to live with him in his house in the east. The great god created the Earth and named it *≠kxa*. He made waterholes and water. The great god made the sky in a dome over the Earth and also made gentle female and fierce male rain. The great god thereafter made the Sun which is a 'death thing', which dries up the *veldkos* and waterholes. The great god made the Moon and the stars all at the same time. Then he made the wind. He is the creator of all these things and he commands their movements. He made the things that grow on the ground and the animals (as animals) and the people (as people). First came a woman and later a man who subsequently got married. The woman gave the man fire and found *veldkos* to eat. Men and women were created to be mortal (live and die). The great god instructs the spirits of the dead or //gauwasi to live with him in the sky and (as we have seen) to be his servants. The //gauwasi take the spirit of a just-deceased person,

together with their blood and heart, to the house of the great god, although via an indirect route. The //gauwasi first convey the items in question to the house of //Gauwa in the western sky, but do not leave them there. The //gauwasi instead travel further 'around by the south to the east' to the great god. The great god changes the spirit, blood and heart of the deceased, by means of medicine (*n/um*), into a //gauwa (singular) who joins the other //gauwasi (plural) in the house of the great god. The great god orders these spirits to go down to Earth carrying sickness or death or good fortune to the people, as he pleases. The //gauwasi move around in the sky by using fine, although strong cords which are stretched out all over the sky. The cords resemble the strands of a spider's web and are invisible to people. The spirits of the dead descend to Earth on a cord which hangs down from the sky. This cord is used by shamans (medicine-men) when they climb up to see //Gauwa at his house (i.e. during a trance).

The great god also made all the medicines. He renews himself and all those beings who live with him in the sky (when they become old) through the application of medicine. The great god gave arrows, bows, *assegais* and digging-sticks to the people. He instructed them to use the digging-sticks to search for *veldkos* and the weapons for hunting. He gave the people the knowledge to make all the things which they now make, and taught them all that they now know how to do. He commanded men and women to marry, live together and have children. He controls the behaviour of people, whether good or bad, and arranges all things (Marshall, 1962). ≠Gao N!a placed *n/um* in many localities including medicine-men; medicine songs; medicinal plants; the Sun; falling stars; rain; bees; honey; ostrich eggs; blood; an unidentified edible fruit; the giraffe; a species of partridge, aardvarks (antbears) and fires made in certain situations (Marshall, 1969). The definition of *n/um* in this case is that of an invisible force or power which affects life in various ways, both good and bad (Marshall, 1986). ≠Gao N!a had very strong personal *n/um*.

Marshall (1986) described what seems to be a much older account of ≠Gao N!a and his role in !Kung thought. In this version ≠Gao N!a was not a creator or great god and lived on Earth. He was man-like but had supernatural powers. He was greedy, lustful, extremely self-centred and had great trouble managing his relationships with others. He raped his son's wife and ate his brother-in-law. He is however now a sky god (Marshall, 1986).

A further issue regarding ≠Gao N!a is that his secret names must never ever be uttered in the light of day, but only at night, and then only at trance dances (Thomas, 1959). If ≠Gao N!a hears one of his divine names being called, he will come to see who called it. ≠Gao N!a disliked being disturbed during the day and did not care for the hot Sun. He sent illness to anyone who bothered him in the hours of daylight. He is called at trance dances and cursed for the things he inflicts on the people. It is said that only a few exceptional shamans, when in a trance, have seen him (in various forms) although he usually has the same shape and size as a man. Since he is 'wild' (keeps his distance) he is always observed far away (Thomas, 1959). The shamans regularly saw the lesser god and the spirits of the dead at medicine dances when they were required to talk to, request, entice or combat these disease-causing entities in order to cure the sick (Marshall, 1962). This occurred when the shamans were in a full state of trance or *!kia* ('half-death') at which time their spirits left their bodies through their heads, returning in the same way. The great god did not come

to medicine dances, however. The important (and very brave) shamans only saw him in special circumstances when they harshly reprimanded him (in a trance) for bringing illness to the people. The great god, nevertheless, appears to anyone in dreams and 'helps all his people' in various ways. It was not the function of the shamans to pray for the people or to lead them in prayer. Everyone was free to pray in private directly to the great god, the lesser god, or the //gauwasi at any place or time and without any formalities. Prayers *inter alia* for rain, *veldkos* and success in hunting were said out loud or silently in the head. The people could also speak to each other in order to be overheard by these beings (Marshall, 1962). Marshall (1969) described a particular affliction known as 'sickness of the sky' or *ǂkwi n/aa*. Symptoms involve severe internal pain and illness which make the person feel genuinely ill all over. This illness is mysterious, dangerous to life and comes from ≠Gao N!a. 'Sickness of the sky' can include a strange illness present in someone without their knowledge (Marshall, 1969).

The stars of Orion are known as a *//kanosi* by the Ju/'hoansi (Marshall, 1975). This word evidently refers to 'groups of stars' which together are thought of as a 'constellation'. Marshall observed that the term *//kanosi* was also applied to other star groups as well. The three stars forming Orion's Belt are three zebra, although there is uncertainty regarding their gender. Some of the Ju/'hoansi believe that the two outer stars are female, while a male zebra is the middle star. Another viewpoint is that the central star is female, with the two other stars being males (Marshall, 1975). Marshall (1986; 1999) refers to the stars of Orion as *//Kanosi*.

The Large Magellanic Cloud is a place where a particular grass grows (Marshall, 1975). The grass is a soft, thornless grass which is greyish in colour, and which the Ju/'hoansi use for their bedding. It is said that the great god who lives in the eastern sky went out hunting one evening. He climbed onto the Large Magellanic Cloud and looked around from his lofty vantage point. He saw the three zebra, took aim and shot at the zebra, although his arrow missed its target, falling short. The arrow (Orion's Sword) can still be seen pointing towards the zebra. The three zebra being thus spared descend from the sky, with each in turn, stepping gently onto the Earth (i.e. the stars are seen on the horizon before disappearing altogether). This event occurs in summer (Marshall, 1975). Marshall (1999) indicates that the !Kung term for both 'horse' and 'zebra' is */kwe*. The Large Magellanic Cloud is known as *//Galli Ding*, where *//galli* refers to the soft grass with *ding* meaning 'base'. A minor difference in the later account by Marshall is that the great god, after having missed the zebra with his arrow, sends these animals down to Earth where they can be hunted by the people. Marshall (1986) gives the name of the Large Magellanic Cloud as */Gali Ding*, where */gali* relates to the grass and *ding* means 'spot'. Marshall (1986) confirmed that the great god sent the zebra to Earth as described. Some Naron or Nharo have the same belief in the story of a hunter standing on the Large Magellanic Cloud and shooting at three animals (zebra in earlier times, but more latterly giraffe) (Marshall, 1999).

The !Kung name for the two pairs of stars in the constellations of the Southern Cross and Centaurus is *Kalidi* (Marshall, 1999). Both pairs of stars have men's names. The two Pointers are known as *≠Toma* (alpha Centauri) and */Gaishay* (beta Centauri), while the

other two stars are *Kxoma* (alpha Crucis) and *Khan//a* (gamma Crucis). Marshall (1986) gives the one name as *!Kxoma* but otherwise confirms the stars and names as provided in her 1999 publication. The two stars of the Southern Cross were named after two sons of ≠Gao N!a (Marshall, 1999). [Note that Marshall (1999) uses the term ≠Gao!Na for the great god.] The boys lived a long time ago when ≠Gao N!a was still on Earth. A long story is associated with the two boys. It is related that the boys went hunting and were accompanied by two lions. The lions treacherously killed and buried both boys. ≠Gao N!a passed by and met the lions but noticed that his sons were not present. ≠Gao N!a suspected the two lions of evil deeds and set a trap for them. He asked the lions to fetch some water. ≠Gao N!a hid two magic horns in a tree while the lions were away. By flattering the lions he persuaded them to show him what good dancers they were. ≠Gao N!a tricked the lions into dancing under the tree. The horns, at his signal, sprang down and pierced the lions right to their hearts. ≠Gao N!a then resurrected his sons. The story does not state that ≠Gao N!a changed the boys into stars. The stars, according to the !Kung, were always stars and never people. The two stars, as we have just seen, were only named after the two sons of ≠Gao N!a (Marshall, 1999). Marshall (1962), however, states that the two boys were *turned* into stars which bear their names. These two stars were *Khan//a* (alpha Crucis) and *Kxoma* (gamma Crucis) which is the reverse of the above. This mythical account, as per Marshall (1962), does not form part of the present-day !Kung belief system.

Marshall (1975) indicated that the most important stars for the Ju/'hoansi are the Pleiades, Capella and Canopus. These three stars form a 'constellation'. The Pleiades are known as the *tshxum*, which is simply a name which does not mean anything. Canopus and Capella do not have individual names, but together are called the 'horns of the *tshxum*' or *tshxum–!Khusi*. No rituals are associated with the *tshxum* and its horns. Capella is known as the 'green leaf horn'. This star appears in the early morning in the north eastern sky, when the first flowers (for instance certain lilies) bloom. The Ju/'hoansi name for Sirius, according to some informants, is *//Kum* or the 'Hip bone'. Marshall believed that Sirius may once have been an integral part of the *tshxum* constellation, or was perhaps regarded as a separate star which had some relationship with this constellation. Marshall speculated that the name, Hip bone, could possibly be based on an imaginary line drawn (under optimum circumstances) from Canopus to Capella, and which passes through Sirius. The line bends slightly at Sirius. Hip bone may refer to this bend. The Pleiades, Capella and Canopus as a constellation mark the end of the dry season and the start of the rainy season (Marshall, 1975). This constellation is very noticeable in the early morning in September (Marshall, 1999). The *tshxum* with its horns is a '*bara* thing' (Marshall, 1975). *Bara* is the name of the main rainy season (the big rains) when vegetation is lush and the food plants are in full growth (Marshall, 1975).

There is a possibility that the horns of the *tshxum* once represented the horns of a mythical beast, since Canopus is the male horn and Capella the female horn (Marshall, 1999). In Nyae Nyae !Kung culture the right side is associated with maleness and the left side with femaleness. This evidence suggests, perhaps, an image of a great celestial beast with horns facing eastwards. Marshall (1999) speculated whether the *tshxum* and its horns were a sign of a rain-animal representing rain, plenty and contentment. Marshall (1999) based this supposition on the association of the Pleiades, Canopus and Capella with rain.

An additional piece of information is that the Nyae Nyae !Kung have a rain horn for inducing rain (Marshall, 1986). The horn is that of a duiker. Marshall (1986) did not think that the !Kung really believed in the effectiveness of the horn, with the people preferring to pray to the great god for rain. Marshall (1986; 1999) in her later account of events refers to *Tshxum* (the Pleiades) and *Tshxum !Khusi* rather than *tshxum–!Khusi*. Marshall (1975) indicated that the constellation was unknown by the Naron, the !Xõ, the !O Kung of southern Angola and the G/wi.

The Nyae Nyae !Kung believe that the Morning Star crosses the sky along with the Sun during the day (Marshall, 1999). The star is said to 'herd' the Sun. The Morning Star has two names depending on its position in the sky. This celestial body is known as 'Old Star' before the Sun rises. The second name applies later in the day, when the star begins to herd the Sun. The star is then referred to as *Kuli* //*Gashay*. The concept of the second name is that the star attempts to save itself by trying to escape from the heat of the Sun. The !Kung pity the star, which being so near to the Sun, suffers painfully from the heat. The people can use branches for shade, although there are no branches in the sky for the star. The !Kung apply the two names to whichever planet appears close to the Sun in the first light of dawn. The people believe that they can see the same celestial object once again in the western sky at sunset (in the place occupied by the Evening Star known to scientific astronomy). The Morning Star, according to the !Kung, therefore precedes the Sun in the morning and follows the Sun in the evening (Marshall, 1999). An identical belief is discussed below for the G/wi.

Another !Kung star is *Da Toa Toa* or 'Fire Finish Finish' (Marshall, 1999). Marshall renamed the star 'Finish Fire'. This star is associated with firewood and the fires which the !Kung use to warm themselves in winter, and around which they sleep. The star functions as a clock by indicating how much of the night has already passed, and how much remains (i.e. in terms of the position of the star in the sky). The people on a cold night in winter then know if they will have enough wood to keep their fire burning until morning. The !Kung describe the star as rising in the evening in winter and setting in the early morning, by which time the firewood has burnt to embers, or the fire has gone out. The star appears to be alone in an open part of the sky, and is easily recognized by the !Kung. It is possible that the star is Arcturus (Marshall, 1999).

The !Kung name for the Milky Way is *!gu !ko!kemi* meaning the 'backbone of the sky' (Lee, 1984). Marshall (1999) gives the Nyae Nyae term as 'Backbone of Night'. The whiteness of the Milky Way resembles the white belly of a steenbok. The Milky Way is a 'thing of the sky' with its own substance, shape and motion. The Nyae Nyae !Kung, nevertheless, do not know what the Milky Way is and do not have any folklore to explain this phenomenon. The Coal Sack is known as the 'Old Bag of Night', where the term 'old' is used in the sense of being worn out (Marshall, 1999). The !Kung maintain that the sandals of the First Bushman were accidentally burnt in a camp fire (Lagercrantz, 1952). The man became angry and threw the ashes and embers up into the sky, with the embers turning into stars and the ashes into the Milky Way.

Some present-day celestial information regarding the Ju/'hoansi in the environs of Nyae Nyae is that Venus, as the Evening Star, is occasionally greeted with a special dance

(A. Rogers). Elderly hunters in the more remote areas of Nyae Nyae still keep a close eye on the Milky Way, which they continue to refer to as the 'Spine of the Night'. The changing orientation of the Milky Way during the course of the night (where three different positions are noted) indicates the passage of time and also the changing seasons. This is despite the availability of radios and watches (A. Rogers). The Pleiades continue to be regarded as stars of importance by the Ju/'hoansi, and are thought of as a bag of ostrich eggs (Rogers, 2007). The reappearance of the Pleiades at dawn in June is linked to the hatching of ostrich eggs. The Magellanic Clouds are described as the soft grass which is used for bedding, and for the packing of ostrich eggs. The rising of the Pleiades in the evening in October and December heralds the wet season (the early and later rains). The Ju/'hoansi associate the Pleiades with Canopus and Capella. A variant of the story about the hunter and the three zebra, and still current, is that the hunter was carrying a bag full of ostrich eggs (the Pleiades). The angry hunter, having failed to shoot the zebra, left his arrow and the ostrich eggs in the sky. The Southern Cross is used as a fixed point to determine direction (not mentioned in the earlier reports). The colour of prominent stars and planets is observed, while the Coal Sack is still referred to as the 'Old Bag of the Night' (Rogers, 2007).

The !O Kung

Schapera (1965) alleged that the !O Kung of southern Angola had no separate names for any stars, with the same apparently the case for the Heikum or Hei-//om (Hai//om). Another explanation, perhaps, is that these names were never recorded. Marshall (1975), nevertheless, gives the !O Kung name for the Pleiades as *tshxum* (the same as for the Ju/'hoansi or !Kung). The !O Kung do not regard Canopus and Capella as horns of the *tshxum* (Marshall, 1975). Marshall (1999) using the term 'Tshimbaranda !Kung' (a particular !O Kung group) gives the spelling as *Tshxum* and states that Canopus and Capella are not joined (linked) to the Pleaides in any way by these !Kung, and certainly not as 'horns'. Marshall (1999) indicates that Canopus is the 'Big Star', with the Milky Way being known as the 'Backbone of Night'. The same !Kung group have no name for the Coal Sack, but think that it is a spot in the sky where there are no stars (Marshall, 1999). Note that Marshall (1986) referred to the Tshimbaranda !Kung as the Chimbaranda !Kung.

The Naron and Auen

The Naron believed that the stars were good predictors of the forthcoming seasons (Schapera, 1965). The Naron, according to Schapera, had names for the Pleiades, Orion, the Southern Cross and the Milky Way. The Naron refer to the Pleiades as *!xwe* (Marshall, 1975). The Naron were aware that the cold weather was coming when the Pleiades rose just before dawn, and that spring was at hand when the Pleiades were observed 'before midnight' (Schapera, 1965). The Naron thought that the Pleiades were a fire, beside which Huwe (the great god) sat telling stories (Marshall, 1975). All the people come to sit with him, at which time the stars of the Pleiades appear to be five in number. Seven stars can be seen when the people separate, each going their own way. The three stars forming Orion's Belt are zebra. The top star, the first to rise, is a male zebra with the two following stars being female (Marshall, 1975). It is stated that the Naron at Sandfontein were just able to see some of the brighter stars of the Great Bear (a northern hemisphere constellation) (Schapera, 1965). The Naron and the Auen or ≠Auin prayed to certain stars in the past, especially the Morning Star and the Southern Cross (Schapera, 1965). The Naron currently

regard Venus as the Morning Star, while Canopus is the 'Big Star' (Marshall, 1999). The Naron name for the Milky Way, as per Lagercrantz (1952), is *!nu≠xoni/waba*. Marshall (1999) indicates that the Naron describe the Milky Way as the 'Backbone of Night', which separates daylight from darkness. The Naron do not have a name for the Coal Sack. Sirius is known to the Naron as the 'Thigh' (Marshall, 1999).

Reference was made above to the !Kung star linked to the supply of firewood. Marshall (1999) states that the Naron name of 'Finish Fire' actually refers to two unidentified stars (a mother and a son). These stars rise in the evening on cold nights in winter and set in the early morning. The stars are particularly bright on very cold nights (suggestive of crystal-clear atmospheric conditions). The people often do not have sufficient wood and their fires burn to embers. The embers can be seen by the light of these stars. The mother star, as per the Naron, is red like the embers. Marshall (1999) suggested that the mother star could be Antares. This star is red in colour (resembling embers), rises in the evening in June, and culminates around midnight early in the month. The son could be any one of several stars in the constellation of Scorpius.

The farm-dwelling Naron of the Ghanzi district in Botswana currently believe in two deities or supernatural beings (Guenther, 1986). N!eri, a somewhat vague deity is the creator god of the upper sky, especially the remote, pale-blue regions. //Gãũwa, in turn, is the god of the lower regions of the sky and the veld over which he roams, and is sometimes a trickster. (The role of //Gãũwa as a trickster, however, is very different from his function as a deity.) Both deities created nature and mankind with N!eri being responsible for the main features, and //Gãũwa for some of the ancillary details. //Gãũwa is the rival of N!eri. The language of the Naron reflects the residential locality of N!eri, where the word for sky is *N!eri k'i* ('N!eri face') and the word for cloud is *N!eri /õõ* ('N!eri hair'). N!eri is the benevolent deity of the hereafter who deals with the souls of men and the transitional phases of the soul as it enters and exits the body at birth and death. N!eri sends the souls (*≠ĩ*) to Earth to be born, with most souls later returning to him after death. The Moon and the stars are associated with death and N!eri. The stars are thought of as the fires of the souls of the dead who are with N!eri (**see Chapter 2**). //Gãũwa, in contrast, is essentially a deity of the 'here-and-now' and of life. N!eri is remote from men, although he keeps a loose watch on the souls of men. He is likely to fall asleep or become busy with other matters, thereby allowing //Gãũwa to steal a soul. N!eri attempts to send a person a good death (*!gẽĩ //o*) where the individual dies quietly, without pain and in his sleep at an advanced age. The Naron pray to N!eri when ill or for rain, and especially during a drought. Rain (from the upper sky) comes from N!eri.

The primary characteristic of //Gãũwa is ambiguity, as evident in his emotional, physical and moral make-up (Guenther, 1986). //Gãũwa, while in the veld, sometimes lives in a large termite mound, or in a small grass hut at the time of male initiation. //Gãũwa, according to one Naron informant, moves from the sky to the ground and across the veld on invisible fibres (resembling a huge spider's web) which criss-cross the ground. //Gãũwa is linked to the wind, particularly whirlwinds, which are known as *//Gãũwa ≠a* ('//Gãũwa breath'). Some Naron believe that there is only one //Gãũwa, with others maintaining that there are many such beings (//Gãũwani) all over the veld. Those believing the latter also refer

to male and female //Gãũwani, and hence related //Gãũwani kin such as a wife or wives, sons, daughters and even servants. Certain Naron identify the spirits of the dead with the //Gãũwani: a belief which may have come from the nearby !Kung. The female //Gãũwa (//Gãũwassa) is of particular significance during male initiation and is sought after by male initiates. Her presence is simulated by old Naron men who build a small grass hut. The old men lead the initiates to this hut, and tell them that they are facing the house of //Gãũwa. The old men also whirl a bullroarer (a flat strip of wood attached to a cord), the sound of which the young men take to be the voice of the female //Gãũwa. The male //Gãũwa hangs around the menstruation hut of a girl undergoing her puberty rites. //Gãũwa keeps the young men and other girls away from the hut thus preserving the integrity of the rites (Guenther, 1986).

//Gãũwa is powerful, but can be very weak, stupid and a bungler (Guenther, 1986). The Naron regard him with awe (as a deity), but also in terms of hilarious glee, rage or mockery (as a trickster). He is a very personal deity whom every Naron perceives and reacts to in a different way. //Gãũwa has many public guises as a trickster, which are each associated with a given role, and which are assumed in specific circumstances. Three of his various names and guises are Pisamboro, Hare and Hise. Hare (*!õã*) is the veld trickster who plays ribald pranks on fellow animals and people and who features in the myth of the origin of death, while 'Hise' was probably derived from the Nama, whose prominent trickster is Heiseb. Many of the pranks undertaken by //Gãũwa turn out to be creative acts, for example, the creation of waterholes, pans and riverbeds in the Kalahari; the appearance of spots on the Moon, and the dark side of the Moon (**see Chapter 4**). These 'creations' were not deliberately conceived and enacted, but were merely the unintended side-effects of pranks which had gone wrong. //Gãũwa was accordingly not a 'grand architect' who created with divine purpose. Trickster stories and myths form an important part of Naron folklore (Guenther, 1986).

//Gãũwa is jealous of the powers of N!eri and often tries to imitate N!eri, or deceive him, or undo the good that N!eri has done (Guenther, 1986). //Gãũwa's bad temper, brooding moroseness and capriciousness is partly the result of this envy. N!eri is usually ignorant of the contrary behaviour of //Gãũwa due to his remoteness from man. N!eri occasionally becomes aware of //Gãũwa's misbehaviour and disciplines //Gãũwa with 'holy rage', which is evident in the form of thunder and lightning. //Gãũwa can lash out at men and shoot tiny disease arrows (*//xobe*) at them; or cover them with his shadow when they sleep in the day, or shake some of his hair into the wind with these hairs being carried to men and making them ill. A morose //Gãũwa causes strife for members of the band, where one person suddenly flies into a rage for no apparent reason, or verbally abuses or beats another person. A soul stolen by //Gãũwa (mentioned above) comes under his influence with the victim, the owner of the soul, becoming ill. A common type of Naron illness is known as *tssa N!eri* ('steal from N!eri'). The same explanation is advanced for someone who relapses, since it is typical of //Gãũwa to try to thwart N!eri by snatching the soul of the sick person, when that individual by the grace of N!eri is starting to recover from an illness. //Gãũwa can also bring a bad death or */xei //o* (one of pain, spasms, crying and kicking) to a person, instead of a good death bestowed by N!eri. Madness (*dimi*), likewise, is caused by the rivalry of the two deities (Guenther, 1986).

//Gãũwa sends illness and is in charge of the healing medicines (Guenther, 1986). //Gãũwa owns and controls all the medicinal plants of the veld, is the 'owner of the dance' (*/ri k"au*), and attends male initiation dances as well as healing trance dances. //Gãũwa aims his disease arrows at the stomach and sides of the trance-dancer, with the arrows being said to cause a great deal of burning pain and dizziness, and later inducing trance collapse. Such arrows striking a non-dancer result in serious disease. The trance-dancer with the arrows in his body is able to locate and see //Gãũwa. The trance-dancer begs //Gãũwa to remove the arrows from his body and from the bodies of all the people at the dance. //Gãũwa, instead of agreeing, can decide to leave the arrows in the trance-dancer's body, thereby ensuring that the trance-dancer readily achieves trance in subsequent dances. //Gãũwa may also give the trance-dancer a supply of arrows. The trance-dancer, at a future dance, can shoot the arrows at //Gãũwa, thus counteracting //Gãũwa's arrows. These arrows are also given to the trance-dancer by //Gãũwa during the healer's period of training. //Gãũwa may comply with the request of a trance-dancer and heal a sick person, or may vindictively refuse this request and kill the afflicted person and even the trance-dancer himself. Diseases thus come mainly from //Gãũwa and are also healed with his approval and usually by his medicines. Most trance-dancers regard themselves as '//Gãũwa's men' and attribute their powers of trance healing to this deity. The Naron term for a trance-dancer is *n≠a k"au* and that of a trance *//o !gei* meaning 'dead-awake' or 'half-dead' (Guenther, 1986). A different interpretation of Naron beliefs about the deities can be found in Barnard (1992).

The only other Naron category of supernatural agent are the *kwe /gau /gau*, which are obscure ghost-like beings which hover around graves (Guenther, 1986). According to certain informants these are the ghosts of the recently deceased who remain near the graves of their dead bodies for some time, before containing their journey to N!eri. Other Naron informants regard them simply as '//Gãũwa's things' which are not linked to the dead. These beings are considered to be harmless and frighten a man only when he crosses their path, for instance, by walking near a recently filled grave (Guenther, 1986).

Guenther (1986) noted that the more traditional Naron perception is that death is the end, although the soul can continue for some while as a *kwe /gau /gau*. This viewpoint is partly due to the well-known belief about the origin of death (i.e. the Moon and the Hare). Animals, trees and other plants all die forever. A Naron variant is that only men die forever and that women rise again because //Gãũwa likes women. The more acculturated Naron state that the dead go to N!eri, and visualize the place of N!eri in a wide variety of settings. These range from a vague, dark veld landscape with grass huts, to a formal town built in the European manner with double-storey houses, stores, schools, banks and trucks which are all at the complete disposal of Naron souls. Guenther observed that the pessimistic Moon-Hare myth is not consistent with beliefs about souls going to N!eri. Guenther concluded that consistency is not a feature of the Naron belief system; and that the blissful life envisaged with N!eri (i.e. stores with goods, trucks, health and good fortune) is the result of a culturally-derived Christian influence as well as the despair of the farm Naron at their currently degraded social circumstances, especially poverty. Prosperity in an afterlife, in other words, is greatly desired. Guenther (1986) was of the opinion that the 'death is the end' scenario was the original Naron understanding of death.

This understanding, nevertheless, does not discourage the Naron from supernatural beliefs about N!eri and the 'all too close for comfort' and potentially dangerous //Gãũwa.

The !Xõ

A more modern version is that the !Xõ creator (Gu/e) made the Earth and everything on it (Heinz, 1975). The old people, however, did not say how the sky, the Moon, the Sun and the stars were made, although they believed that the stars were the eyes of the dead. It is unclear whether Gu/e is a man or a woman, or whether he (if male) is married and has children. The balance of opinion seems to be that the creator is a man who has a wife and many children. Gu/e lives in a house whose locality is unknown. He may live somewhere in the big sky, or even far beyond the sky. The creator made /oa (an opposing force) which is a type of 'intermediate spirit' both good and evil. Gu/e made his own wife and children and the wife and children of /oa. The house of Gu/e is higher in heaven than that of /oa. Gu/e can also live in the mountains in the east or anywhere else on Earth. No one has ever seen Gu/e or his home (Heinz, 1975).

The creator is generally benevolent towards the !Xõ as well as animals and plants, although people die when he is angry. Gu/e is everywhere and is frequently addressed by means of prayer. The creator constantly looks at the people, with the sky being known as *Gu/e sa'aa* or 'God's face'. The children of Gu/e lead the people to the antelope (i.e. assist with hunting). It is likewise their job to collect the spirits of the people when they die (Heinz, 1975). These spirits work for Gu/e until such time as they are sent back to Earth to be reused (Heinz and Lee, 1978). The spirit of a small child works for Gu/e for a long period before Gu/e makes another person from that spirit. The spirit of an adult will only work for a short while before Gu/e uses the spirit again. It is usually /oa who causes a person's illness or even death. He sometimes takes a liking to someone and intercedes with Gu/e for that person's life. It is probably due to /oa that a person who is dying suddenly recovers. /oa also leads a hunter to water or towards an antelope. Gu/e becomes very angry when /oa interferes with life, with one wanting a person's death and the other objecting to this course of action. Illness is therefore the manifestation of a conflict between Gu/e and /oa. Drought is believed to be caused by /oa. This deity also puts certain evil thoughts in a person's head, resulting in murder or suicide. The spirit of someone who kills himself has no rest, since Gu/e was then not ready for him, did not call for him, or send his children to him. These unfortunate spirits must forever roam the veld in the form of whirlwinds. The !Xõ believe that women are very susceptible to the evil which /oa directs at them. Tension and illness in a band is often due to /oa, with women being more likely to be afflicted in this manner. Not all !Xõ men are equally powerful in fighting the forces of evil during a trance dance. Younger men in particular have to be shown how to overcome the evil of /oa (Heinz and Lee, 1978). Heinz (1986) indicated that some !Xõ believe that the spirit of a dead person can also be fetched by /oa. Heinz (1975) suggested that the !Xõ may regard Gu/e and /oa as one and the same being, without a clear distinction.

Neither the red stars nor the bright stars are beneficial. The !Xõ do not pray to the stars (Heinz, 1975). The !Xõ have no name for the Coal Sack, although Sirius is known as the 'Water Star' (Marshall, 1999). Arcturus is probably the 'Finish Fire' star for the !Xõ.

Venus is the Morning Star, while the Milky Way is referred to as the 'Backbone of Night' (Marshall, 1999). Marshall (1975) gives the !Xõ name for the Pleiades as *!xwe*.

The G/wi

N!adima is the remote supreme being and creator of the G/wi universe (Silberbauer, 1981). The universe consists of three regions: the sky country, the land itself and the below-ground underworld. N!adima and his wife N!adisa (the feminine form of his name) live in the upper region of the universe above the visible sky. The offspring of N!adisa include at least all the mammal species which occur in the central Kalahari and perhaps all the other species of fauna. It is thought that the deity's family, whose activities are largely unknown, are vegetarians (i.e. do not kill to eat), and that there is an abundance of food plants and water in the country where they live. Silberbauer referred to a difference of opinion between the G/wi in the central Kalahari and those living on commercial farms in the Ghanzi district, with the latter believing in an afterlife spent with the deity in the sky country. This more detailed knowledge has seemingly been influenced by Christian beliefs which have become attached to the original concept of N!adima. The Kalahari G/wi do not subscribe to an afterlife with the deity (Silberbauer, 1981).

N!adima set the Sun, the Moon and the stars on their courses (Silberbauer, 1981). The heavenly bodies are thought to be situated just above the highest clouds. It is only the land or the visible habitat (i.e. the space between the ground and the Sun, the Moon and the stars) which concerns the G/wi. Knowledge of the other two regions is fragmentary and uncertain. The underworld is inhabited by *//a:xudzi* ('angry things' or monsters) which react badly when certain social taboos are breached. These taboos include excessive and malicious lying, murder and allowing menstrual blood to fall on the ground. The *//a:xudzi* then come to the surface and harm people *inter alia* by spreading illness, causing people to become blind, or by instantly and violently killing people without leaving any marks. These attacks are directed, not at the perpetrators who broke the taboos, but at anybody whom the monsters encounter while on the surface. The underworld is also the place of residence of the *g/amadzi* or the 'postmortem spirits' (singular = *g/ama*) which leave the body after the corpse has been in the grave long enough to decay. The dead are not venerated by the G/wi and are feared. The spirits are extremely hostile to the living and will attack anyone who comes too close to a recent grave. The danger is greatest for those who loved and were loved by the deceased. Victims of these attacks are left blind and witless. Graves are thus given a wide berth by the G/wi. The spirits remain in the underworld forever, and gradually lose their power until they are harmless (Silberbauer, 1981).

N!adima made all life-forms and ordained the manner in which each life-form must live, breed and die (Silberbauer, 1981). He also ordained, within fairly broad limits, the relationships that exist between different life-forms, and between these life-forms and their environment. The workings of the environment and the order which exists in the environment are due to N!adima. He likewise created the cycle of the seasons and the weather systems. N!adima is not perceived to be the embodiment of love or good, but as the being who created an orderly and self-regulating universe. N!adima is only concerned with the survival of his creatures, where their quality of life is their own affair. Man and the other creatures must therefore determine their respective modes of life within the

constraints imposed by N!adima. The great god is the only being not subject to the will of others, while all others are subject to his will. N!adima has the freedom to act within the boundaries which he has set. He cannot make rain fall if the weather conditions are inappropriate, but will keep rain away for various periods (i.e. to 'dry up the land'), or will send floods at rare intervals if provoked or angered by a lack of appreciation by the G/wi. N!adima can assume several forms including the human shape. He very occasionally appears to the G/wi in dreams when he instructs men and women in the solutions to their problems, and shows them how to overcome adversity. N!adima is depicted in some accounts as jealous and possessive.

The G/wi do not know why N!adima created the universe, which is beyond their understanding (Silberbauer, 1981). Man is not central to the G/wi universe but is part of N!adima's plan where all creatures have an equal right to live. This fact is clear, since some of N!adisa's offspring are not human. The basis of resource management lies in the G/wi doctrine that the deity is the owner of the world. He ordained that man, as one of his creatures, can use the resources of the world to meet his needs for survival in reasonable comfort, and within the constraints of coexistence with N!adima's other creatures. The animals are also N!adima's creations and can only be killed for food, in self-defence, or to prevent an attack which is thought to be imminent. The same applies to invertebrates which are likewise protected by N!adima and may only be killed for use or in self-defence. A few animals are said to be the children of N!adima, as opposed to the children born to N!adisa in the sky country. The former can be recognized by their striking appearance and their privileged existence in not having to defend themselves against enemies, or expend any effort in finding food. Such animals are small and harmless and are not feared or hunted. An example is the crimson or velvety-red earth mite (Silberbauer, 1981). This species is evidently the Velvet Mite or Fluweelmyt (*Dinothrombium tinctorium*), which resembles a spider and preys on other invertebrates (Carruthers, 2000). The predator appears after rain in sandy areas, and is described by Carruthers as bright red in colour and looking like a velvet cushion. Plants, also forming part of N!adima's property, are protected by the same prohibitions on wanton destruction as the animals (Silberbauer, 1981). The patterns of plant life were established when N!adima formed the universe. N!adima can make the plants live and die but cannot otherwise change the set patterns of plant life for his specific purpose or will. The flowering and seeding cycles of plants are due to N!adima who sees to it that his creatures will have at least some food in all seasons. The yield of food plants in a certain season is in the hands of N!adima who cannot be influenced to make the yield more plentiful (Silberbauer, 1981).

Life is terminated by N!adima using natural phenomena such as disease or illness, wild animals, fire and drought (Silberbauer, 1981). His reasons for causing death are largely unknown. N!adima as we have seen can become angered by those who are disrespectful to him, including anyone who belittles or wastes what N!adima has provided. Two examples are a hunter who shoots more antelope than he actually needs at that time, and the overexploitation of specific food plants in a given area. N!adima can suddenly decide, for no apparent reason, that he dislikes someone who has lived in an exemplary manner, and end his life. Particular misfortune or even death due to an unusual accident is attributed to the intervention of N!adima (see below). One instance is that of a freak attack on a young

child by a lion. In the greater scheme of things, however, misfortune for one creature in the complex web of life made by N!adima, can be the saving of another creature. N!adima, as explained, is remote from his creatures. They cannot communicate with him in order to try and influence his behaviour in their favour. If N!adima provides assistance then it is because he wishes to do so. The G/wi thus have no prayers, hymns, worship, sacrifices or acts of celebration and praise for N!adima. The G/wi as we saw in **Chapter 3** address the Sun, the Moon and thunderstorms which are viewed as especially powerful creations of N!adima (Silberbauer, 1981).

There is another being known as G//amama or G//awama who is a type of lesser god (Silberbauer, 1981). The G/wi have no explanation for his origins. G//amama can take different shapes as he pleases and can make himself invisible. This hostile being has no special abode, although he lives everywhere and nowhere. He moves in whirlwinds and also amongst the stars in the sky, and sits with the people in their camp. G//amama is not all-powerful since he can apparently take life but not give it. His ability to manipulate natural phenomena is less than that of N!adima. G//amama possesses a 'generalized' evil which is found in small, usually invisible 'slivers' of wood or small arrows (*kxaog/wag//wa*) which he showers down on the band from the sky. These arrows enter the bodies of the women. The men are strong enough not to be directly affected, but pick up the evil from their wives with the evil spreading throughout the band. The people become increasingly irritable and numerous misunderstandings occur. Minor misfortunes become evident. The frequency with which G//amama is thought to launch his evil arrows is roughly in proportion to the frequency and extent of social interaction within the band. The risk is least when the band has separated to search for food and water and interaction is confined to an isolated household. G//amama is mean-minded and cunning and is aware that maximum damage can be inflicted when the people are later reunited and enjoying one another's company. The evil that G//amama unleashes is especially prevalent in autumn when the camp may contain 30 or more households. Food is plentiful and there is much talking, dancing and playing of games. 'Exorcising' dances (i.e. trance dances) are held three or four times a week at this stage to combat G//amama's evil. G//amama, besides sending arrows, also now and again sends diseases and other misfortunes. The G/wi, with the assistance of N!adima and through their own discoveries, are able to counteract this evil by using medicines and by holding trance dances. It was the 'great, old people' or *g//onkhwena* who made most, but certainly not all of the discoveries that the contemporary G/wi have as their stock of knowledge. G//amama also functions as a trickster (a term not used by Silberbauer). It is related that G//amama was bitten on the leg by a python and created a prominent, winding river valley and other land features in his great distress, while also being harassed by several different animals in revenge for some of the evil which he had done to them. The G/wi derive a great deal of amusement from this story in which G//amama is on the receiving end of injuries and indignities (Silberbauer, 1981).

The relationship between N!adima and G//amama is unclear (Silberbauer, 1981). Some of Silberbauer's informants were of the opinion that the two sometimes co-operate in causing the death of those whom N!adima has 'grown tired' of. Silberbauer commented that there is a degree of inconsistency in the notion that life can be given by N!adima and that G//amama is seemingly allowed to terminate life which belongs to N!adima. The G/wi

could only state that G//amama has lethal powers which he uses unless stopped by the various means devised by N!adima at the time of creation, and which have since been discovered by the G/wi themselves. A few informants had a vague concept of N!adima and G//amama as two components of one being. This was not a common perception, however, with most Kalahari G/wi perceiving the two to be separate and distinct entities. N!adima represents order, while G//amama is associated with evil and disorder. It is likewise not clear whether N!adima or G//amama is responsible for a misfortune which is not due to normal circumstances. G//amama is usually the culprit if the person recovers or is rescued. N!adima, on the other hand, is thought to be always successful. If the victim or *//ãũdze* does not die, then this is because N!adima changed his mind at the last moment. Treatment for an illness which unexpectedly fails is believed to be the result of N!adima 'preventing the medicine', i.e. denying its usual effectiveness. The G/wi do not believe in sorcery at all, either as a cause of disease or any other misfortune (Silberbauer, 1981).

The G/wi had the same belief in the great god, the Large Magellanic Cloud, the arrow and the three zebra of Orion's Belt, as already described for the !Kung (Thomas, 1959). The star in the centre of Orion's Belt is a male zebra which is flanked by his two wives. A star known as 'Walks-Before-the-Sun' is the Morning Star. This star, which is a different one from time to time, rises in the east just before the Sun and walks across the sky all day looking for shade. The Sun overtakes the star each day and scorches it. The people, while walking, can at least cut branches from trees as a shield or parasol to cover their heads, although there is no shade in the sky for the unfortunate star (Thomas, 1959). The G/wi think of the Pleiades (*!xwe*) as a group of little stars crowded into a small space (Marshall, 1975). Silberbauer (1981) refers to the Pleiades as *xwedzi*. Canopus is simply known as 'Star' which suggests that this name is a singular honour, implying perhaps that Canopus is the 'Star of Stars' (Marshall, 1975). Silberbauer (1981) gives the name of Canopus as *//xona*. Sirius is the 'Side Star' for the G/wi who describe this star as being by the side of Canopus (Marshall, 1999). Sirius, according to Silberbauer (1981), is called *g/aokhu*. Arcturus is evidently the 'Finish Fire' star for the G/wi (Marshall, 1999), although Silberbauer (1981) maintains that Regulus or */edzini* is the 'firewood-finisher'. Regulus only sets when the firewood is finished. Arcturus is the 'firewood-finisher-child' or */edzinig /wa* (Silberbauer, 1981).

The G/wi have no particular name for the Coal Sack or the Milky Way (Marshall, 1999). Silberbauer (1981), nevertheless, refers to the Milky Way as the 'night's backbone' or *!xais !hodi/wa*. The G/wi and the //Gana think of the Southern Cross and the two Pointers as 'Giraffe Eyes' (Marshall, 1999). The Pointers are male giraffe and the four stars of the Southern Cross are female giraffe. A half-G/wi and half-//Gana informant described alpha and beta Crucis as mother giraffe, and gamma and delta Crucis as daughter giraffe (Marshall, 1999). The Southern Cross as per Silberbauer (1981) is called *n//abedzi* meaning 'feminine giraffe' (as in 'they are big, like giraffes' eyes'). No folklore about the Southern Cross and the Pointers was evident for the Tshimbaranda !Kung, the Naron or the !Xõ (Marshall, 1999). Venus as the Morning Star is known by the G/wi as *!u:≠ono* (Silberbauer, 1981). The G/wi had no name for Venus as the Evening Star (Silberbauer, 1981). The G/wi pair Altair and Vega together, and call them the 'Steenboks' (Marshall, 1999). Altair is the female and Vega the male. Silberbauer (1981) in contrast refers to

Peacock (a bright star in the constellation of Pavo) as the female steenbok (*g≠eisa*), while Altair or *g≠eikxaoma* is the male steenbok. Orion is called *khwe g≠ẽi !ui* ('man shoots steenbok') (Silberbauer, 1981).

The G/wi, despite some knowledge of the night sky, have no great contemporary interest in the stars (Silberbauer, 1981). A few G/wi may perhaps still believe that the stars are the fires of the dead: a belief derived from the 'old people'. A second belief is that meteorites (meteors) are the grass torches carried by the deceased from one shelter (i.e. dwelling) to another as the dead visit each other. This social interaction is the same as that undertaken by the G/wi on Earth. The G/wi realize that certain stars and constellations come into view at the beginning of the various seasons. A 'celestial calendar', however, is only used for the timing of the male initiation school. The men know that the second phase of the school should commence when Sirius appears in the evening sky in spring. There is a further belief, not sustained in reality, that all female steenbok give birth when the Pleiades are in the evening sky (i.e. in early summer). These antelope are not seasonal breeders. The stars are not regarded as navigational tools, since the G/wi move around at night only in bright moonlight and only for short journeys when the usual daytime landmarks are visible. The stars are mainly used as indicators of changing weather and for the purposes of time-keeping at night. Forthcoming rain is evidently implied by especially crisp-appearing and bright-looking stars. This situation is possibly due to the influx of cold, moist air at altitude ahead of an approaching low pressure system (a depression) (Silberbauer, 1981).

G/wi shamans during a trance dance, amongst other things, remove evil and cure an illness known as 'star sickness' (Thomas, 1959). This disease is a mysterious and magic affliction which has no tangible physical symptoms, but together with evil, is brought to the people by the spirits of the dead. Star sickness can best be described as a psychological disruption which causes hostility, jealousy, anger and quarrelling, all of which disturb social harmony. The star sickness leaves the affected people during the dance, enters the bodies of the shamans, and is then shrieked (screamed) into the air thus going back to the spirits of the dead. The effective agent is the medicine found in the bodies of the shamans, which is warmed to supernatural potency (activated) by their vigorous dancing, the heat of the fire and the medicine songs (Thomas, 1959).

The G/wi separate day and night into 16 divisions (Silberbauer, 1981). Silberbauer observed that the divisions of the night are nearly as important as those of the day. The reason is that a G/wi camp is never at rest during the night. There is always someone who is awake: adding wood to the household fire, attending to a child, eating something, listening to a strange noise in the bush, or keeping watch if dangerous animals are in the immediate vicinity. The G/wi '24-hour clock' is given below:

- **!u:!xaisa** = morning-night or first light;
- **ghiu//xa://xa:** = burn (becomes) warm or dawn;
- **//aba n/i ≠'kwa** = light has emerged or sunrise;
- **/ama n/i //o** = sun has (become) warm or morning;

- **/ama n/i //xa:** = sun has (become) warm which is warmer than *//o*, or mid-morning/ forenoon;
- **k'woni** = midday;
- **g!ua** = mid-afternoon;
- **g//ua** = descend or late afternoon;
- **es wa haiswa** = she (the sun) is in the hole or sunset;
- **es n/i ≠'he** = she (the sun) has fallen or sunset;
- **//haosa** = dusk;
- **!xais n/i ha:** = night has come or late evening, until the zodiacal light disappears;
- **g//o: !xais** = big, proper night or after about 22:00;
- **g/as:s kje** = midnight stand (i.e. has arrived) or midnight;
- **!u:s n/i xao** = morning has cut or false dawn, when the eastern horizon begins to lighten;
- **!u:s n/i xao !xanakxi** = morning has cut closed-face, or when the stars begin to fade (Silberbauer, 1981).

The //Gana

The //Gana of more recent times regard Venus as the Morning Star, and refer to Canopus as the 'Big Star' (Marshall, 1999). One //Gana informant described the Coal Sack as 'God's Patch' and the Milky Way as 'God's Path'. The //Gana envisage the Pleiades, Canopus and Sirius as a constellation with the Pleiades as the wives of the two other stars. Achernar is the younger brother of Canopus and Sirius, and is simply known as 'Younger Brother'. Spica is called 'Pig'. The 'Finish Fire' star of the //Gana is very possibly Arcturus (Marshall, 1999).

The Hiechware

The Hiechware (Hietshware) of the eastern Kalahari were said to be 'well acquainted' with the stars (Dornan, 1917a). They had names for various constellations and believed that some of these constellations were animals. The only identified constellation was the Southern Cross, which was the 'Giraffe Star' or *gabee /khaine*. The first word means 'giraffe' and the second means 'star' (Dornan, 1917a). The two Pointers formed the head and neck of the giraffe when the animal was standing in a certain position (Dornan, 1921).

The Khoikhoi

Venus, Mercury and Jupiter

The Khoikhoi described the stars as 'the dots' or 'the points', i.e. those which stand in tufts (Hahn, 1881). The analogy here relates to the more arid regions of southern Africa where the grass does not completely cover the landscape, but grows in tufts. The stars, similarly, are seen to be grouped with bare patches of sky surrounding these objects. The Khoikhoi thought of the stars as the eyes or the souls of the dead. A celestial curse was the following: 'Thou happy one, may misfortune fall on thee, from the Star of my grandfather' (Hahn, 1881). The Khoikhoi stars were collectively known as */gamiroti* (Schultze, 1907

cited by Schapera, 1965). The Khoikhoi, according to Schultze, were best acquainted with Venus and Mercury (of all the stars). The closeness of the two bodies to the Sun, and their regularly alternating positions in the morning and evening sky, resulted in these celestial objects being constantly observed. Venus (*//khanus*) was known as 'the Forerunner' of the Sun (*ai!guns*), or as *aogura //hab* 'the star at whose rising men run away' (i.e. from illicit sexual intercourse). Venus as an evening star was recognized as the same celestial body as the morning star, and was then called the 'Evening Fugitive' or *!ui !kxoeb* because it does not remain in the sky for long. Jupiter was known, but was sometimes identified as Venus, except when seen 'in the middle of the sky' when Jupiter was called the 'Middle Star' or *//aegu /gamirob*. Mercury was the Dawn Star (*//goa /gamiros*) or the star which comes when the udders of the cows are once again filled. [There appears to be a typographical error in this case since */gamiros* should very probably be spelt as */gamiro**b***, i.e. 'star': (Hahn, 1881).] Mercury, interestingly, was not observed in the evening (Schultze, 1907 cited by Schapera, 1965). See **The Southern Sotho (Basotho)** above. Hahn (1881) gives a further name for Venus (*≠onob*), which means 'the man with the fingers cut off'.

De Grevenbroek, whom we have already met, described an incident which took place in the early years at the Cape (Schapera, 1933). The Dutch were at war with Gonnema the chief of the Kochoqua (one of the Khoikhoi groups) from 1673–1677. In July 1673 a punitive Dutch expedition left the Fort (later the Castle) and attacked the Khoikhoi settlement some distance away. A skirmish occurred with the Dutch driving many Khoikhoi sheep and oxen before them. The Khoikhoi rallied and attacked the Dutch, but were driven off by the cavalry. The Khoikhoi, according to de Grevenbroek, 'made a plan to be carried out at the first sight of the morning star'. The Khoikhoi split into four groups and stealthily crawled towards the Dutch on their stomachs. They rose up at a given signal and attacked the Dutch encampment. The Khoikhoi were seen at once and were driven off by musket fire. De Grevenbroek remarked that the Khoikhoi could soon afterwards have killed all the Dutch with impunity, had they attacked once more. A heavy rain suddenly fell at this time, accompanied by a violent wind, which incapacitated the Dutch who were encumbered by their packs and baggage. The Dutch were utterly exhausted and numbed with cold, while their muskets had been rendered useless by the rain (Schapera, 1933).

The Milky Way, the Magellanic Clouds, Sirius and alpha/beta Centauri

The 'gleam' of the Milky Way and the Magellanic Clouds reminded the Khoikhoi of the weak glow of the embers of a hearth fire (Hahn, 1881; Schultze, 1907 cited by Schapera, 1965). The Milky Way was referred to as *tsaob* or 'Ember'. The masculine and singular ending of this Khoikhoi word relates to the large and slender shape of the Milky Way. The Magellanic Clouds were known as *tsaora* or 'Embers', with the feminine and dual ending of the name reflecting the clumpy form and smallness of these celestial objects. Another name for the Magellanic Clouds was *xam ≠kxarakxa* ('the two lion testicles'). Sirius was the 'Side Star' or *!nam /gamirob*, while alpha and beta Centauri were known as 'the two eyes' (*mura*). The 'eyes of the lion', in turn, were called *xami di mura*. The last-mentioned refer to μ1 and μ2 Scorpii, more commonly described as Denebakrab or mu^{1} (μ^{1}) Scorpii and mu^{2} (μ^{2}) Scorpii. The two stars are an optical double and emit a blue-white light (Internet sources). An unidentified star mentioned by Hahn (1881) is 'the little daughter' or */gõaros*.

Orion, the Pleiades, Aldebaran and additional stars

Orion's Belt and the Sword were of significance for the Khoikhoi (Schultze, 1907 cited by Schapera, 1965). The three stars of Orion's Belt were the fugitive 'zebras' or *!goregu*. The hunter (ι) shoots his arrows, *θ* and *c* at Alnilam, the central and brightest star of Orion's Belt. These celestial objects are presumed to be iota (ι) Orionis (also known as Hatsya or Na'ir al Saif), theta (θ) Orionis and 42 Orionis (*c*) respectively. The Pleiades due to 'their thick cluster of stars' were called */hũseti* or */kxũseti*, which is derived from the verb */hũ* meaning 'to assemble'. A different name for the Pleiades was *≠ao /gamiroti* or the 'Hoar-frost Stars'. The latter term refers to the fact that the nights may be so cold by the time these stars appear that hoar-frost is found in the morning (Schultze, 1907 cited by Schapera, 1965). This statement obviously relates to the first rising of the Pleiades in the early morning in winter. A religious dance was held at the first rising of the Pleiades after sunset (later in the year), when prayers were offered to Tsui //Goab for rain (Hahn, 1881; Schapera, 1965).

A variant of the just-mentioned procedure was undertaken by the Hessequa (one of the Cape Khoikhoi) (Hahn, 1881; Schapera, 1965). As soon as the Pleiades were sighted above the horizon, the mothers lifted up their young children and ran to elevated spots, there to show these friendly stars to the children. The mothers taught their children to stretch their hands out towards the Pleiades. The people of the homestead assembled to dance and to sing according to the old customs of their ancestors. The chorus always sang: 'O Tiqua, our Father above our heads, give rain to us, that the fruits (bulbs, etc.), uientjes, may ripen, and that we may have plenty of food, send us a good year'. *Tiqua* is an early form of the name Tsui //Goab, while *uientjes* are edible veld food (i.e. the bulb of *Cyperus* spp. plants). The prayer clearly demonstrates that Tsui //Goab was regarded in this case as the god of the rain-giving clouds, and of the food-producing fields. The rising of the Pleiades signalled a new year for the Hessequa (Hahn, 1881; Schapera, 1965). Hahn (1881) referred to a number of Khoikhoi groups, who even in later years, still held a religious dance and sang at the first appearance of the Pleiades. The Pleiades, according to Hahn, were known as the 'rainstars' by the Khoikhoi. The Pleiades are enveloped by thunder-clouds in the rainy season. The start of the rains thus denoted a new year for the Khoikhoi.

Hahn (1881) and Schapera (1965) described a Khoikhoi myth known as 'The Orion Myth, or the Curse of the Women' which was associated with the Pleiades. It is related that the */Khunuseti* or */Khũseti* (the Pleiades) said to their husband: 'Go thou and shoot those three Zebras for us; but if thou dost not shoot, thou darest not come home'. The husband took his bow with only one arrow and did as advised. He missed his target and sat there, having failed. The lion stood on the other side and watched the zebra. The husband could therefore not go and retrieve his arrow to shoot once more. The husband could also not return to his wives who had cursed him. The husband sat where he was shivering in the cold night and suffering from thirst and hunger. The */Khunuseti* said to the other men: 'Ye men, do you think that you can compare yourselves to us, and be our equals? There now, we defy our own husband to come home because he has not killed game'. Hahn explained that the husband is Aldebaran (*aob*) and the */Khunuseti* are his wives. The husband's bow is π π Orionis, which is seemingly Orion's Shield or the Lion's Skin (π^1–π^6 Orionis), and which certainly resembles a bow. The husband's sandals (*//haron*) are ε and δ of the

Hyades, or more specifically epsilon Tauri (Ain) and delta Tauri (Hyadum11). His *kaross* is θ and γ of the Hyades. The first object is theta Tauri (evidently theta^{1} (θ^{1}) Tauri and theta^{2} (θ^{2}) Tauri) and the second is gamma Tauri (Prima Hyadum). The husband's arrow or ≠*ab* is denoted by '*i*, *d, c* Orionis' (apparently iota Orionis, theta Orionis and 42 Orionis). Another interpretation (instead of an arrow) is that of an arrowhead or *//naus*, which has *c* (42 Orionis) as the opposite end where the feather or *!ams* is fixed. The lion is alpha Orionis which is better known as Betelgeuse (Hahn, 1881; Schapera, 1965), or Sirius (in another variant of the myth) as per Hammond Tooke (1888). It is interesting to note that iota Orionis in the Schultze (1907) version is the hunter, which is not the case according to Hahn (1881).

Hahn (1881) goes to some lengths to derive the supposed original meaning of the word */Khunuseti*. He alleges, amongst other things, that the Pleiades could be viewed as 'the daughters' of Tsui //Goab. Both Tsui //Goab and the Pleiades come from the east and are linked in a religious sense. Hahn includes Heitsi Eibib in this scenario, since both Tsui //Goab and Heitsi Eibib have plenty of cattle which are the result of good rains. Hahn states further that the Pleiades, in a certain manner, represent a flock. Enquiries made by Hahn in Great Namaqualand (to the north of Little Namaqualand) revealed that */Khunuseti* had several meanings. These are: those who stand together; who are heaped; who stand together like fingers; who cluster together, and lastly, are the thorn-stars. The latter he explains as shrub-like acacia species which branch off like the fingers of a hand. Plants grow after rain, branches link to branches and leaves join to leaves. A second meaning of the word in the form */Khunuti* refers to 'branch', 'lineage' or 'family' (i.e. 'the daughters' theory just discussed). The information in this paragraph is provided purely for the interest of the reader, given that Hahn (1881) makes it clear that he is speculating about the original meaning of the said word. Hammond Tooke (1888) citing Hahn (1881) refers to the meaning of */Khunuseti* as 'offshoots or the stars of the offshoots'. These are the 'stars of the budding season or spring'; and also 'those who spring or shoot off from one stem, a cluster'.

Some further thoughts on the first Morning Star

Readers will have noted several references to a star preceding the Morning Star in this chapter. T.P. Cooper has suggested that the elusive morning star is possibly Mercury. This planet can appear in the early morning or evening sky along with Venus as a morning or evening object. The present author personally witnessed the described scenario, although in the early evening, on the 3rd of November 2011 near Durban. A faint but clearly visible Mercury was near and to the west of Venus. The 'pairing' of the two planets is obviously not always the case: **see Appendix A**. The anthropological literature in this respect seems to concentrate on the morning sky only, however. It follows that the sighting of the two planets in proximity to each other in the morning sky will be more noticeable in some years than in other years. We have already seen that the Southern Sotho (Basotho) and the Khoikhoi had some knowledge of Mercury in the early morning. This star (planet) was apparently not associated with Venus. A good example of the Mercury/Venus morning scenario occurred in mid-May 2011, albeit with the rare addition of Jupiter and Mars. The conjunction described was evident from about 05:00 until sunrise with Jupiter, Venus and

Mercury grouped together, and with Mars at a lower elevation and close to the horizon. The primary assumption is that African observers in previous times saw the two stars near to each other, although there is nothing in the anthropological literature to indicate that this was necessarily the case. It could well be that the relevant stars appeared in different parts of the sky. We do not have sufficient technical details to positively identify the unknown morning star. Callaway (1870) mentions a 'Zulu' star which rises before the Morning Star, and which is red in colour. As previously indicated, it is possible that Mars (as another potential candidate) is being described in this instance.

A related issue is that of a 'substitute' for Venus when this body was not visible in the sky as well as the incorrect identification of Venus. At least one writer (McCosh, 1979) believes that Mercury was sometimes mistaken for Venus in the early morning in the southern African skies of old. An alternative scenario is that Jupiter was at times identified as Venus, or that there was some confusion between Sirius and Venus. If one or more of these events was occasionally the situation, then 'Venus' may have had an extended 'season' or time-period as a morning star of significance. It would be interesting to closely examine the passage of Venus (as a morning star) as well as Jupiter, Mercury and Sirius over a considerable number of years, say 1600–1900, to determine any particular trends. The investigation should include occasions when Venus and Jupiter are visibly in conjunction. One example of an evening conjunction of Venus and Jupiter was on the 13th of March 2012. Jupiter was above and slightly to the west of Venus.

Pictorial and other representations of celestial bodies

A number of writers have stated that pictorial images of celestial bodies are to be found on rock surfaces in southern Africa. It is said, amongst other things, that certain San rock art may depict comets as well as meteors (specifically bolides or fireballs: **see Chapter 6**). Proponents of this line of thought include Woodhouse (1986; 1986a; 1992); Thackeray (1988); Thackeray and Knox-Shaw (1992); Fraser (2007) and Ouzman (2010). The last-mentioned author reviewed the currently available information on postulated San celestial rock art in South Africa. He was assisted by a technical advisor well versed in astronomy (T.P. Cooper). It should be stressed that these depictions are extremely rare, evidently exclude the Moon, the stars and the Sun, and represent a tiny fraction of all known San rock art in this country. Some of these images can perhaps be regarded as themselves possessing supernatural potency, as opposed to constituting mere representations. Ouzman discussed four San rock art sites in the eastern Free State in some detail. Ouzman also briefly referred to a site in the Waterberg (Limpopo Province) where a 'rayed circle' may represent the incandescent head of a comet, a meteor, or a fireball. The object was painted in close proximity to five human figures and is situated on the ceiling of a rock shelter. Such an elevated setting is a rare occurrence in San rock art. It is possible, as per Ouzman, that the 'rays' of the circle could represent the tassels of a bag or apron or the tail of a comet. Part of the painting, where a bag or apron ties (or the tail of a comet) would be visible, has unfortunately flaked off from the rock. Two other paintings, perhaps of comets, have been found in the eastern Cape. Ouzman also mentions a comet-like rock engraving or petroglyph somewhere on the border of South Africa and Botswana. The four rock art sites of primary interest are in the foothills of the Maloti (Maluti) Mountains in a

landscape dominated by sandstone rock shelters. The quantity, detail and diversity of the San paintings in the area is impressive and has attracted the attention of numerous rock art researchers over the years. Also evident in this locality, to some extent, is rock art painted by Africans, the Khoikhoi and even early white pioneers.

The first of the four San sites under discussion is a 25 m long sandstone overhang, which faces east and overlooks a deep perennial stream. This site contains more than 155 paintings on the walls. The paintings are grouped into five clusters and show antelope, a hive and bees as well as human figures in a variety of postures. An especially prominent feature is a linear arrangement which consists of an elongated serpent, to which a human figure is offering a jackal-like carcass. The serpent is surrounded by 19 eland. Five of the eland have extra legs, three exhibit nasal or oral haemorrhage, and one on the far right has a dewlap which has been rubbed smooth. A procession of 11 human and therianthropic (half-animal/half-human) figures can be seen above the serpent bearing items such as aprons, bags, bows, flywhisks, quivers and sticks. These figures are followed by a baying dog or jackal. Noteworthy is a sinuous 'thin red line' which stretches from (or to) the head of the serpent, passing through five of the therianthropes and six eland, before fading into the rock. A thicker white line is visible above the serpent in the form of a slanting and discontinuous (interrupted) streak which divides into two branches. The branches terminate in a red ball, each of which is surrounded by at least 20 alternating red and white rays. There are thus two 'rayed heads' in total. This depiction could be that of a bolide which splits into two highly visible fragments as it plunges towards the ground. Ouzman (2010) described this scenario as the 'serpent and bolide'.

The second San site, a day's walk south east of the first site, is a 60 m long and curved sandstone overhang facing north west, below which is a (now dammed) perennial stream. The remains of over 170 San rock paintings can be seen on the walls of the site. Two metres away from the bulk of the paintings is a painted cluster (of relevance here). Two eland are evident forming part of a San medicine or trance dance scene. Seventeen human and therianthropic figures are shown displaying postures and activities typical of a San medicine dance. At least three human figures clap with extended 'stiff' fingers. Two adjacent figures have an 'arms-back' posture indicative of an altered state of consciousness. Up to four figures lie face up, which is a common position for those in a deep trance. Below and to the right are two (partially preserved) human figures which 'jack-knife' at the waist. The latter represents the stance adopted when supernatural potency 'boils' in the stomach of a shaman. Shamans in this situation sometimes required dancing sticks to maintain their balance. The three central figures, one with hooves (a therianthrope) hold dancing sticks. These three figures, further, have in excess of 27 flywhisks which are artefacts exclusive to medicine dances, and which are used to sniff out and remove illness. To the left of the three figures are two cattle-headed therianthropes. Above the described scenario are two flecked or speckled and parallel red lines, slightly angled to the horizontal. These lines terminate in a red circle with a paler surrounding spread of halo-like light. The depiction in this case may be that of a fireball, which Ouzman termed the 'medicine dance and fireball'.

The third site of interest, almost a day's walk from the other two sites, is a roomy 30 m long and domed sandstone overhang, again adjacent to a stream. The walls of the overhang

were once densely painted, but have become marked by calcite deposits, leaving fewer than 50 paintings intact. Amongst the paintings is one of a particularly fat male eland and a bizarre pawed creature. Of significance are three therianthropes which exhibit very shortened or truncated fingers and bodies. Each figure has 'hairs' or 'feathers' on and off its body, suggestive of flight. The uppermost figure has a hoofed leg tucked under its body, and is identical to 'flying buck' which characterize San astral (trance) travel. Each figure has flywhisks, a quiver and sticks. One stick consists of a 'thin red line' fringed by 27 small white dots. Above the therianthropes is a red and white motif which consists of a discontinuous streak at a shallow angle to the horizon, and ending in a rayed and halo-like head. Ouzman suggested that this painting could be that of a fireball, and named the depiction 'flight and fireball'.

The fourth and final site is a 24 m long remnant of a rocky cliff, overlooking a wetland fed by a waterfall and a deep pool. The site faces south east towards the nearby Maloti Mountains. Over 90 San rock paintings are grouped at the western end of the site. The paintings include two red felines (cat-like creatures) chasing eight red human figures. Also shown are more than 20 yellow and white eland and 10 cloaked human figures. At the north eastern end of the site, 1.2 m away from the other paintings, are two motifs. One is a red and white therianthrope with at least three flywhisks, with arms held back, and with one tucked up foot transformed into a hoof. Immediately adjacent are 18 closely spaced red lines painted at a steep angle to the horizontal. These lines, at their upper end, divide into three streaks. A rayed and hollow red circle is shown at the bottom end of the lines. Ouzman referred to this site as the 'therianthrope and comet', since the steep trajectory of the lines as well as their discontinuous and diffuse nature are suggestive of comets rather than fireballs. The head in the painting is likewise small relative to the tail (i.e. like comets, but unlike fireballs which have large heads and small tails).

Ouzman described the four sites, all within an area of 35 km × 27 km, as the 'Heaven's Things' circuit, i.e. possibly some type of extended San 'cultural' centre. The four heavenly body paintings, interestingly, are sited in an intentionally separate and readily seen position away from the rest of the paintings, and always in close proximity to running water (an uncommon feature in the area). The paintings occur in a shamanistic context involving *inter alia* medicine dances, serpents, thin red lines and therianthropes; and at a deeper level evidently denote concepts of shaman supernatural potency, astral travel and transformative abilities. Large serpents are suggestive of symbolic water snakes (a common San theme). The thin red lines may refer to the path taken by shamans entering and leaving the spirit world (i.e. a navigational mechanism) when on an out-of-body journey in a state of trance. White microdots at the third site seemingly indicate supernatural potency. One theory, then, is that heavenly bodies can be linked to shamans and their activities. The rarity of such depictions could imply that only the most powerful of shamans were capable of painting certain celestial objects, or alternatively hallucinatory (mind-induced) patterns of light when in a trance. A second theory advanced by Ouzman (2010) is that depictions of supposed comets, fireballs and bolides may constitute an as yet unidentified theme in San rock art. A third option is that further San paintings of celestial bodies remain to be discovered, or are subject to disputed interpretation. A significant San painting of celestial objects exists, however, and forms part of the original Bleek and Lloyd manuscripts.

The water colour painting was reproduced in Skotnes (2010). The painting was made for Lucy Lloyd by !Nanni (an !Kung informant of the Bleeks) in May 1881 and depicts the 'Star Country'. The painting includes the Evening Star and its house; an area of rain and of fine weather; another star and its two houses; the young Moon; water and a road, and the rain's clouds which hide the stars.

An important rock art site in South Africa is the 250 km^2 Makgabeng Plateau, south west of the Soutpansberg in Limpopo Province (Namono and Eastwood, 2005). San, Khoikhoi and Northern Sotho rock art is common in this locality. It has been suggested that a major proportion of the rock art of Africans in South Africa (i.e. Bantu-speakers) is to be found on the Makgabeng Plateau. One particular site is of interest, namely: Dikgaatwane tša Basadi or 'Rock paintings belonging to women'. This site has finger-painted motifs which relate to the concerns of Northern Sotho girls and women specifically, as confirmed by Northern Sotho women informants. Of relevance here are solid, although irregular circles which depict the Moon or *ngwedi* (again confirmed by the women informants). The Moon as we have already seen is associated with fertility and the menstrual cycle, with the same connotation being applicable at the site in question. Other types of motifs include a variety of circles as well as half-circle and crescent shapes (Namono and Eastwood, 2005).

It has been claimed that certain geometric images in rock engravings, apparently in the North-West Province, depict *inter alia* a series of circular moons, which in at least one instance allegedly refer to the human gestation period of 10 lunar months (Sullivan, 2001). Another theory advanced by Sullivan is that the 10 moons could represent the gestation period of the Eland (*Tragelaphus oryx*) and that of cattle. It is a fact that this antelope has a gestation period of about 271 days (Smithers, 1986), while the average gestation period for cows is 280 days (Mönnig and Veldman, 1976). Sullivan likewise maintained that a grouped pattern of 28 carved dots or notches on a rock containing various other engravings, at the Wonderstone Mine near Ottosdal (south east of the Barberspan Nature Reserve), represents one lunar month. The same type of 28-notch rock engraving has been found at Driekopseiland in the Kimberley district and at Boskuil, south west of Wolmaransstad (Hall and Marsh, 1996).

Driekopseiland is a renowned rock engraving site with a multitude of engravings, especially geometric images. Sullivan (2001) referred, amongst other things, to a wheel consisting of three concentric circles divided into two circles of 13 and 28 sections respectively at Driekopseiland. Sullivan believed that the 13 segments were applicable to the number of lunar months in a traditional calendar year, while the 28 segments relate to a lunar month. Several engravings could perhaps be said to resemble the Sun or a star. Sullivan noted that cupules (round holes) are found in rocks at various engraving sites in North-West Province. Sullivan described one particular site where there are seven cupules on the flat upper surface of a triangular-shaped rock. Sullivan observed that seven is a prime Moon number which is 'recognized internationally' as a ritual or sacred or good-luck number. Sullivan also suggested a lunar connotation in terms of a Driekopseiland rock engraving, which is possibly of the split hoof of animals such as cattle, but which may represent two half-circles or two half-moons. Sullivan proposed that this type of engraving denotes or is synonymous with 'the moon goddess'. These, and other similar issues, are explored in

Sullivan's book. A number of Sullivan's concepts are based on the philosophy of Credo Mutwa. Not everyone agrees with Mutwa, however.

Tellinger and Heine (2009), like Sullivan, reproduced photographs of rock engravings from different parts of South Africa. An alternative explanation for the seven cupules on the triangular-shaped rock (mentioned above) was put forward by these two writers, where the cupules were described as possibly constituting 'an intricate sundial'. The authors cite Sullivan for this information. Tellinger and Heine, further, discuss two engravings in the vicinity of Mashishing (Lydenburg). The first engraving consists of three parallel rows of neatly drilled holes in an elongated rectangular shape. The second engraving is of two slightly curved although parallel rows of holes, again with an elongated rectangular shape. Tellinger and Heine speculated whether the holes could be some kind of calendar linked to the stars, the planets or the Moon. It is not impossible, nevertheless, that a parallel series of small holes made in horizontal or slightly inclined rock surfaces may have been designed for some type of intellectual game (perhaps resembling chess) played with sticks, feathers or small stones. A particular engraving at Driekopseiland is said by Tellinger and Heine to be that of a snake (serpent) with a horseshoe or ohm (Ω) shape. The snake is inside a pentagon with a dot above the pentagon. The dot, according to Tellinger and Heine, could represent a star such as Sirius, or some other star of cosmological significance. The snake, the pentagon and the star are claimed, as per the two authors, to be associated with the creation and the divine in ancient African cultures. Also reproduced in the book by Tellinger and Heine (2009) is a photograph of a five-pointed star-like engraving (once more with an alleged divine association); as well as a photograph of the half-circle or half-moon engraving discussed by Sullivan (2001). Tellinger and Heine appear to a greater or lesser extent to be adherents of the Sullivan school of enquiry, and are thus believers in certain hypotheses put forward by Mutwa.

It can be seen from the three preceding paragraphs that individual perceptions of phenomena often vary. Theories may rise and fall, and there is seldom complete certainty. What is always necessary is an informed and sober analysis, backed by logic and the marshalling of facts. One may disagree with the findings of a given theory and yet respect the academic rigour which accompanies the explanation thereof. The absolute minimum requirement, then, is a cohesive argument and not a hurried or 'emotional' opinion. Care must be taken not to convert wishes or assumptions into conclusions. 'Gaze and guess' scenarios are likewise unacceptable.

Beaumont (1973) briefly described a baboon fibula dated *circa* 35000–36000 BC, which although fractured at one end, has 29 notches along its length. The fibula was retrieved from Border Cave, a well-known archaeological site in the Lebombo Mountains in north eastern KwaZulu-Natal adjoining Swaziland. Warner (1996) referred to the bone as a tally-stick and suggested that the 28 spaces between the notches, or with the outermost notch functioning as an attachment for a piece of string, may have served as a lunar calendar. The notches could of course be purely decorative, or have some other ritual purpose. Beaumont (1973) stated that very similar calendar-sticks made of wood were apparently still in use (in the 1970s) by some San in Namibia. Several other animal bones as well as

fragments of haematite (red iron ore), with a varying number of notches, have been found at different archaeological sites in southern Africa over the years (P.B. Beaumont).

Lagercrantz (1973) discussed the use of tally-sticks and similar devices in Africa generally. The Moon marked the passage of time for the Xhosa, who evidently counted the days by means of notches on a piece of wood. The Zulu used notches on a wooden tally-stick *inter alia* to decide how many days a given journey or expedition would take (or had already lasted). The Sotho did likewise to keep track of how long they had been employed (seemingly by white employers). The Letsoalo, a Northern Sotho people, used the same procedure as a monthly pregnancy calendar, i.e. to establish how long it would take before a baby was born (Lagercrantz, 1973). Lagercrantz (1968–1969) observed that Zulu men used notched sticks because it was regarded as a woman's privilege to tie knots in a piece of string as a recording instrument. A Venda custom was to cut notches in a stick in order to keep an appointment some days hence (Stayt, 1931). The number of notches was equivalent to the number of days prior to the appointment. A notch was cut off each day.

It seems that tally-sticks were used by the Khoikhoi to count the days in many parts of the Cape from the first half of the 19th century onwards (Lagercrantz, 1973). Certain Khoikhoi made use of weekly calendars, each with seven holes and a movable peg. Such calendars were introduced after the Khoikhoi had begun to work by the day for the white population. The name of the device was the *bē. kgye hais* or 'week tree', which was derived from the Dutch word for a week (*week*) (Lagercrantz, 1973). Schapera (1965) described the Khoikhoi tally-stick or weekly calendar as consisting of a thin flat piece of wood about 10 cm long and 2 cm wide. Seven holes were burnt in the wood. One end of the stick was secured by means of a leather string. The other end of the string was inserted into one of the holes to indicate a particular day. The upper end of the string was tied to the necklaces of the women, while the men carried the stick in their hatbands. The calendar, as per Schapera, was known as *bekgye hais* or 'week wood' (from the Dutch word *week*). The Khoikhoi in the Kuruman area in the early years of the 19th century kept a careful account of each day by cutting an additional notch in the 'notched tallies' which they always carried around with them (Lagercrantz, 1973). When the tally was full the information was transferred to another tally on which certain notches represented weeks or months. The Khoikhoi in this manner kept an accurate record of the progress of time for short periods, sometimes extending for several years. Lagercrantz (1973) noted that a museum in Prague has 'an elegant' Khoikhoi weekly and monthly calendar with 38 holes. The holes can be divided into two groups of 7 and 31 holes representing a week and a month. Lagercrantz believed that the Zulu, Venda and Letsoalo tally methods were fully indigenous and were not due to external influences, unlike the Khoikhoi, the Sotho and perhaps the Xhosa. Lagercrantz (1973) recorded the historic use of tally-sticks in South Africa for a variety of general counting purposes. These included keeping a record of the number of sacks of maize stored in a hut by means of notches cut on the door-post of the hut. This method was used by the Zulu (Lagercrantz, 1973). Tally-sticks were a temporary device and were usually discarded after they had served their purpose (Lagercrantz, 1968–1969).

Some people in southern Africa used body markings to depict heavenly objects. Ten Rhyne (an early Dutch visitor to the Cape) stated that the Khoikhoi commonly wore ornaments on

their heads, or shaved the hair on their heads in the shape of full moons, crescent moons or stars (Schapera, 1933). Earthy (1924), in turn, discussed body incisions in Mozambique. The Chopi and others depicted the Moon on their bodies. A more or less circular-shaped incision was made by the women representing, according to the design, one of the four quarters of the Moon. Such incisions were made either on the forehead, or on the right cheek, or on the inner part of the left arm just below the elbow. It was previously the custom for young girls to fast in winter during the period between the disappearance of the old Moon and the appearance of the New Moon. This custom was known as *ku vonekisa tentombi*. The virgins were required to fast because the old Moon had died. It was at this stage that incisions depicting the Moon were made by the women. The described custom was once undertaken by the Chopi, the Lenge and the Shangaan (Tsonga). A special moonlight dance (*xingombelo*) survived until more recent times, which was very popular with the young men and young women. A star-shaped incision referred to as an *ngezi*, *ntsania* or *nkenia* was sometimes made above the knee by the women. Young men made an incision on their arms when they went out courting, although these incisions generally represented the Moon. Incisions were not necessary for children. A round spot was instead cut in the hair of children to depict the Moon. A symbolic representation of a falling star or *yinzalama* in the form of an incision was made on the forearm in a line with the hand, apparently by the women. Falling stars were both dreaded and revered. The Muyanga (a clan or sub-group of the Chopi) in the south eastern part of Mozambique had the Sun as their totem (emblem or mascot). The name, *Muyanga*, refers to the radiant energy of the Sun. The Muyanga, in the past, made incisions in the skin on their backs which represented the rays of the rising Sun (Earthy, 1924).

There is clear evidence of celestial influences in traditional beadwork and home adornment in parts of southern Africa. An earlier procedure in Lesotho was to paint the sign of a half-moon and phallic triangles on the walls of huts in order to express a desire to have many children (Laidler, 1938). The rationale was that the Moon was linked to fertility. The paintings were seemingly of the *Litema* variety. *Litema* is a Southern Sotho word which describes the mural decorations applied by Southern Sotho women to the outer walls of homesteads in Lesotho and the Free State (Beyer, 2008). These geometric decorations consist of engravings, mural painting, relief mouldings and mosaic. Contemporary patterns resemble objects from the natural world such as ploughed fields, the heavens (sky) and plant and animal life. Motifs found on present-day articles and traditional Basotho blankets also serve as sources of inspiration for several designs. The current designs represent aspects of celebration, ritual and initiation. Beyer (2008) provided photographic evidence of at least one example of a five-sided star as well as instances of multi-sided stars. Leeuw (2007) described some contemporary wall murals at Tswana households, which in celestial terms, concentrate on the Moon (*ngwedi*) in the shape of a small circle. The Moon, according to Leeuw, represents a woman (the wife) who is thought to bring 'light to a home', although the light is not as intense or as scorching as the Sun (i.e. it is a much more gentle light). This light is linked to happiness *inter alia* because children can play safely outside at night during Full Moon. Children happily at play create harmony which is a sign that all is well. A wall mural (*mokgapho*) of the described pattern also includes a vertical line or pillar (*pinagare*) denoting strength, and represents the head of the household.

Broster (1967) examined the rich heritage of Xhosa beadwork. Of interest here are examples of throat band necklaces and beaded medicine bottles which display various motifs including stars. Broster also referred to a type of small skirt with symbolic beadwork which is worn by young, recently married women. A young woman whose beads state that cattle have been paid for her (in terms of *lobola* or 'bride price' or 'bride wealth') has great prestige. Further, the greater the *lobola* paid (number of cattle), the greater is the honour due to the woman. In beadwork symbolism, such cattle are represented by stars or flowers on the aforementioned skirt. Additional examples of star patterns in ornamental beadwork are to be found amongst the Southern Ndebele (Mashiyane, 2006). One instance is where a boy in his teenage years (known as an *umsegwabo* or *ugwabani*) receives a rectangular piece of artwork (*isifutjana*) from his girlfriend. This article, made entirely of beads, is designed to be worn on the chest on social occasions. The beadwork usually has a white ridge around the outer edges. A pattern in the centre sometimes has the shape of a star. Other smaller shapes flank the star. It is common to have additional small supporting designs to enhance the overall attractiveness of the article. The remainder of the background is made of black beads or beads of any suitable colour (Mashiyane, 2006). Xhosa women, while making pots in previous times, often incised linear decorations of the 'sickle' (crescent) Moon as well as chevron patterns on the outer wall of the pot, about 5 cm below the rim, when the clay was still soft (Gitywa, 1971). A pointed stick was used for this purpose.

Breutz (1969) discussed the important role of the *ndoro* shell in the Shona (Zimbabwe) culture. This object is the base of a conch sea-shell (Huffman, 2007). The species is possibly the Hebrew Cone (*Conus ebraeus*). Portuguese merchants from the 16th century onwards traded large quantities of the shells in southern Africa, and subsequently introduced porcelain and ceramic replicas of the shell. Later manufactured examples even had factory-stamp numbers on the back of the replica. It would seem that the replica, at least, was not uncommon in the African interior (Huffman, 2007). The shell was linked by the Shona to Moon mythology, along with the medicine horn of chiefs (Breutz, 1969). It is related that the use of such objects and the construction of a variety of towers to reach the Moon, constituted attempts to make use of the 'rejuvenating power' of the Moon. The central theme is that a king or some mythological figure tried to reach the Moon by building a tower which collapsed. The king succeeded only in breaking off a piece of the horn of the New Moon. This horn was the magic horn which gave the king or chief his power. Sotho-Tswana chiefs strongly believed in the magic horn and its medicine. The horn was only given to the chief and one or two of his nearest male relatives, as well as to a high-ranking medicine-man or *ngaka* (plural = *dingaka*). Those in possession of the horn could not be bewitched and would die a natural death. Hurutshe (Tswana) informants interviewed by Breutz stated that the ordinary people also had these horns for protection (clearly an imitation made by the medicine-man). Others in southern Africa likewise believed in the powers of the horn and the *ndoro* shell. The Swazi medicine-man (*inyanga*) wore the magic horn and an imitation *ndoro* shell around his neck (Breutz, 1969).

Harding (1964) confirmed that the manufactured porcelain shells were still to be seen, although rarely, in Swaziland in the early 1960s. Harding indicated that the shells were coarser and thicker than those she had seen elsewhere in Africa, and that the shells came from the (then) Lourenço Marques (now Maputo). The shells observed in Swaziland

appeared to be of 'very recent manufacture'. Harding was informed that the shells were only worn by Swazi diviners (both male and female); and also that only female Swazi diviners in training wore the shells. Harding (1964) noted two instances of the shells being worn in Swaziland, where the female diviner wore the disc around her neck in the middle of a string of beads. Laidler (1937), in turn, recorded the presence of the *ngogo* shell (note different spelling) amongst the Southern Sotho.

The directional orientation of settlements and other structures in South Africa

Snedegar (2007) suggested that sites of primary cultural significance in South Africa should be investigated to determine whether there is any evidence of cardinal directional orientation with regard to the heavens. Snedegar referred to Mapungubwe Hill as one such site. Mapungubwe is a prominent flat-topped sandstone hill near the point where the borders of South Africa, Botswana and Zimbabwe meet. Mapungubwe was possibly the first true kingdom in South Africa during the Iron Age, and had established trade links with a number of countries outside Africa (Huffman, 2007). This site, according to Snedegar, should be examined to establish whether any structures on the hill are aligned, for instance, in the direction of sunrise and sunset at the two solstices. An alignment with the rising of Canopus is another potential avenue of investigation. It should be stressed, nevertheless, that celestial orientation in buildings and structures will only be apparent if the heavens were thought to be of considerable importance and indeed central to cultural beliefs. The present evidence does not seem to support such a conclusion in South Africa. It follows that care must be taken in ascribing any supposed heavenly orientation to buildings without taking obvious site-specific and other factors into account.

It appears that the Khoikhoi regarded east as a direction of significance, but whether this is of cosmological origin is debatable and depends on individual interpretations of conflicting information provided by the old writers in the Cape and Namibia. Earlier reports by anthropologists such as Samuelson (first edition: 1929; second impression: 1974), Krige (1950) and Shaw (1974) referred to a definite easterly orientation of homesteads for the Zulu and certain other African groups in South Africa. An extensive research programme concerning Zulu settlement patterns (archaeological, historical and contemporary), however, has revealed that slope and not cardinal direction is the primary determining factor in the customary alignment of rural households in KwaZulu-Natal (Maggs, 1988; Maggs, 1995; Maggs and Ward, 1995; Maggs, Oswald, Hall and Rüther, 1986 and Mack, Maggs and Oswald, 1991). Homestead alignment for the Nguni is measured by (a) the orientation of the entrance to the central cattle enclosure, (b) the position of the great hut or *indlunkulu* (the residence of the main or principal wife) in relation to the stock enclosure, and (c) the concentration of huts in the shape of a ring which encircles the cattle enclosure (i.e. the spatial relationship between the huts and the enclosure). It was established by the researchers that the entrance to the cattle enclosure (the foremost measure of orientation) traditionally faces either upslope or downslope. An *upslope* alignment was determined in the interior grasslands of KwaZulu-Natal for Late Iron Age settlements built of stone. A *downslope* orientation, in contrast, was evident in later (historical) and contemporary settlements in the savanna areas of KwaZulu-Natal. These two findings were confirmed by

depictions of homesteads in Zulu rock engravings dating from the 16th to the 19th centuries, and in a few cases extending to the 1950s. The engravers frequently regarded rock surfaces as topographical models or representations of the local (residential) landscape, complete with slopes and other terrain features.

An easterly orientation, either due to long-established custom or with regard to the rising Sun, *appears* to be relevant in some other parts of southern Africa. Swazi villages in previous times, according to Marwick (1940), typically faced east if the site conditions permitted such an orientation, failing which, the village faced down the slope. Kaschula (2002) stated that Xhosa dwellings, in the old days, were 'normally positioned' to face the rising Sun. Granger, Hall, McKenzie and Feely (1985), interestingly, investigated Iron Age settlements at 43 sample units in five different landscape types in the Transkei. Granger et al. found that 73% of the 62 identified settlement sites were on east-facing slopes, and that in 89% of cases these slopes had a gradient of less than 15% (8º). One significant factor which must always be considered in the eastern parts of South Africa especially (with a generally broken terrain at varying altitudes) is the percentage of slopes in a given area which face a particular cardinal direction. This will obviously affect settlement patterns and hence orientation: the implication being that a 'false reading' may result. Ashton (1967), presumably with reference to the Lowlands of Lesotho, indicated that where possible the principal dwelling huts in a typical village face east to catch the morning rays of the Sun, and to avoid the prevailing cold westerly winds. The importance of rugged terrain in determining settlement patterns is clearly demonstrated in the Lesotho Highlands since most of the high altitude villages are situated on the northern slopes, both for maximum insolation and for protection against the cold, southerly winds in winter (Boshoff, 2005). Fuggle (1971) working in the Marakabei Basin confirmed the northerly orientation of homesteads, and noted that virtually all the households in his study area were closely grouped together along the mid-slopes.

At the opposite end of the spectrum are aggregated settlements on fairly level terrain, some of which are quite large, as for the Tswana. Hammond-Tooke (1993) in discussing Tswana settlements observed that a traditional Tswana village (hamlet) or town was built up from small groups of related homesteads arranged in a circular pattern. The component households all faced inwards towards a central open space. This open space contained the *kgôtla* or meeting place of the men, as well as one or more cattle enclosures and a shelter against the weather. Bigger villages consisted of several or many such hamlets, which were separated from each other by lanes or roads. The same nucleated settlement pattern was evident during the Later Iron Age. No cardinal orientation for Tswana settlements was identified by Hammond-Tooke (1993). Reproductions of rock engravings showing typical Tswana homesteads including huts, courtyards and cattle enclosures can be found in Maggs (1995).

The layout of Venda settlements is similar to that of the Tswana, although strongly modified by the forested slopes of the Soutpansberg (Hammond-Tooke, 1993). Venda chiefs in the past built their impressive stone-walled capitals on the southern slopes of the Soutpansberg. Such structures were modelled on those of the Zimbabwe complex further north. Within the village, each family lived in its own walled homestead with the dwelling huts and store

huts arranged around a courtyard (Hammond-Tooke, 1993). Du Plessis (1945), in a study of Venda settlements, found that a good defensive position combined with fertile soils was of primary significance in previous times. Especially favoured were the tops of hills and the upper slopes of mountain-sides (particularly below cliff faces), all with good visibility. Settlement in forested terrain was the next best option if no such sites were available. Du Plessis (1945) did not mention any cardinal alignment of Venda settlements. Stayt (1931) was likewise silent in this regard. Discussions involving the present author and several archaeologists who have worked in the Venda area did not reveal any evidence of a specific cardinal orientation in Venda settlements generally.

Mention should be made of a very controversial theory that significant solar and lunar directional orientation can be determined in a stone ruin known as the Dying Sun Chariot Temple and associated ruins near Carolina. The background to this theory was explained by Hromnik (1981; 1996; 1999). Fierce academic debate has ensued regarding Hromnik's claims. The theory is briefly outlined in Tellinger and Heine (2009) and in Wade (2009). Possibly even more controversial are claims that a set of granite rocks on the edge of the Drakensberg escarpment near Kaapschehoop in Mpumalanga has a cosmic orientation of some antiquity, with special reference to Orion's Belt. The site has been named Adam's Calendar by the investigators concerned. See Tellinger and Heine (2009) for a more detailed description. This theory has not found general acceptance in South Africa. A separate theory altogether, by another investigator, is that certain dolerite rocks at Boomplaas in the Mashishing district are of celestial significance. There are multiple engravings on the rocks at this site. It is stated that one set of engraved rocks is aligned to Orion's Belt at the summer solstice, while a second set of engraved rocks is aligned to Orion's Belt at the winter solstice. Other engravings are said to show Sirius and the phases of the Moon (the Robmilne website, accessed on the 23rd of August 2011. See http://robmilne.com). One early report on rock engravings in the (then) Lydenburg district can be found in Pyper (1918).

Riddles and other expressions linked to the heavens and the stars

The Northern Sotho

- A Tlôkwa riddle reads: '*My mother's wooden dish and my father's are equal*'. **Answer:** 'Heaven and earth'. A second riddle is: '*The black ox is found everywhere*'. **Answer:** 'The sky'. Two further riddles are: '*I spread my corn in the open and found it missing the following day*' as well as '*I spread a little seed of plant on a rock and could not find it the following day*'. **Answer:** 'The stars' (Nakene, 1943).

- Further Northern Sotho riddles concern the size of various objects. These include: '*The heads of father and mother are equally large*' as well as '*The wood dishes belonging to mother and father are equally large*'. The **answers** are respectively 'The Earth and heaven' and 'Heaven and Earth'. Another riddle is: '*The pitchforks of MmaMašilo are equally big*'. **Answer:** 'Heaven and Earth'. Likewise: '*The blanket belonging to father and mother is equally large*'. **Answer:** 'The Earth and the sky' (Makopo, 1989). Also relevant is: '*The land for sowing of the mother; the scarecrows are with her and they are both the same size*'. **Answer:** 'A child of the heaven and the Earth' (Endemann and

Hoffmann, 1927). A different riddle reads: '*I take an oath of sleeplessness*'. **Answer:** 'A child of the stars' (Endemann and Hoffmann, 1927).

The Southern Sotho (Basotho)

- One Basotho riddle reads: '*Bedding skins of equal length and breadth*'. **Answer:** 'Heaven and earth'. A further riddle is: '*Flowers of a big cluster of reeds*'. **Answer:** 'The stars' (Sesotho Online: Proverbs and Idioms (Maele) & Riddles (Dilotho) website, accessed on the 26th of December 2010. See: http://www.sesotho.web.za/ref1.htm.) Another riddle clearly related to the first riddle is: '*The spread out hides are equal*'. **Answer:** 'Heaven and earth'. Also of interest is: '*Where does lanky-horse get so many bones from*'. **Answer:** 'The stars, as the white bones of the skeleton of some legendary horse' (Norton and Velaphe, 1924). A clearly more modern expression is: '*Just be careful, otherwise you'll see Jupiter and its satellites*', which implies that the person is inviting misfortune (Ambrose, 2009).

- A Basotho proverb is: '*A man is the sky, he covers what he has seen*'. The explanation is that men are supposed to be secretive and keep things to themselves. A related proverb is that '*The sky is overcast*'. The meaning here is that there are those in whose presence certain things cannot be said. As clouds prevent sunshine, so the presence of such people prevents free speech (Mokitimi, 1997).

- Part of the praises of Jonathan, a grandson of Moshoeshoe I or Moshesh were: '*He who gets round the wild ox can get round the Zulu (or the sky)*' (Norton, 1921).

The Tswana

- One Tswana (BaKxatla, Kxatla or Kgatla) riddle is: '*Tell me something, tell me what are two milk-sacks which are the same*'. **Answer:** 'It is Heaven and Earth'. Another such riddle is: '*Tell me: I spread out sprouted corn in my yard, when I woke up I could not find it*'. **Answer:** 'It is the stars'. A third riddle reads: '*Tell me: paper money, God knows how to write*'. **Answer:** 'It is the stars'. A fourth riddle is: '*Tell me: a black garden with white corn*'. **Answer:** 'It is the sky and the stars' (Schapera, 1932).

- A further Tswana riddle states: '*The dress of the painter is a myriad patterns*'. **Answer:** 'The sky and the stars' (Leeuw, 2007).

The Tsonga

- One of the praises of Nwamantibyane, a Tsonga chief in Mozambique was: '*Bahete! O chief! You shield us as heaven! The marks of this shield are like the stars!*' (Junod, 1927).

- A Tsonga riddle is: '*My relatives are numerous*'. **Answer:** 'The stars' (Junod and Jaques, 1936; Hammond-Tooke, 1993). The same response is given for: '*Chickens how numerous*' (Junod and Jaques, 1936).

- '*The stars are white*'. **Answer:** 'You eat alone, you grow fat' (Junod and Jaques, 1936).

- '*The stars are far away from each other*'. **Answer:** 'The children of a woman eat and pinch each other' (Junod and Jaques, 1936).

- '*The thing which made Heaven and Earth, what is it*'. **Answer:** 'Nature' (Junod, 1927; Junod and Jaques, 1936). (**See Chapter 2** in this regard.)

- '*The thing which (the one who) has pierced our mouths will give us food*'. The explanation is that: 'When famine has come people must not lose heart, because the thing that created them on earth will take care of them'. A similar expression is: '*Heaven never dies, only men do*'. 'In times of drought, do not give up ploughing, because rain will come again one day' (Junod and Jaques, 1936).

- '*Brother, remain, Heaven!*' 'When a man has gone through great trials, when he has lost all his dear ones, the VaTonga use this very strange expression: "Remain, Heaven" '. A related statement is: '*Heaven (or frost) has fallen on me*'. 'I am in great distress'. Similarly: '*Heaven has forsaken me!*' 'When a man feels the pangs of extreme grief, he expresses his feelings by these words'. Another observation reads: '*Laugh, Heaven sees you!*' ['*Others add: It is the death of a little calabash, which has died with all the seeds within it*'.] This is a rebuke to a man who laughs at a barren woman who was born with death in her womb. Heaven is directly implicated here (Junod and Jaques, 1936).

- '*No man can fight with Heaven!*' Heaven in this instance refers to lightning or the fire from Heaven. The forces of nature cannot be resisted or overcome by man. In similar vein is the following: '*If you do a wrong deed, you will be struck by Heaven*', which is a threat used by parents against their children. Likewise: '*Red (or white) garments attract Heaven (lightning)*' and '*Heaven has killed the chameleon*'. The explanation in the second example is that the chameleon must be killed because the animal is the lightning's food (Junod and Jaques, 1936).

- '*What is it over there*'. **Answer:** 'That which goes right up to Heaven', i.e. a very long stick (Junod and Jaques, 1936).

- '*The little bird takes grass and lays its eggs in the sky*'. **Answer:** 'You have *loboloed* a girl with money and this money is all spent by her father (you cannot get it back)'. Alternatively: '*The little bird moves an egg and lays it in the sky*'. **Answer:** 'You have married a young woman and she is expelled by her mother-in-law' (Junod and Jaques, 1936).

- '*The one looking above*'. This term was applied to a man who always walked looking at the sky (Junod and Jaques, 1936).

The Xhosa

- One Xhosa riddle concerning the sky is: '*I have a field of mine; it is green. The eye gets finished without it having got finished (i.e. the eye cannot take it all in)*'. **Answer:** 'It is the sky' (Sobukwe, 1971). It is indicated here that the Xhosa do not differentiate between green and blue. Another riddle with the same response is: '*I have a person of mine; he does not cry without first having covered his body*'. Likewise: '*I have a person of mine; he is standing above; he carries a handsome man and a beautiful lady; he is not holding on to anything; but he does not fall*'. The answer again is 'The

sky'. A variant is: '*With blankets of mine; they are equal*'. **Answer:** 'It is the sky and the earth' (Sobukwe, 1971).

- Further riddles are as follows. '*I have a field of mine; it is big; only sorghum is planted in it; there is one grain of maize*'. **Answer:** 'The field is the sky; the corn is the stars; the grain of maize is the moon'. Similarly: '*I have a field of mine; it flourishes by night; it has one pumpkin*'. **Answer:** 'The field is the sky; the pumpkin is the moon' (Sobukwe, 1971).

- There are several Xhosa riddles relating to the stars. One riddle reads: '*I have things of mine; there is no one who can count them*'. **Answer:** 'It is the stars'. Another riddle with the same answer is: '*I have a field of mine; I grow sorghum only, but there is also a cob of maize*'. Similarly: '*I have a field of mine; I cultivate it by night and reap it by night*'. Likewise: '*I have lamps of mine; they light themselves when darkness falls and extinguish themselves at dawn*'. The response in all these cases is 'The stars' (Sobukwe, 1971).

- Riddles about heaven include the following: '*I have mats of mine; there are two of them; one covers the other*'. **Answer:** 'It is heaven and earth'. The same response applies to another riddle: '*With two people of mine; they eat every day but they do not have enough*'. Another riddle is: '*I have a dish of mine of rice*'. **Answer:** 'It is the stars and the heavens' (Sobukwe, 1971).

- One version of a Xhosa praise poem (*isibongo*) sung by the women concerns the small Wing-snapping Cisticola or Kleinste Klopkloppie (*Cisticola ayresii*) Xhosa = *igqaza; unogqaza* or *uqandiliso* (Godfrey, 1941). It is maintained that the Christian God is being addressed, although this may be a more modern interpretation:

Little bird, little bird,
Carry me kindly!
Here I am tired,
Groping so blindly.

Men are so heartless, double faced ever:
Take me to that One who changes never.
Stay little bird, in your upward flight,
Carry me far to the Land of Light,
Tired I am, of deceitful days,
Tired of men, and their faithless ways.
One who is true lives up in the sky,
Carry me there, to the Land on High.

The original Xhosa names of the bird refer to the strange 'clappering' note uttered by the bird while airborne (Godfrey, 1941). Another avian *isibongo* is that of certain Xhosa cattle thieves (the Nqilo) who had the *inqilo* or *nqilo* as their totem or emblem. The bird is the Cape Longclaw or Oranjekeelkalkoentjie (*Macronyx capensis*).

Nqilo! Nqilo!
Little bird with a robe of brown.
In the very early morning
Before the sun
Has so much as tipped the heights,
You rise from out your dewy resting place,
Spreading your wings
As the day is dawning.
Soaring, soaring,
You rise high and higher
In skyward flights.
Look down upon me
Nqilo! Nqilo!
Watch over my enterprise
From the skies
So that with security,
With safety,
I may undertake
And return from
That which circumstance implies.

The song, according to Godfrey (1941), subtly describes both the song of the bird and its manner of flight. The call of the bird is widely believed by the Xhosa to foretell good luck. A story concerning this bird and cattle theft can be found in Partridge (1969). The story is entitled: *The Little Brown Bird*.

The Swazi

- One of the praises of the Swazi king Sobhuza I was: '*They could look at the morning star and Pleiades, / Know that the morning star foretells*'. The king was associated in this way with the Morning Star (Vail and White, 1991).

The Southern Ndebele

- One Southern Ndebele riddle reads: '*By my many children I am unable to count*'. **Answer:** 'The stars' (Mahlangu, 1988).

- Another Southern Ndebele riddle is: '*I have my mother's/father's blankets; they are equal*'. **Answer:** 'The earth and heaven', or 'The moon and the sun'. A very similar riddle is: '*My blankets are equal*'. **Answer:** 'The earth and heaven' (Mahlangu, 1988).

The Zulu

- '*Sprouted corn (for beer-making) spread out at night*', or '*Groundnuts* (Voandzeia subterranea) *spread out at night*', or '*My used sprouted corn which spreads out and then collects itself*', or '*Sorghum of the chief hut*', or '*Descriptive of appearing and of lighting up*'. **Answer:** 'Stars' (Khumalo, 1974).

- '*You will cook until uNongidi shines*'. This is the name of a non-existent star. A person who works to no purpose, for example, someone who cooks in an incorrect manner will not achieve the desired result, regardless of the time taken (Nyembezi, 1954).

- '*You will plait a long rope which reaches the sky*'. No rope can ever reach the limits of the sky. It is impossible to make one's escape even if a rope of sufficient length could somehow be plaited. This is a reference to someone who has done wrong, and who attempts to escape retribution following his or her misconduct. There is no way of avoiding punishment in such a situation (Nyembezi, 1954). Werner (1933) confirmed that a number of African peoples once regarded the sky as a vault which meets the Earth at the horizon. Stories of those who succeeded in reaching heaven (none of the then-living) describe the use of a tall tree, a rope which descends from above, or a spider which obligingly spins a long thread. One of the praises of the Zulu king Senzangakhona kaJama (Shaka's father) describes this very feat:

  The son of Jama the king, he twisted a cord;
  Fearless he scaled the mansion of Heaven's lord,
  Who over this earth of ours the blue vault hollowed.
  And the ghosts of the house of Mageba fain would have followed,
  But never will they attain,
  Though they strive again and again
  For the pass that cannot be won by spear or by sword–
  No hold for the wounded feet that bleed in vain.

  Werner (1993) observed that no one appeared to know more about these exploits of Senzangakhona, who evidently died a natural death. It 'appears' that Senzangakhona was somehow able to return to his people from heaven and only later succumbed to old age. The main feature of *umgebhulo* (a Zulu dance), interestingly, involved grasping in the air with one's hands, as if to pull down heaven, or to climb to heaven (Samuelson, 1974).

- '*He who is like the swallow soaring towards heaven*'. This account refers to the Barn Swallow or Europese Swael (*Hirundo rustica*) Zulu = *iNkonjane*, which features in the praises of Zulu kings (Samuelson, 1974).

- '*He is like the lark flying up towards heaven*'. The statement relates to an ambitious person. The Zulu maintain that the bird ushers in spring by means of sweet notes, while sitting on the top of a twig or on a termite mound. The bird suddenly soars towards the sky 'uttering beautiful trills', which being interpreted, results in this phrase (Samuelson, 1974). The bird is the Rufous-naped Lark or Rooineklewerik (*Mirafra africana*) Zulu = *uNgqangendlela* or *uNongqwashi*.

- '*What wide expanse holds more things than anything else*'. **Answer:** 'The sky' [St. Lys, 1916].

- '*Pot lids facing each other*', or '*A blue dish with a tan lid*', or '*Two grass dishes facing each other*', or '*My dented dish with a beautiful lid*'. **Answer:** 'The sky and the earth'.

The explanation for the first riddle is that the pot lids on the old-style three-legged cooking pots were dome-shaped rather than flat (Khumalo, 1974). Also relevant is: '*I riddle you with my green pasture which has flowers*'. **Answer:** 'The sky and the stars' (Mathenjwa, 2000).

The Venda

- One Venda riddle reads: '*The winnowing baskets of my mother (the wooden platters of my father) which are of equal size*'. **Answer:** 'The earth and the sky' (Blacking, 1961).

- Another riddle is: '*I counted stars and had to give up*'. **Answer:** '*Tshilimela*' (the Pleiades) (van Warmelo, 1989). In similar vein are two additional riddles: '*I began to count the stars, but I was defeated by the Pleiades*' and '*Stars too numerous to count*'. The answer in both cases is: 'The legs of a millipede' (Blacking, 1961).

- Also of relevance is: '*My father's kaross was full of seams*'. **Answer:** 'The stars'. A further riddle with the same answer is: '*I poured out a sack of mealies and left them in the courtyard, saying that I would pick them up in the morning; but when I rose up I found that there was nothing there*' (Blacking, 1961).

- Two Venda riddles which have religious connotations are as follows. '*The Europeans say, We are readers. But can they finish the book of God*'. Reference is made here to Ñwali (the traditional Venda high god) also known as Raluvhimba. A virtually identical riddle reads: '*You are readers, you Europeans; but can you read the book of Moses*'. The response in both cases is 'The stars' (Blacking, 1961).

- The stars serve as an analogy in this instance: '*The star which closes the top of the slope*'. **Answer:** 'Girl's loin dress' or 'breasts (nipples)' (Blacking, 1961).

The Matabele

- Part of the praises (*izibongo*) of Mzilikazi, the king of the Matabele (Ndebele) refer to '*The tall conspicuous, early morning star in the south-east preceding the constellation Pleiades / The sun that rises from the ear of an elephant, it rose and starlings cried one to another*' (Vail and White, 1984). The star is seemingly Canopus.

Some stories and poems concerning the heavens

Stories

Two northern San stories about the stars are outlined in Fourie (1994). These are: *The Story of Creation* and *≠Um ≠Um Borose*. A story *inter alia* involving the Milky Way (*The Stars and the Stars' Road*) is given in Metelerkamp (1914). Readers are also referred to the stories in the primary /Xam texts compiled by Bleek and Lloyd (**see Chapter 2**). One short story entitled: *The Seven Stars*, and which describes the Pleiades, can be read in Pitcher (2007). The story is based on southern African oral information.

A Shangana or Shangaan story entitled: *The Rabbit Prince* is given in Bourhill and Drake (1908). The story concerns a Rabbit Prince and a Princess (the latter originally from the sky). The pair fall in love and wish to marry. The Princess longs to visit her home to see her parents in the sky (the King and Queen of the Sky), and to advise them of her new

circumstances. Use is made of a magic feather, planted in the ground, which grows taller and taller until it reaches above the clouds. The Rabbit Prince, the Princess, Mouse and Woodpecker climb up the feather. The King of the Sky and the sky people will not accept the Rabbit Prince since he is not one of them (i.e. he comes from Earth). Various attempts to kill the Rabbit Prince are foiled. The Princess realizes that the only solution is to return to Earth to escape the vengeance of the sky people. The magic feather is brought into action and stretches down to the ground. The four escape from the land of the clouds via the feather and live happily thereafter.

The adventures of a Ronga girl and her sister are described in a story entitled: *The Road to Heaven* (Junod, 1927). The story, as per Junod, is that of a young girl who breaks her earthen jar. The girl fears a scolding from her mother for this unfortunate incident. The girl climbs up a string, reaching heaven in this manner. The girl finds a village in heaven where a child is given to her because she is so sweet and obedient. Her sister, a cross and wicked individual, also tries to achieve the same objective. Heaven then explodes (*baleka*). The bad sister is killed by heaven using lightning, and her bones are blown right down to her parents' house. A longer and slightly different version of the story is given in Werner (1933).

A Zulu story involving heaven is entitled: *The Girl and the Cannibals*. The story was first published in Callaway (1868). The story is about a brother and sister who escape from cannibals by climbing a tree, thus entering heaven. They discover a very beautiful country and find a magnificent house. The brother and sister subsequently drive a large ox back to the house. They kill the ox and spread the skin out to dry in the Sun. They light a fire to roast the meat. The cannibals from whom they had escaped smell the odour of the cooking meat. The cannibals look in every direction, finally looking up. One of the cannibals closely resembles the cannibal who caused all the trouble in the first place. The sister suggests that they entice the cannibal up to heaven to harass him, just as he did to them. The brother has his *assegai* or spear with him for defence against the cannibal. The pair cut the ox hide into strips to form a rope, which is lowered to the ground. The cannibal climbs up the rope and enters the house. The brother and sister, however, will not allow the cannibal to eat any of the meat or bones of the ox. The cannibal, after some days, dies of starvation. His body is thrown down to the ground below. The brother and sister return to Earth by using the rope. They search for their long-lost older (married) sister, later finding her. The three then live happily at the older sister's house (Callaway, 1868).

A story related by Casalis (1861) concerns the stars. The story entitled: *The Metamorphosis of a Maiden* is seemingly of Tswana origin. A young girl went to the fields one day where she found a melon which she intended to take to her mother. The girl had some admirers who were aware that she was absent in the fields. They sat next to the roadside to await her return. When the girl came back the admirers praised her beauty. The girl was so pleased that she gave them the melon. Her mother, on hearing this news, reproached her. The girl instead of remaining silent raised her eyes to heaven and addressed a favourite star. She sang:

Star, little star! My friends of Mabiela waited for me yonder by the roadside. I took some fruit and gave it to them. Star, little star! My mother curses me; she says I have green eyes, as green as those of the crocodile; oh my star! My little star!

The mother, irritated by this song, beat her daughter to death and reduced her body to powder. The wind of the desert rose, carried this dust away, and threw it into a lake. A crocodile collected the dust and turned the dust into a very attractive woman, who lived with him at the bottom of the lake. The woman from time to time appeared on the surface of the water to call her sister Mosibutsane, and to advise Mosibutsane of the misfortune which had befallen her. She sang in a plaintive voice:

Thy mother, O Mosibutsane, reduced me to dust, and cast me to the winds; the crocodile gathered me up; he has given me a human form again, and has made me what I am (Casalis, 1861).

A Southern Sotho (Basotho) variant of the story, but without any mention of the stars, can be found in Dornan (1908). This version may partly explain the origins of the crocodile totem or emblem amongst the (Southern Sotho) Bakoena (Bakwena) or 'people of the crocodile' (*kwena* = crocodile). To be called a 'child of the crocodile' was a very great honour (Dornan, 1908). It is unclear which of the two stories can be regarded as the 'original' version.

Poems

The poems below are purely a selection for further reading.

- A Song Sung Especially by /Xam Women (San traditional verse by Dia!kwain: reworked by James). See: James (2001).
- After a Dark Season (Mazisi Raymond Kunene, 1930–2006). See: Kunene (1982).
- At Crystal Pool, Cederberg (Alan James, 1947–). See: Chapman (1990).
- Beyond Knowing (Mazisi Raymond Kunene). See: Kunene (1982).
- Contrasts (Mazisi Raymond Kunene). See: Kunene (1982).
- Death (San traditional verse by Diä!kwain: reworked by Krog). See: Krog (2004).
- *From* Evening, Night and Dawn in South Africa (Mary Rosalie Boyd, 1880–1960). See: van Wyk Smith (1988).
- Five Cycles or The Mysteries (Mazisi Raymond Kunene). See: Kunene (1982).
- Hyenas Fear the Fire (San traditional verse by //Kabbo: reworked by James). See: James (2001).
- Images of the Cosmos from the Earth (Mazisi Raymond Kunene). See: Kunene (1982).

- Lefaufau (Majelele Stephen Serudu, 1935–). See: Mokopela (2006). The title of this Northern Sotho poem, being translated, is 'The Sky'.

- Milking Kraal (Francis Carey Slater, 1876–1958). See: Butler (1959).

- On 'The Birthday of the Earth' (Mazisi Raymond Kunene). See: Kunene (1982).

- Prayer to the Hunting Star, Canopus (San traditional verse by !Nanni: translated/reworked by Jack Cope). See: Chapman and Dangor (1986).

- Rock Painting (Robert Knox {Jack} Cope, 1913–1991). See: Chapman (1990).

- Sicána's Hymn (Xhosa traditional verse composed by Ntsikana ?1780–1821: translated by Thomas Pringle, 1789–1834). See: Chapman (1990). Refer also to: Ntsikana's Vision (David John Darlow, 1881–1971) in Butler and Opland (1989). A shorter poem likewise entitled: Ntsikana's Vision was published by Allan Kirkland Soga (?1862–1938). This particular poem appeared in 1897. A discussion of Sicána's Hymn can be found in Hodgson (1984). See: Chapman (1990).

- *From* Silimela Son of Makinana (Samuel Edward Krune Mqhayi, 1875–1945). See: Eve (2003). This praise poem celebrates the Xhosa (Ndlambe) chief, Silimela (= the Pleiades) whom Mqhayi served as a councillor; and also the heroic exploits of Makinana (the chief's father) during the last of the frontier wars in 1877. Mqhayi had a strong interest in the heavens. A star, the Sun and the Moon are engraved on his memorial column on a hilltop: the site of his home and the place where he spent the last 20 years of his life. The hill near the town of Berlin is known as Ntambozuko or 'Mount of Glory' (Eve, 2003). Mqhayi, according to Eve, is the most important Xhosa literary figure of the early 20th century.

- Sirius and Canopus (San traditional verse by /Han≠kass'o: reworked by Krog). See: Krog (2004).

- Song of the Dawn's Heart Star (San traditional verse by //Kabbo: reworked by Watson). See: Watson (1991).

- Southern Stars (Ralph Nixon Currey, 1907–2001). See: van Wyk Smith (1988).

- Star Song of the Bushman Women (San traditional verse by Diä!kwain translated/reworked by Jack Cope). See: Cope and Krige (1968). Another version: 'The Song of the Star' can be found in Krog (2004).

- Sun, Moon and Stars (San traditional verse by //Kabbo: reworked by Watson). See: Watson (1991).

- The Caffer (Thomas Pringle). See: Crouch (1911).

- The Dawn's Heart Star: Two Fragments (San traditional verse by //Kabbo: reworked by Watson). See: Watson (1991).

- The Dawn's Stars That !Gaunu Named //Xwhai (San traditional verse by Dia!kwain: reworked by James). See: James (2001).
- The Girl Who Created the Milky Way (San traditional verse by //Kabbo: reworked by Watson). See: Watson (1991).
- The Great Star Which Singingly Named the Other Stars (San traditional verse by Diă!kwain: reworked by Krog). See: Krog (2004).
- The Milky Way and the Stars (San traditional verse by //Kabbo: reworked by Krog). See: Krog (2004).
- The Sound of the Stars (San traditional verse by /Han≠kasso: reworked by Watson). See: Watson (1991).
- The Southern Cross (British Officer). See: Rosenthal and Robinow (1948).
- The Star and the Hammerkop Are Those That Tell Us That One of Our People Has Died (San traditional verse by Dia!kwain: reworked by James). See: James (2001).
- The Wind is One with the Man (San traditional verse by Dia!kwain: reworked by Watson). See: Watson (1991).
- The Wood-gatherers (Francis Carey Slater). See: Butler (1959).
- This Night Shall Pass (Mazisi Raymond Kunene). See: Kunene (1982).
- Throwing Fire at the Stars (San traditional verse by //Kabbo: reworked by Watson). See: Watson (1991).
- Twilight on the Veld (George F. Judd, biographical details unknown). See: Crouch (1911).
- What the Stars Say (San traditional verse by /Han≠kass'o: reworked by Krog). See: Krog (2004).

South African flora and fauna with celestial names

The reasons for the naming of the individual species sometimes concern the shape of the object or the general colour or specific patterns; or occasionally activity at a particular time of the day in the case of vertebrates or invertebrates and certain plants. Only a few examples are provided below:

Plants

- Common Meadow-star (*Asclepias stellifera*): a slender, erect or slightly reclining herb (Pooley, 2003);
- Evening Flower or Aandblom/Bontrokkie (*Hesperantha tysonii*): a slender and erect night-flowering species (Pooley, 2003);

- Falling Stars/ZigZag Crocosmia or Vallende Sterretjies/Waaierlelie (*Crocosmia paniculata = Curtonus paniculatus*): an evergreen flowering species (Pooley, 2003);
- Satellite-dish (*Asclepias cultriformis*): a perennial herb (Pooley, 1998);
- String of Stars/Wild Heliotrope (*Heliotropium steudneri*): a perennial herb (Pooley, 1998);
- Sundew or Doublom/Sondou (*Drosera natalensis*): a small herb (Pooley, 2003);
- Wild Creeping Sunflower (*Aspilia natalensis*): a straggling perennial herb (Pooley, 1998).

Vertebrates (data drawn from the Roberts VII Names Database, Version 2005.10.04, posted by the Percy FitzPatrick Institute of African Ornithology, unless otherwise indicated)

- Aurora House Snake/Night Snake or Auroraslang (*Lamprophis aurora*) (FitzSimons, 1974);
- Black-crowned Night-Heron or Gewone Nagreier (*Nycticorax nycticorax*);
- Giant Girdled Lizard/Sungazer or Reuse Gordelakkedis or Sonkyker or Ouvolk (*Cordylus giganteus*) (Branch, 2000);
- Moonfish or Maanvis (*Monodactylus falciformis*) (Smith and Smith, 1966);
- Orange-breasted Sunbird or Oranjeborssuikerbekkie (*Anthobaphes violacea*);
- Sunfish or Sonvis (*Mola mola*) (Smith and Smith, 1966);
- Swamp Nightjar or Natalse Naguil (*Caprimulgus natalensis*): a bird species.

Invertebrates (data derived from Picker et al. (2004), unless otherwise indicated)

- Banana Nightfighter or Piesangskemervegter (*Moltena fiara*): a butterfly species;
- Mimosa Moon Moth/Lunar Moth or Afrikaanse Maanmot (*Argema mimosae*);
- Star Sandman (*Spialia asterodia*): a butterfly species (Woodhall, 2005);
- Sundowner Moth or Sononder Mot (*Sphingomorpha chlorea*);
- Sunspiders/Red Roman Spiders or Romanspinnekoppe (Order: Solpugida [Solifugae]);
- Twilight Brown/Evening Brown or Skemerbruintjie (*Melanitis leda*): a butterfly species;
- Uranus Opal (*Chrysoritis uranus*): a butterfly species (Woodhall, 2005).

South African place names and the stars

- **Aandster or Avondster (a settlement south west of Schweizer-Reneke: North-West Province) *27º26'S 25º12'E***
  The name probably refers to Venus.

- **Ikwezi or Ikwesi (a railway siding in Mofolo North, west of Dube: Gauteng) *26º14'S 27º53'E***
  This Zulu name is that of the Morning Star (Venus).

- **KuNtabezulu (a mountain south south east of Ngcobo: Eastern Cape) *31º54'S 28º03'E***
  This Xhosa name means 'mountain of heaven', with the word *izulu* also meaning 'the sky', 'lightning' and 'the atmosphere' (Raper, 2004).

- **Lindiswe (a settlement high up in the Lebombo Mountains, north of Ingwavuma: KwaZulu-Natal) *26º51'S 32º01'E***
  The name means 'we are closest to heaven' (Daly, 2000).

- **Luonde (a settlement in the vicinity of the Luonde hills in the Soutpansberg, east of Louis Trichardt: Limpopo) *23º04'S 30º07'E***
  This Venda name has two meanings one of which is 'heaven' (P.A. Jones).

- **Manyeleti Game Reserve (east of Acornhoek and bordering the Kruger National Park: Limpopo) *24º36'S 31º28'E***
  Manyeleti means 'place of the stars'. The name refers to a small lake which is noted for its reflections of the stars. The lake is situated near the entrance to the game reserve (Reader's Digest Association, 1980). The same name is applied to the Manyeleti River, also known as the Sand River, which is a tributary of the Sabie River (Raper, 2004).

- **Naledi (a township and railway station in the western section of Soweto: Gauteng) *26º16'S 27º49'E***
  This Sotho name means 'a star' (Raper, 2004).

- **Nkanyezi (a township adjacent to Colenso: KwaZulu-Natal) *28º44'S 29º49'E***
  The Zulu name means 'a star' (Raper, 2004).

- **Nkwenkwezi (a township adjacent to Port Alfred: Eastern Cape) *33º36'S 26º54'E***
  The Xhosa name means 'star of the morning' according to Raper (2004). The Xhosa word for a star, however, is *inkwenkwezi*.

- **Nwanedzi (a river, lookout point and small camp east south east of Satara in the Kruger National Park: Mpumalanga) *24º27'S 31º58'E***
  One version is that the Shangaan (Tsonga) name for the river, after which the camp and lookout point are named, refers to the 'reflections of the moon' (Braack, 1983). The river is a tributary of the Komati or Nkomati River. A further version is that the name means 'reflections of the stars'. There is another river, a tributary of the Letaba River (north west of Letaba) which has the same name (Raper, 2004).

- **Qamata (a town, railway siding and poort to the east of Queenstown: Eastern Cape)** ***31º59'S 27º27'E***
  It is said that the Xhosa, thereabouts, were lucky (fortunate above all others) and named that part of the country accordingly (Broster, 1967). Any good fortune experienced by these Xhosa was greeted by the exclamation '*Qamata!*' The name is a religious loan-word derived from the Khoikhoi, and was used by the Xhosa in the past as one form of address for the (traditional) supreme being or creator (Raper, 2004; Eiselen and Schapera, 1966). McLaren (1918) referred to Qamata as a 'striking mountain' in the St Marks district. This mountain is a perfect dome with a dyke of igneous rock resembling the raised ridge of a helmet passing right over the highest part of the mountain.

- **Simakade (a 2 068 m high peak west of Lüneburg: KwaZulu-Natal) ±** ***27º20'S 30º26'E***
  The name may be linked to the pre-Christian Zulu religious concept of a supreme being, namely: uSimakade or 'the eternal one' (Alcock, 2010).

- **Stella (a town north north east of Vryburg: North-West Province)** ***26º33'S 24º52'E***
  The name, Stella or star, is derived from the (former) Republic of Stellaland and its successor the United States of Stellaland (**refer to Chapter 2**). The surrounding area is known as Stellaland, or more latterly as the Bophirima District Municipality (currently the Dr Ruth Segomotsi Mopati District Municipality). There is also a township, Sterresig meaning 'star view' in Afrikaans which is situated close to Vryburg (Alcock, 2010).

- **Wyllie's Poort (a gorge north of Louis Trichardt: Limpopo)** ***22º56'S 29º56'E***
  The original Venda name, prior to the opening of the road through this section of the Soutpansberg, was *Manaledzi* or 'in the stars'. The gorge was so narrow in parts that baboons could jump from one side to the other. It was said that the brightest stars could be seen shining in the gloom from the depths in the middle of the day (Bulpin, 1950). A different version is that the Venda believe that the sacred pool of *Maneledzi* in the Mutale River (to the north east of Wyllie's Poort) is so deep and black that one can see stars reflected in the water during the day (Blacking, 1998).

CHAPTER 6

Comets and meteors

Comets

Comets only become visible when they are near the Sun. Most comets are unspectacular and appear as a small splash of light (a faint 'fuzzy' object). Other comets, in turn, are impressive and may become celebrated in local and national folklore. Comets in deep space consist of agglomerates of frozen gases, dust and ice. A comet near perihelion (the point of closest approach to the Sun) is made up of a compact nucleus, a coma and usually a tail. The *nucleus* is small, perhaps only a few kilometres wide, and contains nearly all the mass of the comet. The constituents of the nucleus partly vaporize in the vicinity of the Sun, with gases and dust forming a *coma* around the nucleus. Some of the gases and dust of the coma, under the influence of the solar wind, form a *tail*. The tail always extends more or less directly away from the Sun due to the direction of the solar wind.

Comets typically have two tails, namely, a readily-seen dust (Type 1) tail, and a gaseous ion (Type II) tail, which is only visible in certain very bright comets when the viewing 'geometry' is favourable. A Type I tail reflects visible sunlight and is consequently yellowish-white in colour. A dust tail, unlike an ion tail, often appears curved because of the curved orbit of the comet and the effects of the solar wind on the dust particles of different sizes. A Type II tail is formed by the ionization of some of the gases emitted from the nucleus. Ionization is due to high energy particles in the solar wind. These particles cause the ions to fluoresce, mainly resulting in a blue-green colour. A Type II tail often appears to be orientated at a slight angle to a Type I tail.

Comets, on a temporal basis, can be divided into long-period comets and short-period comets. *Long-period comets* are believed to be derived from a cloud of material left over from the formation of the Solar System itself. The material is thought to be preserved in a similar state as the original material extant when the Sun and the planets were formed. This cloud, known as the Oort Cloud, is situated at the outer reaches of the Solar System. Some of the material breaks away at intervals, and due to gravity accelerates towards the Sun in the form of a comet. Most new comets from the Oort Cloud have near-parabolic orbits and are only perturbed (forced) into elliptical orbits by the gravitational effects of major planets such as Jupiter. Long-period comets have orbital periods greater than 200 years by definition, although the actual orbital periods are generally of the order of a few thousand years or more. *Short-period comets* can be defined as those with orbital periods of less than 200 years. It is possible to calculate the periods and the return perihelion dates of such comets with some accuracy, since their orbits are fairly well-known and understood. Short-period comets, without exception, have elliptical orbits. These altered orbits are once again caused by the gravitational effects of the large planets on the comets.

The source of most, but not all, short-period comets is believed to be the Kuiper Belt, which is a belt of small astronomical bodies beyond the orbit of Neptune. Some short-period comets, nevertheless, may originate from the Oort Cloud. Comets whose return periods are generally known are termed *periodic comets*. These comets are mainly short-period, but may include a few long-period comets. Long-period comets are more numerous and tend to be brighter than short-period comets.

Comets are frequently visible only during twilight because of their proximity to the Sun at that time, and hence the optimum brightness of the comet. Comets, contrary to popular belief, do not 'shoot' across the sky, but move at approximately the same speed as the planets. Comets rise and set along with the stars. Close observation of comets is required to detect their motion against the stellar background. A few very bright comets can be seen in daylight. Comets are very unpredictable in terms of their apparent magnitude. A bright comet with a prominent tail will be evident once every 10 years or so (Jones, 2007; Nicolson, 1977; FitzGerald, 2005; Turk, 2001; T.P. Cooper). It is apparent that there is occasionally confusion in the anthropological literature between comets *per se* and meteors *per se*. It is virtually impossible to resolve these problems in the present era.

Zulu comets

An older Zulu term for a comet is *inkanyezi enobaqa* or 'a star with a torch' (Bryant, 1905). A more modern spelling is *inkanyezi enomsila* (Doke et al., 1958). An early comet, referred to as an *ubaqa* (literally a 'torch'), was that which was observed in the night sky in August 1827 when Nandi died (Ndukwana: a Zulu informant cited in Wright and Webb, 1986). Nandi was the mother of the Zulu king Shaka. A persistent Zulu belief is that she was stabbed to death by Shaka, although other explanations for her demise are possible (Laband, 1995). Dirges were chanted to lament Nandi's death, while pieces of burning wood were thrown up at the comet (Ndukwana). Nandi was of such a rank that she could not be buried alone (Laband, 1995). A number of Nandi's personal attendants (girls and women) were killed and buried with her, to serve and look after Nandi in the nether world (down below). Widespread killings instigated by Shaka then took place. A public mourning period of a year was enforced by Shaka (Laband, 1995).

The comet, allowing for a slight discrepancy in the date of Nandi's death, is seemingly C/1827 P1 Pons, which achieved perihelion on the 12th of September 1827 (T.P. Cooper). It is possible that the Zulu may have seen this comet very low on the horizon just after sunset, around the 10–11th of September 1827. The tail (presumably long and slender due to the comet's proximity to the Sun) would have pointed almost directly upwards or slightly to the left. An extended tail would have resulted in the Zulu continuing to see this part of the comet in the evening, some time after the head itself had set. The comet, in this computer-generated scenario, may have resembled a spear plunging into the Earth (T.P. Cooper).

Cetshwayo, a later Zulu king, was detained in Cape Town after the Anglo-Zulu War (Samuelson, 1974). On or about the 1st of September 1881, he pointed to a 'large comet' visible 'south east by south' of Table Mountain. Cetshwayo turned to R.C.A. Samuelson, his interpreter, and remarked: 'That is a sign that the Queen [Victoria] will restore me to Zululand'. Cetshwayo's fervent wish, unfortunately, never came to pass. A computer

simulation undertaken by W. Koorts revealed that a comet was indeed visible to the naked eye at around 20:00 on the 1st of September 1881 in Cape Town. This was Comet C/1881 N1 (Schaeberle) which had an apparent magnitude of +3.7, an altitude above the horizon of 12°, and an azimuth of 292° (west north west). Perihelion for the comet was on the 22nd of August 1881. It is evident that Samuelson's azimuth information was incorrect.

After an absence of many years, Comet 1P/1909 R1 (Halley) was once again visible (low on the horizon) in southern Africa from mid-April until early June 1910. The comet had a maximum apparent magnitude of approximately 0, and was therefore very bright. Perihelion was on the 20th of April 1910. The comet was initially a morning event. Optimum visibility was evidently during the morning of the 15–17th of May 1910. The comet subsequently became an evening phenomenon after the 19th of May 1910, while receding from the Sun. Peak evening visibility was on the 20–22nd of May 1910 (T.P. Cooper; W. Koorts). R.T.A. Innes, the director of the (then) Transvaal Observatory in Johannesburg, estimated that the 'actual and unbroken' tail of the comet, one night in May 1910, extended through an angle of 150° (i.e. almost from horizon to horizon) (Spargo, 1986).

The Zulu watched the comet closely each night with fear and trembling (L.H. Samuelson, 1974). The comet was seen as an omen which signified that something bad was about to happen, and which would affect everyone. The white colour of the comet indicated that the British, in particular, would suffer. This belief was confirmed when King Edward VII died unexpectedly on the 6th of May 1910. The comet continued to be visible every night, becoming longer and longer. The very long and white tail of the comet was perceived to be the finger of God reproving his people, especially the Europeans, since he was not satisfied with their way of ruling his Earth (L.H. Samuelson, 1974). The comet, according to Couzens (1977), was widely viewed as foretelling the end of white rule in South Africa. There were reports of unrest *inter alia* at Taung and in later years at Bulhoek near Queenstown, where a religious sect (the Israelites) regarded the comet as an omen and awaited the disappearance of the white people (Couzens, 1977).

The comet was also viewed by the white population of South Africa as a harbinger of disaster, with the death of King Edward likewise resulting in trepidation (Plug, 2010). Anxiety reached a maximum on the night of the 18–19th of May 1910 despite assurances from amateur and professional astronomers. It was on this night that the Earth passed through the tail of the comet, which would have been a spectacular sight. The return of Comet Halley, and the heightened interest in astronomy, was partly responsible for the establishment of the Cape Astronomical Association in 1912 (Plug, 2010). Comet Halley is probably the most famous comet of all in both the northern and southern hemispheres, and has an orbital period of about 76 years (Nicolson, 1977). Comet Halley has appeared in South African skies five times since the advent of white settlement at the Cape in April 1652 (Spargo, 1986). The years concerned were 1682 (sighting recorded by the Governor of the Cape, Simon van der Stel, in his journal for the 8th of September 1682); 1759; 1835/1836; 1910 and 1985/1986. Van der Stel noted that the comet was 'showing itself lower and lower', and that there had been heavy rains and an insect pest which had destroyed the crops. He wondered what would occur when the 'comet has sunk right down' (Quarmby,

1985). The 1910 comet had a second nucleus in the head, and an unusually large number of rays or streamers forming the tail (Spargo, 1986).

An interesting point is that there was some initial confusion regarding Comet Halley in 1910, when three railwaymen at Kopjes Station in the Free State (amongst others) reported seeing a comet in the morning twilight on the 12th of January of that year (Spargo, 1986; T.P. Cooper). The comet was in reality the very bright Comet C/1910 A1 (Daylight Comet), which was lost to the naked eye by mid-February 1910 (T.P. Cooper). According to Spargo, this mistaken identity was perpetuated in both verbal and newspaper reports at the time. Spargo noted that some elderly people (still alive in the 1980s) who recalled seeing Comet Halley had probably observed the fortuitously-timed Daylight Comet instead.

Xhosa comets

The Xhosa historical calendar was based on significant natural and human events. These included the circumcision or death of a prominent chief; cattle and human epidemics; wars; droughts; comets; great rains; earthquakes; crop failures due to disease or drought, and any political occurrences which directly or indirectly affected the people. The Xhosa interpreted any strange signs in the heavens, such as comets and shooting stars, as omens or *imihlola* (Soga, 1931). The Xhosa term for a comet is *inkwenkwezi enomsila* or 'star with a tail' (Tshabe and Shoba, 2006). Comets, according to T.E. Matomela, were predictive of a natural disaster, or brought a deadly livestock disease with them, or were associated with the death of a king. A shooting star, in turn, was linked to misfortune in the old days, although the modern generation of Xhosa believe it to be a sign of good luck (reflecting a western influence) (T.E. Matomela). The Xhosa term for a shooting star is *inkwenkwezi entshotsholozi*, while the word *umtshiti* refers to the trail of a shooting star (Kropf and Godfrey, 1915).

Mention is made of comets on three occasions in the period *circa* 1686–1902, which is the data-span given by Soga in his register of the Xhosa historical calendar. The respective comets, as per Soga, were in 1843 (Year of the Great Comet or *umgca omkulu*); in 1848 (Year of the Small Comet or *umgca omncinane*), and in 1884 (Year of the Comet or *intshakatsholo*). Kropf and Godfrey (1915), while confirming a comet in 1884, also refer to a comet in 1841. There is no entry for the year 1841 in the Xhosa historical calendar provided by Soga (1931). Soga (1930), however, states that there was a comet (*umgca*) in 1841. This comet was sighted in the year after Sandile, a Gaika chief (1820–1878) attained his manhood (was circumcised). The latter event forms part of the historical record supplied by Soga (1931). A Xhosa dictionary compiled by Pahl, Pienaar and Ndungane (1989) makes reference to the term *itshobololo* which is defined, amongst other things, as a shooting star or comet, 'specifically the comet of 1848'.

The 1841 comet is problematic. There were no comets in that year in South Africa which were bright enough to be seen with the naked eye (T.P. Cooper). The 1843 Xhosa comet is surely Comet C/1843 D1 (Great March Comet). This comet was visible to the naked eye from the first week in February 1843 until early-mid April (the actual date depending on the locality of the observer). The comet, at its greatest apparent magnitude in March, was best observed from the southern hemisphere. The comet had an extremely long tail, was very bright, and was visible during daylight for a time. The comet was seen and described

from the (then) Royal Observatory in Cape Town (data derived *inter alia* from three websites, accessed on the 26th of December 2010. See: http://www.cometography.com/lcomets/1843d1.html; http://www.icq.eps.harvard.edu/bortle.html; http://en.wikipedia.org/wiki/Great_Comet_of_1843; Warner, 1980). The second comet is possibly Comet C/1848 P1 (Petersen), which was visible to the naked eye in the early morning in late August–early September 1848. The comet had a magnitude of approximately +3–4 (T.P. Cooper). The comet described for 1884 could not be positively identified. There are two comets which may have been seen by the Xhosa at that time, although only one comet was evidently recorded by the Xhosa. The first possibility is Comet C/1884 A1 (Ross) which had a maximum apparent magnitude of about +2. The second possibility is Comet 12P/1883 R1 (Pons-Brooks) which may have reached a magnitude of +3. Both comets were visible to the naked eye in South Africa in the early evening during January 1884 (T.P. Cooper). The Xhosa, according to Pahl et al. (1989), gave the name *uZatshoba* to the 1910 and 1986 apparitions (appearances) of Comet Halley.

Northern Sotho, Southern Sotho (Basotho) and Tswana comets

Kropf (1879) referred to the Basuto (actually the Northern Sotho) at Blauberg (now Blouberg) in north west Limpopo Province, who 'adored' Modudutsa, a large comet. No further details were provided regarding the identity of the comet, although the original report was dated the 19th of October 1877. It is not impossible that the comet may have been Comet Halley in one of its previous apparitions, or perhaps the comet of 1843. A comet (*mošošonono*) was believed by the Pedi (in contrast to the above sentiment) to constitute a very bad omen, and predicted war (Mönnig, 1983). Kriel and van Wyk (1989) give *naledi ya mosela* as the Northern Sotho term for a comet. Beyer (1919) described comets as *naledi tsha mesela* ('stars with tails') which signified the death of a great Northern Sotho chief. A prominent although ruthless Pedi chief (Sekhukhune I) was assassinated during the night of the 13th of August 1882 in a succession struggle for chieftainship of the Pedi (Mönnig, 1983). This event could perhaps have been retrospectively associated with the impressive Comet C/1882 R1 (Great September Comet), which was first seen in South African skies on the 7th of September 1882 (**refer to Chapter 2**).

Ambrose (2000; 2009) gives the Southern Sotho (Sesotho) word for a comet as *mochochonono*, which is derived from *ho chocha* ('to have a sharp point'). Ambrose (2009) observed that this term is a favourite name for newspapers in Lesotho, dating from the reappearance of Comet Halley in 1910. The second independent Sesotho/English language newspaper in Lesotho, founded in 1911, was *Mochochonono: The Comet* (Ambrose, 2000). A shooting star (meteor) is known as *naleli e mochochonono* (Ambrose, 2009). An early term for comets (plural) was *baeti ba letsatsi*, with meteors (plural) being described as *naleli tse qhomang* (Duby, 1910).

A few lines in a Tswana praise poem in honour of Sebele I of the Kwena, according to Norton (1922), may possibly refer to Comet C/1858 L1 (Donati). This spectacular comet, one of the great comets of the 19th century, reached perihelion on the 30th of September 1858. The comet was not then visible in southern Africa. The comet subsequently moved southwards, and could be seen with the naked eye in southern Africa, in the early evening, during the latter part of October 1858. The apparent magnitude of the comet at that stage

was of the order of zero to first magnitude. The comet faded in November 1858, and was invisible to the naked eye by the end of the month. The comet had a long and slender tail (T.P. Cooper). Breutz (1969), in discussing the Sotho-Tswana in general, noted that important (highly visible) comets were not forgotten, and that the dates of their appearance were used for dating other historical events.

Tsonga, Venda and San comets

A comet is known as *nyeleti ya ncila* by the Tsonga (Publications Committee, Swiss Mission in South Africa, 1988). Junod (1927) described comets as *nyeleti ya nkila* ('the star with a tail'); *nyeleti ya musana* = 'the star of dust', or *shimusana*. Comets signified the death of a chief and greatly impressed the Tsonga. The Tsonga resident at Spelonken (presumably Groot-Spelonke) referred to 1883 as the Year of the Comet (Junod, 1927). It is possible that the comet could be the above-mentioned Comet C/1882 R1 (Great September Comet) of 1882, which was still visible to the naked eye in the first few weeks of 1883. Falling stars were likewise a bad omen for the Tsonga, and indicated that a chief had died in the country in the direction where the star fell (Junod, 1927). The Tsonga verbally insulted a falling star to rid themselves of the misfortune associated with this phenomenon. The Venda term for a comet, with regard to an older orthography, is *naledzi ea motsila* (Gottschling, 1905).

The spectacular Comet C/1965 SI (Ikeya-Seki) was feared by some G/wi in Botswana (Silberbauer, 1981). The G/wi, according to Silberbauer, first saw the comet in the early morning sky. This sighting would have occurred during the first part of October 1965, prior to perihelion (T.P. Cooper). The comet had an apparent magnitude of approximately –1 or –2 by about mid-October, which is much the same as Mercury at its brightest. The comet achieved perihelion on the 21st of October 1965 when it was visible in broad daylight, and was very close to the Sun. The comet would have seemed to be almost touching the Sun for any naked eye observer who blocked the Sun with his hand (T.P. Cooper). The G/wi thought that the comet could possibly kill them (Silberbauer, 1981). It was later reasoned that there was nothing that the G/wi could do about the comet, which resulted in the people continuing with their daily lives. The G/wi decided that the comet was not dangerous once it had disappeared and they had not been harmed. None of Silberbauer's G/wi informants could recall having heard of a comet in the past, which meant that knowledge of Comet Halley in 1910 had died out. The G/wi have no word or name for a comet (Silberbauer, 1981).

Comets and South African literature

A prime example of a comet in South African literature is that of *Mhudi*, a novel written by Solomon Tshekisho Plaatje, and only belatedly published in 1930. *Mhudi* is probably the first novel written in English by a black South African (Couzens, 1977). [According to Gardner (1983), however, a novel (*An African Tragedy*) written by the Zulu author R.R.R. Dhlomo and published in 1928 achieved this distinction.] Plaatje was a member of the Barolong, a Tswana people. He was born on a farm near Boshof approximately 50 km east of Kimberley. *Mhudi* was written mainly from a Barolong perspective, although the Boers as well as the Matabele (Ndebele) ruled by their king, Mzilikazi, feature prominently in the book. The Barolong and other Tswana were forced to pay tribute to the feared and

vicious Matabele. Plaatje, as we shall see, was much taken by Comet Halley, and even named his third son Halley.

The setting of the novel is the 1830s. The book has a broad geographic canvas, encompassing parts of which later became the Orange Free State, the western half of the Transvaal and the north eastern Cape, and extending into adjoining Bechuanaland (the modern-day Botswana). Couzens noted that Plaatjie was a close observer of nature, and that many of the described natural symbols help to create the tone of the book. The Sun, the Moon, the stars and comets are clearly visible in all their glory from the generally flat northern landscape; and have (or had) a 'special dominance' in that part of the world which was Plaatjie's home as a young man (Couzens, 1977). The era of the novel concerns the old customary ways and lifestyle of the people, just prior to the coming of the white man and the sweeping changes which followed. It is possible to read the novel on several levels, although only the heavens are of interest here.

Couzens indicates that the symbolic appearance of Comet Halley, in the book, is of great importance. It is a fact that the famous astronomer, Thomas Maclear (later Sir Thomas) who worked at the Royal Observatory in Cape Town, only briefly observed the return of Comet Halley on the 1st of September 1835 due to persistently cloudy conditions (Spargo, 1986). The comet, thereafter, disappeared from the Cape skies for some time as it moved along its perihelion journey around the Sun. Maclear had a later opportunity to closely observe and assess the comet on the 25th of January 1836. Maclear made a total of 117 precise determinations of the comet's position in the period extending from the 16th of February–5th of May 1836. Another well-known astronomer at the Cape, Sir John Herschel, also saw the comet but only after being advised by Maclear (the 1st of September 1835 sighting). Herschel was annoyed by his inability to find the comet which even his servants had already seen on the 22nd of October 1835. Herschel finally succeeded in his quest at sunset on the 28th of October 1835 and continued his observations (with interruptions) until the 5th of May 1836. This was the last time that anyone on Earth saw the comet until its return in 1910 (Spargo, 1986). The comet was perceived by the Barolong and their neighbours to be a sign (in reality) that the Matabele would be defeated (Couzens, 1977).

It is related in *Mhudi* that Mzilikazi, after a setback involving the Basotho, ordered his principal diviner to throw the divining bones to foretell the future. The diviner, amongst other things, revealed that he could see 'a mighty star in the skies with a long white tail stretching almost across the heavens'. The diviner explained that wise men had always known that a star of this variety heralds animal and human diseases, wars, the overthrow of governments, and the death of princes. The diviner foresaw 'streams of tears and rivers of blood' within the tail of the comet. The diviner maintained that the star would remain visible for many nights, that cattle would die and be captured, and that there would be wars in Zululand and fighting in Basutoland (Lesotho). The diviner also proclaimed that he could see 'the mighty throne of Mzilikazi floating across the crimson stream' although safely reaching the far side of the river. There were strong indications of death and destruction for both commoners and rulers (excluding Mzilikazi in the latter case). The new land beyond the river of blood was bountiful with everything in abundance. Mzilikazi would establish a great kingdom in this land. The diviner suggested that the Matabele should move to the

new land before the sighting of the comet and the flooding of the red river: this being the only way to avoid the forthcoming troubles. These predictions were confirmed by the other diviners who were present.

It is stated in the novel that a combined force of Barolong (Rolong), Bakwena (Kwena), Bakhatla (Kgatla) and Bahurutshe (Hurutshe) as well as a contingent of Griqua and the Boers defeated the Matabele [in 1837], who subsequently retreated northwards across the present-day South African border. The comet seen prior to the main battle greatly alarmed the Matabele (in the story), who remembering the prophecies, complained that they were forced to fight not only human foes, but also 'aerial sorcery' against which the Matabele were powerless.

Also disturbing was that the ever-lengthening tail of the comet pointed straight towards Inzwinyani (the present-day Silkaatskop), which was the Matabele capital. Even the New Moon, which was expected to make 'all things new', had instead brought forth turmoil and carnage. These occurrences when combined suggested that the enemies of the Matabele (actually the Boers) were skilled enough to invoke powerful magic to ensure victory. During the battle bees attacked both the Matabele and their foes, with the Matabele receiving the worst of this encounter. It seemed to the Matabele that the bees were part of the evil influence of the comet, which had been sighted the night before. Adding to the gloom was the news that Dingane or Dingaan, the Zulu king, had died from unknown causes. [Plaatje is using poetic licence to heighten the effects of the comet and related incidents, since Dingane was killed at the end of January or the beginning of February 1840, as per Faye (1923).] A number of elderly and senior Matabele believed that the people should flee from the capital if the comet was once again visible in the sky the next morning. If this was not the case, then the prophecies were false and the situation not nearly so dire. The people would thus remain at the capital. The comet duly appeared the next day. Defeat was not only due to the effects of the comet, but was also caused by the firepower of rifles which killed from afar. Matabele warriors reported thunder and lightning coming from 'witches' whom they were unable to get to grips with. The Matabele were therefore facing both celestial and terrestrial evil which could not be countered. Flight was the only option.

Other celestial matters referred to in *Mhudi* are: (a) why one should never try to count the stars (a futile exercise which may have dire consequences), and (b) the dangers of attempting to discover how the Sun, after setting in the west, returns overnight to the east and rises there in the morning. It was said that anyone who wished to discover the secret of the Sun's passage should stay up all night with their eyes fixed to the west. Such curiosity will be satisfied, although those observing the Sun in this manner will not live to tell the tale. Only the 'children of death' have ever seen the Sun going east. It is related in the book that two men decided to watch the Sun to see what happened. Both fortified themselves with strong medicine to prevent death. One man left early and entered his hut, fearing the worst. His companion later called to his friend to come out and see the Sun: 'a big round ball as red as blood!' The Sun, in returning to the east, was tearing at the sky in the same way as a meteor. In the morning the man who had witnessed the Sun travelling east was dead, having died before dawn. Plaatje is again indulging in a degree of poetic licence, although the central theme (what happens to the Sun once it sets) is firmly rooted in the old

South African belief system (**see Chapter 2**). Reference is also made in the Plaatje book to 'Jupiter Pluvius' as the 'god of Good Fortune' who sends or is responsible for a spectacular thunderstorm with lightning and heavy rain. This event is taken by the woman Mhudi, a primary character in the novel, to be a special sign of benediction in her quest to discover the whereabouts of her husband, Ra-Thaga. Brief mention is likewise made of a mirage caused by the sheets of water on the plains following the thunderstorm.

Meteors

Several thousand tonnes of particles from space enter the Earth's atmosphere each day. Most of the particles are tiny, and are smaller than a grain of sand. The particles ablate (are reduced in size or are completely eliminated by friction) in the atmosphere, and may become briefly visible due to the ionization of the surrounding air molecules. The resulting streak of light, which only lasts for a few seconds, is known as a *meteor*. The terms 'shooting star' and 'falling star', are sometimes encountered, although both are incorrect and misleading. These older terms, nevertheless, in keeping with the ethos of this book have been used here with reference to the anthropological literature. Very bright (larger) meteors are termed *fireballs* or *bolides*. Any meteors equal to or brighter than Venus are known as fireballs, while a very bright fireball or a fireball which explodes is referred to as a bolide. Fireballs are typically the size of a piece of gravel or a small pebble.

Meteors are most often seen in the early hours of the morning, and are usually confined to the upper atmosphere at an altitude of 80–100 km. Meteors can be *sporadic* (infrequent) or form part of a *meteor shower*. A meteor shower occurs when the Earth intersects a stream of *meteoroids* (particles travelling through space) which are derived from the disintegration of a larger body, usually a comet or less often, an asteroid/s. The origins of sporadic meteors in contrast are uncertain, although they probably consist of solitary isolated particles as well as very minor meteoroid streams of low particle density (constituting the remnants of insignificant streams long dispersed). Sporadic meteors appear at any time in any part of the sky, and travel in any direction. Some five or six sporadic meteors per hour can be seen on any clear night. Meteor showers recur at about the same date each year. The meteoroids follow particular elliptical orbits around the Sun (similar to their parent comet or asteroid) and encounter the Earth at the same point in its orbit. These showers can be minor (with a low rate of activity of less than 10 meteors in an hour), or major with up to about 100 meteors an hour in certain years. Very high intensity meteor showers (at 'storm levels') are evident on occasion and coincide with the return of the parent body to perihelion. A meteor shower emanates from one direction and it appears, from a terrestrial perspective, that the trails all radiate or fan out from a given point in the sky (called the radiant). A meteor shower is named after the constellation in which this point is situated.

Some meteors are so large that they do not completely ablate during their descent through the Earth's atmosphere, and fall to the ground as *meteorites*. The passage of a meteorite may be marked by a brilliant trail of light and a loud thundering or booming noise. Meteorites can break up into small fragments which are scattered over a wide area, or alternatively land in one piece. Fireballs leave visible trails which can remain in the sky for a while before dissipating (Jones, 2007; Turk, 2001; FitzGerald, 2005; Nicolson, 1977; T.P. Cooper). A listing of meteorites seen to fall to the ground in South Africa in previous

times, or independently discovered, can be found in Prior (1923); Merrill and Foshag (1929), and in Frick and Hammerbeck (1973). See also the Meteorite Catalogue Database at the Natural History Museum website, accessed on the 3rd of July 2011 (http://www.nhm.ac.uk/jdsml/research-curation/research/projects/metcat/list.dsml?search…). McCosh (1979) indicated that reports of meteorites in southern Africa in the old days possibly gave credibility to African concepts of a solid sky, which opened to allow rain and meteorites to fall.

The Southern Sotho

One fairly early report of a nocturnal meteorite in Lesotho was in July 1878 (Widdicombe, 1895). No actual date was specified. A missionary, John Widdicombe, reported a violent explosion consisting of 'a tremendous crash', probably over Sebothoane or the Leribe Plateau and perhaps further afield. Widdicombe stated that 'the heavens were ablaze with meteors, one of which had just fallen on a huge crag'. Virtually everyone at the mission station woke up. Some of the women ran outside their huts, screaming with fright. No fragments from the fall were recovered. A second fall of a meteorite in Lesotho occurred in the 1880s. The meteorite (in this case a bolide) was described as 'brighter than the sun', and was seen just before midday on the day in question. The fall, apparently to the north east, was witnessed in the area between Khomokoana (Khomokhoana) and Ficksburg. The meteorite, according to eyewitnesses, broke up into several large pieces (Widdicombe, 1895).

A nocturnal event of some significance occurred in the evening of the 30th of April 1925 in the environs of Matatiele in the eastern Cape. It was reported that there was a 'bright light and a loud detonation' resembling thunder at about 20:00. The cause of the disturbance, which resulted in considerable dismay amongst the African population, was the break up of a meteorite. The Queen's Mercy meteorite, as it is known, was found at Queen's Mercy (Queens Mercy) to the north west of Matatiele near the border with Lesotho. The stated locality was 30º07′S 28º42′E. The meteorite described as an olivine-bronzite chondrite (H6), veined, was approximately 457 × 305 × 229 mm in size and projected some 0.3 m above the ground. A smaller fragment of the meteorite weighing 950 g was found closer to Matatiele, while a further (fractured) fragment of 315 g was discovered near the Queen's Mercy meteorite. The Queen's Mercy meteorite was broken up, evidently by the *ngaka* (herbalist/medicine-man or diviner) and distributed in small pieces to be worn on the body as a personal charm, thereby bringing good luck to those fortunate enough to receive a fragment. It seems that the 'power of heaven' was invoked in this instance, given the great rarity of the objects which had fallen from the sky. It is not impossible that another fragment discovered at the 'Moshesh Location' (30º06′S 28º43′S) near Queen's Mercy was part of the original fall of the Queen's Mercy meteorite. The fragment was described as consisting of olivine-bronzite chondrite (H). The meteorite in question, referred to as 'Moshesh', was said to weigh 180–225 kg (The Accretion Desk website, accessed on the 15th of February 2011. See: http://www.meteorite-times.com/Back_Links/2008/november/Accretion_Desk.htm).

The Zulu

The modern Zulu term for a meteor is *inkanyezi ehudayo*; while a meteorite is known as *isigaxa sensimbi esiwa esibhakabhakeni* (Doke et al., 1958). A shooting star is referred to as an *inkanyezi ecibayo* (Dent and Nyembezi, 1979). The present author was unable to discover any confirmed data on prominent meteors and meteorites (as opposed to comets) observed by the Zulu in historical times. Two more recent events are of interest. Some Zulu (depending on one's precise definition of the term *Zulu*) may have witnessed the events at Queen's Mercy. There is also a fully documented report of a meteorite which fell in the afternoon of the 1st of August 1912, near the junction of the Buffalo (uMzinyati or Mzinyathi) and Tugela (uThukela) rivers in the Nkandla district of Zululand (Stanley, 1913). The meteorite, recovered as one piece, weighed approximately 17.3 kg, and was classed as a siderite (consisting mainly of nickel and iron). According to eye witness accounts, there was a loud explosion, a spiral trail of smoke, and a 'rumbling or crackling sound'. Some Zulu stated that the descending meteorite was as bright as a star. The point of impact was very close to a (thoroughly startled) Zulu woman going about her daily tasks. Stanley (1913) also referred to a meteor at Mthatha on the 6th of August 1912, although the fall thereof was not observed.

Kidd (1906) described an old Zulu ceremony of major importance for a newly-born baby, in which the child was infused with a portion of its ancestral spirit (*idlozi*). Some bodily dirt scraped from the father's forearm and other parts of his body was mixed with special medicines. The dirt from the father contained a part of his essential personality and had an intimate, yet undefined connection with the spirit of the deceased grandfather and the people as a whole. The mixture was made to smoulder, with the baby being 'washed' in the smoke. The most vital ingredient of the medicines was a meteorite, which had to be well-burnt and ground to a fine powder. It was believed that the meteorite powder had the power: (a) of closing the anterior fontanelle of the baby's skull, (b) of strengthening and 'making firm' the bones of the skull, (c) of imparting 'vigour' to the child's mind, and (d) of making the child brave and courageous. The 'strength' of the meteorite was thought to enter the infant's whole system. The next most important ingredient involved the powdered whiskers of a leopard as well as the skin of a salamander (a lizard 'which loves extreme heat'). Also required were the claws of a lion plus other ingredients. Each medicine gave the child the special quality of the animal from which it (the medicine) was derived. The meteorite, as a rarity, was clearly of primary significance. It is probable that a suitable terrestrial rock, claimed to be a meteorite, was used when real meteorites were unavailable, i.e. virtually all of the time. Some of the powdered medicines were added to the baby's food as extra insurance. Any child which was not treated in the described manner on the day of its birth was handicapped for life, and would become a 'silly thriftless creature' and never free of trouble. This grave misfortune was due to a lack of attention by the ancestral spirits (*amadlozi*) of the people (Kidd, 1906).

The Tswana

The Tswana word for a comet and a shooting star is *motshôtshônônô* (plural = *metshôtshônônô*) (D.T. Cole). Shooting stars were said by the Tswana to foreshadow great events on Earth. A booming shooting star, in turn, indicated a good agricultural season (Clegg, 1986). The Sotho-Tswana in general believed that a meteor or shooting star

(*sedumedi*) was a sign of the impending death of a chief (Breutz, 1969). One explanation for a shooting star is that the small stars are afraid of the light of the big stars. The small stars (once the big stars have come out) move away and burn themselves up. An unknown star which suddenly appeared was a sign of sound health or a great famine. It is said that Tswana herbalists or medicine-men (*dingaka*), by using a certain device, were able to discover the place where a meteorite had landed, even if it was buried underground. A magical charm enabled the *dingaka* to chop off pieces of the meteorite. The *dingaka* then covered the hole with soil. The meteorite itself had important magical properties (Breutz, 1969).

A prominent impact crater some 40 km north of Pretoria is known by the Tswana as Tswaing [Pan] meaning 'Salty [Pan]' or 'Place of Salt' (Raper, 2004). Another name is the Pretoria Saltpan or Pretoria Soutpan. A lake with a high salinity content has formed in the crater. Salt was once mined at the site. The crater with a diameter of 1.13 km is surrounded by approximately 100 m high hills (the walls of the crater), and was formed about 200 000 years ago when a small asteroid (meteoroid) struck the Earth (South African Astronomical Observatory website: http://www.saao.ac.za/~wgssa/as2/reimold.html; Hartebeesthoek Radio Astronomy Observatory website: http://www.hartrao.ac.za/other/tswaing/tswaing.html, both accessed on the 2nd of March 2011). The Tswana resident in the vicinity once believed that a giant water serpent or snake lived in the lake. The snake was said to assist in the training of *dingaka*, and killed anyone trespassing in the crater at night (while the snake was so engaged). It was also said that a cave on the northern side of the crater rim was filled with the bones of those foolish enough to disturb the snake (Dugmore, 2006). There is nothing special about the lake and the water serpent, however. There was, and still is a firm belief in large water snakes in various water bodies in parts of South Africa (Alcock, 2010).

The Venda

The term *tshibvumedzi* refers to a 'meteor which is heard in its passage through the air, such being thought to presage the death of a chief' (van Warmelo, 1989). Stayt (1931) described a meteorite fall in 1917 which was witnessed by the Rev. G. Westphal of the Berlin Mission Society, while living at the Khalavha Mission Station in Venda. The meteorite 'burst in the middle of the day, making a strange, humming sound, followed by a crash like thunder'. This event was viewed by the Venda as a sign that Raluvhimba (the creator and sky god) was passing through the country. The Venda clapped their hands and shouted with delight. Horns were blown and trilling was heard. The cries of joy were taken up by the neighbouring Venda and 'swept in huge waves of sound' down the Nzhelele River Valley (Stayt, 1931).

The Khoikhoi and the San

The Khoikhoi thought that the Hamerkop (*Scopus umbretta*) was a special bird of ill omen, which was able to foresee death by peering into a pool of water (Miller, 1979). One of the ways in which the Hamerkop announced the imminent death of a Khoikhoi person was to watch for the falling star which prophesied death. The star fell over the area in which the doomed person lived. The bird (on seeing the star) promptly flew over the dwelling in question, uttering its odd and mournful cries. The sad news, unfortunately,

had been delivered (Miller, 1979). Another version relating to the Korana is outlined in James (2001) who cited Engelbrecht (1936) for this information. The Korana believed that the bird gave an odd cry, which was repeated three times, as it flew in the direction of some place where a person had died. Readers are reminded that the San in the eastern Kalahari (seemingly the Hiechware) regarded the Hamerkop as a lightning bird (**refer to Chapter 2**). The concept of a lightning bird is well-established in South Africa generally, although not always involving the same avian species (Alcock, 2010). The Hamerkop is a somewhat strange and sinister looking bird and is the subject of a considerable body of African folklore (Alcock, 2010). The bird has a 'bad press rating' and is usually associated with evil events. The habitat of this species consists of shallow dams, lakes and rivers, where it feeds by shuffling one foot or stamping in the mud to consume whatever suitable emerges (McLachlan and Liversidge, 1978; Sinclair and Hockey, 1996). The Hamerkop when alarmed flies away uttering its 'peculiar squeaky whistling' call. The same call is sometimes heard during periods of excitement while the bird is on the ground (McLachlan and Liversidge, 1978).

Kidd (1904) referred to the Nama in particular, who believed that a falling star was a sign that the cattle would become ill. The people cried out to a shooting star, advising it of the number of cattle they owned, and begged the star to go away. A further Khoikhoi version is that a shooting star indicated sickness amongst the stock, with the people on such occasions moving to another locality and imploring the shooting star to spare them (Hahn, 1881; Schapera, 1965).

A *!gixa* (plural = *!giten*) was a male or female /Xam magician (Schapera, 1965). A number of writers including James (2001) describe *!giten* as 'sorcerers', while others use the term 'shamans'. Such individuals had special magical powers and could be good or evil (Hewitt, 2008). A slightly different spelling given by Hewitt for *!gixa* is *!gi:xa*. The powers of the *!giten* were generally feared and respected by the /Xam, although these powers were not derived from any deity (Hewitt, 2008). Magicians, as per Schapera (1965), had different attributes. Some were rainmakers, or knew what happened at night (even when asleep) and protected the people from evil magicians. Other magicians had special powers over certain wild animals, or caused illness by shooting people with invisible arrows resulting in death even if the person was doctored. Hewitt (2008), in turn, divided magicians into three broad categories. These were rainmakers, medicine-men (or women), and those with a magical influence over specific animals (the game *!giten*). There was sometimes an overlap in functions, since it was usual for game magicians to also cure illness. Curing by the *!giten* took place while they were in a state of trance. All three types of *!giten* had the ability to protect and guard the people at night (Hewitt, 2008).

An earthquake occurred when a /Xam magician died (Schapera, 1965). The heart of the dead magician fell out of the sky as a shooting star, straight into a waterhole (Schapera, 1965). A falling star according to Hollmann (2007) signified the death of a sorcerer (who brought illness). The star was the heart of the sorcerer. The light of the star was fire, with the star falling into a waterhole to cool itself, thereby making a noise like falling rain. A very similar /Xam belief, as per Schapera (1965), was that the human heart was thought to fall down after death in the form of a shooting star, with the hair of the deceased being

changed into clouds, and with his gall appearing as a green colour in the sky. A related /Xam belief was that the stars knew the time when someone died (Schapera, 1965; James, 2001). A falling star was an indication that something bad had happened (i.e. a death had occurred nearby). The Hamerkop saw the reflection of the falling star in the waterhole. The bird responded to the falling star by flying to a /Xam settlement and calling out to announce the grim news (Schapera, 1965; James, 2001). The people in the settlement then asked the Hamerkop to take its news away and to 'plunge' the news into the Orange River (with its 'shining stars', i.e. the reflection of the stars in the water) (James, 2001). News of the death was brought to the /Xam settlement soon afterwards by /Xam informants. The Hamerkop was thus not a deceiver, since it would not tell the people something it did not know. James was of the opinion that the story could be viewed as 'comforting' the /Xam by indicating that their death would not go unnoticed, in a manner linking human life, the habitat and the sky. The story also serves as a useful means of explaining the behaviour of the Hamerkop and the infrequent occurrence of shooting stars. The waterhole is a place of both life and death (James, 2001). A waterhole as we saw in **Chapter 2** was where Rain lived (a supernatural being which had the form of a rain-animal). Two Hamerkop stories are given in Von Wielligh (Deel I: 1921 and Deel II: 1920).

The !Kung likewise once believed that a shooting star heralded death (Schapera, 1965). Falling or shooting stars (meteorites) plunge to Earth and are turned into an insect, specifically: Antlion or Mierleeu larvae (Order: Neuroptera, Family: Myrmeleontidae) (Marshall, 1962). These insects, with their characteristic small cone-shaped traps in the sand catch and eat ants, and are common in the Nyae Nyae area. The !Kung thought that the 'bite' of a fallen star caused death the next day for the person who had been bitten. No harm came from the bite, however, if the star liked that person and wanted to spare them (Marshall, 1962).

Marshall (1999) confirmed that the !Kung at Nyae Nyae still associate sickness and death with falling stars (more properly termed 'moving stars' by the !Kung). One concept is that moving stars are 'fiery' objects with fiery tails, and have powerful supernatural potency or *n/um*. Moving stars can kill people. The sky is said to be 'very bad' during meteor showers with numerous moving stars evident. The people know that somewhere many people are dying (i.e. many meteors = many deaths). A second concept is that moving stars are antlions. The moving stars in the sky, looking down with their big shining eyes, see ants on the ground. The moving stars, if hungry, fall to Earth to consume the ants. A variant is that all the antlions are said to fall to Earth every morning and subsequently return to the sky that night. The !Kung see the antlions as insects during the day. A contemporary !Kung (folklore) belief is that a person dies if bitten by an antlion in the shape of an insect. Some informants thought that the person would die the next day, with others maintaining that death would occur within that year. One informant was puzzled by the fact that he only saw a few moving stars in the sky, although there are many antlions on the ground (Marshall, 1999). Rogers (2007) in a later report, found that the !Kung at Nyae Nyae continue to regard very bright meteors (fireballs or bolides) as a cause for concern. Burning sticks are thrown into the air in the direction of the meteor, while curses are uttered to try to divert the path of the meteor. These fireballs or bolides make a sound like thunder, have strong *n/um*, and can bring illness (Rogers, 2007).

Some !Xõ fear a meteor which they believe is a sign that a person has died, with others rejecting this interpretation (Heinz, 1975). Yet other !Xõ maintain that meteors (meteorites) may fall down and kill them, and dislike the idea that falling stars 'run away' from the rest of the stars (Heinz, 1975). Marshall (1999) stated that the !Xõ, the Naron or Nharo and the Tshimbaranda !Kung (an !O Kung group in southern Angola) do not have any folklore about falling stars eating ants. The Naron and the Tshimbaranda !Kung, further, have no folklore about falling stars being signs or causes of death (Marshall, 1999). Note that Marshall (1986) referred to the Tshimbaranda !Kung as the Chimbaranda !Kung.

A G/wi informant indicated that falling stars are no different from other stars, and that all stars eat ants (Marshall, 1999). The stars fall to the ground when hungry to eat the ants on the ground. Fallen stars, according to the G/wi, are 'little things' resembling tiny porcupines when seen on the ground. They have small legs, ears and teeth, and are covered in tiny spines. These stars can easily be killed by snakes or scorpions, or simply die after a time. The skin of the dead star, looking like a small porcupine skin, then lies on the ground. It was not advisable to step on the skin, since illness from the skin will enter that person. The skin, nevertheless, provided a cure for the affliction. A shaman or medicine-man, in such cases, took the star skin and pulled out some of the spines. The shaman made a small bundle of the spines and used these spines to scratch himself on the chest, shoulders and the tip of his tongue. This procedure empowered the shaman to suck out the star sickness, thereby curing the ill person (Marshall, 1999).

PERSONAL COMMUNICATIONS

Ambrose, D., April 2011. (The compiler of the Lesotho Annotated Bibliography, which is periodically updated. The compiler is currently resident in Ladybrand.)

Bailey, R., December 2010. (A linguist in the discipline of Speech-Language Pathology, University of KwaZulu-Natal, Westville.)

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APPENDIX A
Data illustrating the sighting of Mars, Jupiter, Saturn, Venus and Mercury during designated periods

The naked-eye visibility of the four planets varies from year to year. Data after Mack (1996). The selected time-span is primarily to indicate certain characteristics of the planets, and does not reflect long-term data. The notation used in the tables for Mars, Jupiter and Saturn in respect of the years 1990–1995 is as follows:

(a) Visible in the morning sky = ●
(b) Visible in the evening sky = ❑
(c) Visible all night = ★
(d) Not visible = cell left blank

Mars

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
1990	●	●	●	●	●	●	●	●	●	★	★	★
1991	★	❑	❑	❑	❑	❑	❑	❑	❑			
1992	●	●	●	●	●	●	●	●	●	●	●	★
1993	★	★	❑	❑	❑	❑	❑	❑	❑	❑		
1994			●	●	●	●	●	●	●	●	●	●
1995	★	★	★	❑	❑	❑	❑	❑	❑	❑	❑	❑

Jupiter

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
1990	★	★	❑	❑	❑	❑		●	●	●	●	★
1991	★	★	★	❑	❑	❑	❑		●	●	●	●
1992	★	★	★	★	❑	❑	❑	❑		●	●	●
1993	●	★	★	★	★	❑	❑	❑	❑		●	●
1994	●	●	★	★	★	★	❑	❑	❑	❑		●
1995	●	●	●	★	★	★	★	❑	❑	❑	❑	

Saturn

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
1990		●	●	●	●	★	★	★	❑	❑	❑	❑
1991		●	●	●	●	★	★	★	★	❑	❑	❑
1992			●	●	●	★	★	★	★	❑	❑	❑
1993	❑		●	●	●	●	★	★	★	★	❑	❑
1994	❑		●	●	●	●	★	★	★	★	❑	❑
1995	❑	❑		●	●	●	●	★	★	★	❑	❑

Venus

The notation for Venus for the years 1990–1995 is as indicated:

(a) Visible in the morning sky = ●
(b) Visible in the evening sky = ❑
(c) Not visible = cell left blank

Special cases:

Venus at M1 *was an evening object for the first third of the month; could not be seen for the second third of the month, and was a morning object for the last third of the month.*
Venus at M2, M5 and M7 *was invisible for the first third of the month, and was then an evening object for the rest of the month.*
Venus at M3 and M6 *was an evening object for the first two-thirds of the month, and could not be seen for the last third of the month.*
Venus at M4 and M9 *was a morning object for two-thirds of the month, and was not visible for the last third of the month.*
Venus at M8 *was invisible for the first third of the month, and was a morning object for the remaining two-thirds of the month.*

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
1990	M1	●	●	●	●	●	●	●	●			❑
1991	❑	❑	❑	❑	❑	❑	❑	M6	●	●	●	●
1992	●	●	●	●	M4		M5	❑	❑	❑	❑	❑
1993	❑	❑	M3	●	●	●	●	●	●	●	●	M9
1994		M2	❑	❑	❑	❑	❑	❑	❑	❑	M8	●
1995	●	●	●	●	●	●	●		M7	❑	❑	❑

Mercury

The visibility and position of Mercury at greatest elongation for the years 1990–1995 is given below. There were four appearances of Mercury in the morning sky in 1991. Data after Mack (1996).

Mercury seen in the morning sky on the eastern horizon

- 1st of February 1990
- 31st of May 1990
- 24th of September 1990

- 14th of January 1991
- 12th of May 1991
- 7th of September 1991
- 27th of December 1991

- 23rd of April 1992
- 21st of August 1992
- 9th of December 1992

- 5th of April 1993
- 4th of August 1993
- 22nd of November 1993

- 19th of March 1994
- 17th of July 1994
- 6th of November 1994

- 1st of March 1995
- 29th of June 1995
- 20th of October 1995

Mercury seen in the evening sky on the western horizon

- 13th of April 1990
- 11th of August 1990
- 6th of December 1990
- 27th of March 1991
- 25th of July 1991
- 19th of November 1991
- 9th of March 1992
- 6th of July 1992
- 31st of October 1992
- 21st of February 1993
- 17th of June 1993
- 14th of October 1993
- 4th of February 1994
- 30th of May 1994
- 26th of September 1994
- 19th of January 1995
- 12th of May 1995
- 9th of September 1995.

The apparent magnitude and colour of the 21 brightest stars in the southern African sky

The data were extracted from Jones (2007), with two entries taken from Cliff (2001). The latter are identified by an asterisk. The values for apparent magnitude may vary slightly, depending on the source consulted. An astronomical complication is that of variable stars, namely, stars which have a changing (not fixed) apparent magnitude. Such variations may occur on a regular or irregular basis. One example of a variable star is Betelgeuse. The approximate colour of the stars, as derived from Bernhard et al. (1959) and as 'seen by the eye', is provided in italics. The colour of the stars is sometimes very difficult to specify due to atmospheric conditions at the time of observation, and the visual acuity of individual observers. A further difficulty is that the colours given in Bernhard et al. (1959) are based mainly on the corresponding spectral type, although the apparent colour of a particular star does not always rigidly follow the spectral type. Information from Mayall and Mayall (1954), for certain stars, is given by comparison (in square brackets, no italics). The colours as per Mayall and Mayall are probably as seen with an optical instrument. The reader will note several differences of opinion. This may be a matter of tints, rather like household paints. Personal observation with the naked eye, over a period of time, is best. One final problem concerns the colours of double stars viewed through a telescope and reported as such, as opposed to the same stars seen as one star with the naked eye. An example is alpha Centauri.

- **The Sun:** (–26.72)*
- **Sirius:** constellation of Canis Major (–1.46) *bluish* [brilliant white]
- **Canopus:** constellation of Carina (–0.72) *yellow-white*
- **Alpha Centauri, also known as Rigil Kentaurus or Tolliman:** constellation of Centaurus (–0.27)*. The value in this case incorporates both alpha Centauri A and alpha Centauri B. Jones (2007) gives separate values, namely: –0.01 for alpha Centauri A and +1.33 for alpha Centauri B. *The colour of alpha Centauri is yellow or orange*.
- **Arcturus:** constellation of Boötes (–0.04) *orange-yellow* [golden yellow]
- **Vega:** constellation of Lyra (+0.03) *bluish-white* [pale sapphire]

- **Capella:** constellation of Auriga (+0.08) *yellow* [white]
- **Rigel, also known as Algebar:** constellation of Orion (+0.12) *bluish-white* [bluish-white]
- **Procyon:** constellation of Canis Minor (+0.38) *yellow-white* [yellowish-white]
- **Achernar:** constellation of Eridanus (+0.46) *bluish*
- **Betelgeuse:** constellation of Orion (+0.5) *reddish* [orange]
- **Beta Centauri, also known as Agena or Hadar:** constellation of Centaurus (+0.61) *bluish*
- **Altair:** constellation of Aquila (+0.77) *yellow-white* [yellow]
- **Alpha Crucis, also known as Acrux:** constellation of Crux (+0.8). The value here incorporates both alpha^{1} Crucis and alpha^{2} Crucis. Jones (2007) gives the value for alpha^{1} Crucis as +1.33. The value for alpha^{2} Crucis is +1.8 resulting in a combined value for both of +0.8 (http://stars.astro.illinois.edu/sow/bright.html, accessed on the 29th of June 2012). *The colour of alpha Crucis is bluish*.
- **Aldebaran, also known as Palilicium:** constellation of Taurus (+0.85) *orange* [pale rose]
- **Antares:** constellation of Scorpius (+0.96) *reddish* [fiery red]
- **Spica:** constellation of Virgo (+0.98) *bluish* [brilliant flushed-white]
- **Pollux:** constellation of Gemini (+1.14) *yellow* [orange or very yellow]
- **Fomalhaut:** constellation of Piscis Austrinus (+1.16) *white* [reddish]
- **Beta Crucis, also known as Mimosa or Becrux:** constellation of Crux (+1.25) *bluish*
- **Regulus:** constellation of Leo (+1.35) *bluish-white* [flushed-white].

The distance of the six naked-eye planets and Earth from the Sun (× 10^{6} or 1 000 000 km)

Uranus is on the borderline of naked-eye visibility. Some observers are able to see Uranus on a clear and dark night without the use of optical equipment, while most cannot.

- **Mercury** = 57.9 (mean); perihelion = 46.0; aphelion = 69.8
- **Venus** = 108.2 (mean); perihelion = 107.5; aphelion = 108.9
- **Earth** = 149.6 (mean); perihelion = 147.1; aphelion = 152.1
- **Mars** = 227.9 (mean); perihelion = 206.6; aphelion = 249.2
- **Jupiter** = 778.3 (mean); perihelion = 740.5; aphelion = 816.6
- **Saturn** = 1 427 (mean); perihelion = 1 352.6; aphelion = 1 514.5
- **Uranus** = 2 870 (mean); perihelion = 2 741.3; aphelion = 3 003.6 (Jones, 2007; Nicolson, 1977).

The maximum apparent magnitude of the naked-eye planets and the Full Moon

The information below refers to optimum viewing circumstances, and was drawn from FitzGerald (2005) with the one stated exception.

- **Mercury** –1.9
- **Venus** –4.7
- **Mars** –2.8
- **Jupiter** –2.6
- **Saturn** –0.3
- **Uranus** +5.6
- **Full Moon** –12.7 (Nicolson, 1977).

African lunar months versus western calendar months in South Africa

The difficulties of matching African lunar months and western calendar months are demonstrated below. The data-span in 20-year increments encompasses the years 1830; 1850; 1870; 1890; 1910 and 1930 in South Africa (calculated for Johannesburg). The dates of New Moon are provided for each calendar month of the respective year.

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
1830	24	23	24	23	22	20	20	18	17	16	15	15
1850	13	12	14	12	12	10	9	7	6	5	4	3
1870	2; 31	None	2	1; 30	30	29	28	26	25	24	23	22
1890	21	19	20	19	18	17	17	15	14	14	12	12
1910	11	10	11	9	9	7	6	5	3	3	2	1; 31
1930	29	28	30	28	28	26	25	24	22	21	20	20

It is readily apparent that the dates of New Moon vary considerably over time for any particular month. It could not be expected that the African observer in the old days would have been aware of the difference in timing of the New Moon appearing say, on the 13th of January 1850 (*almost mid-month*) and later on in *the first few days of the month* (the 3rd of December 1850). A rare month with no New Moon, such as February 1870, may have caused a degree of confusion for an extremely astute observer, unless the sky had been overcast for some days. The data were extracted from the timeanddate.com website, accessed on the 8th of August 2011. (See: http://www.timeanddate.com/calendar/?year=1830&country=62. The required year should be inserted in the address, for example 1850, instead of 1830.) The degree of accuracy of the phases of the Moon is stated to be usually within 1 minute of the correct time, although in a few very select cases the wrong date might be given, where the Moon phase is just around midnight.

APPENDIX B
Two simple techniques, suitable for schools, to stimulate an interest in the heavens

Determining the solstices and equinoxes

Find suitable terrain with an open view to the east and west, and with a level surface for about 5 m in all directions (Rodgers, 2007). Place a ball with a diameter of about 10 cm, which is larger than a tennis ball, on a wooden or metal stake sharpened at both ends. Insert the ball on one end of the stake and firmly secure the other end in the ground. The stake should have a height of about 1.5–2 m above the ground surface.

The solstices

Mark the shadow of the ball on the ground, every half-hour or hourly, from sunrise to sunset, on a day or two close to the winter and/or summer solstice (i.e. around the 19th of June and the 20th of December). The centre of the shadow marks should be recorded on the ground by means of charcoal, chalk or sections of wood or straight plastic sticks. The best procedure, to highlight the marks, is to insert the sticks through small pieces of white cardboard. The cardboard must be flush with the ground. Join the marks with a piece of string, whereupon a pronounced curve becomes evident. If the process is repeated on a monthly basis, it will be seen that the curvature decreases as the year progresses towards the equinox.

The equinoxes

Repeat the shadow marking procedure every half-hour or hourly on the 19th to the 24th of the month for the March and September equinoxes. Use string to join up the marks. A slight curve will be seen, until a straight line becomes apparent on the day of the equinox. This straight line lies in a true east-west direction. In the days following the equinox, a curved line is once again observed. This curve can be thought of as a round-bottomed 'V'. The curve points *away* from the Sun in summer and *towards* the Sun in winter (Rodgers, 2007).

Finding approximate true south and the time by using the Southern Cross

The stars forming the Southern Cross are named (in astronomical terms) from the longest axis in a *clockwise* direction, namely: alpha Crucis, beta Crucis, gamma Crucis and delta Crucis. There is also a fifth faint star known as epsilon Crucis. This constellation is best observed in winter. One method of finding approximate true south is to imagine a line (a) drawn through the longest axis of the Southern Cross, which intersects another line (b) drawn from the middle of the two Pointers, and at a right angle to the Pointers. Where the two lines join, a third vertical line (c) is drawn to meet the horizon at right angles (Standing Conference of National Voluntary Youth Organisations in Rhodesia, 1971). A different method is to extend the longest axis of the Southern Cross by 4½ times its length,

in the direction of its longest point. Another line intersecting this extended line, and which meets the horizon at right angles, indicates approximate true south. Care should be taken to avoid confusing the Southern Cross and the False Cross. The latter is situated quite close to the Southern Cross, but lacks the two Pointer stars (alpha Centauri and beta Centauri). A further directional indicator, in summer, is Orion's Belt which always rises due east and sets due west (Turk, 2001).

The Southern Cross can be used as a celestial clock, although only when in an optimum position and clearly visible in the night sky. There are a number of practical difficulties in attempting this exercise, however. Further details on the problems of using the Southern Cross as a clock can be found in Jackson (1949) and in McIntyre (1949).

APPENDIX C
The length of daylight in South Africa

The table on the following page provides abridged data on the times of sunrise and sunset for Cape Town, Bloemfontein, Durban, Port Elizabeth and Johannesburg. A simple calculation can be used for five other cities. The information was drawn from Weather Bureau (1982) as well as the South African Council for Scientific and Industrial Research and the Science Research Council of the United Kingdom (1973). The data were calculated for the year 1942 (midway between leap years). The small variation due to the leap year cycle was ignored. Note that South African Standard Time or SAST is based on the standard meridian for South Africa (i.e. a longitude of 30°E). The times given in the table refer to the 20th century, and serve as an approximation for the 19th century (collectively the main period of record for this book).

Further pertinent sources include the South African Astronomical Observatory website which has information on present and past times of sunrise/sunset and moonrise/moonset for various places in South Africa, together with other useful astronomical data. See: http://www.saao.ac.za/public-info/sun-moon-stars. Another source with the same data is the timeanddate.com website. See: http://www.timeanddate.com/worldclock/sunrise.html. Current data on day length can likewise be obtained by consulting the Data Services — Naval Oceanography Portal website: http://www.usno.navy.mil/USNO/astronomical-applications/data-services/data-services. The co-ordinates (latitude and longitude) of your locality must be specified when using the website.

The approximate times of sunrise and sunset, for the following cities, can be calculated by using a small adjustment to the table:

- *East London:* ***Subtract*** *10 minutes from Port Elizabeth time;*
- *Pretoria:* ***Subtract*** *1 minute from Johannesburg time;*
- *Kimberley:* ***Add*** *6 minutes to Bloemfontein time;*
- *Mafikeng:* ***Add*** *10 minutes to Johannesburg time;*
- *Pietermaritzburg:* ***Add*** *2 minutes to Durban time.*

Times of sunrise and sunset at selected South African cities

Month	Day	Cape Town		Bloemfontein		Durban		Port Elizabeth		Johannesburg	
		Rises	Sets	Rises	Sets	Rises	Sets	Rises	Sets	Rises	Sets
January	1	0539	2001	0521	1917	0459	1901	0511	1933	0520	1904
	8	0544	2001	0525	1918	0503	1902	0516	1933	0524	1905
	15	0550	2000	0530	1918	0509	1901	0522	1932	0529	1905
	22	0557	1957	0536	1916	0515	1859	0529	1929	0535	1903
	29	0604	1955	0543	1914	0522	1857	0536	1927	0541	1901
February	5	0611	1949	0549	1910	0528	1852	0543	1921	0546	1858
	12	0618	1942	0554	1905	0533	1847	0550	1914	0551	1853
	19	0625	1934	0559	1858	0539	1840	0557	1906	0555	1848
	26	0631	1927	0605	1851	0545	1832	0603	1859	0600	1842
March	5	0637	1918	0609	1844	0549	1826	0609	1850	0603	1835
	12	0642	1910	0613	1837	0553	1818	0614	1842	0607	1828
	19	0647	1901	0617	1829	0558	1810	0619	1833	0611	1821
	26	0652	1849	0621	1819	0602	1800	0624	1821	0613	1813
April	2	0658	1840	0626	1812	0607	1752	0630	1812	0617	1806
	9	0703	1832	0628	1805	0610	1745	0635	1804	0620	1759
	16	0709	1823	0633	1757	0615	1737	0641	1755	0624	1752
	23	0714	1815	0637	1749	0619	1729	0646	1747	0627	1745
	30	0719	1808	0641	1744	0624	1723	0651	1740	0630	1740
May	7	0725	1800	0645	1737	0628	1716	0657	1732	0634	1735
	14	0730	1754	0650	1732	0633	1711	0702	1726	0638	1730
	21	0735	1750	0654	1729	0637	1708	0707	1722	0642	1728
	28	0739	1747	0658	1726	0641	1705	0711	1719	0645	1725
June	4	0743	1744	0701	1724	0644	1703	0715	1716	0648	1723
	11	0747	1744	0704	1724	0648	1703	0719	1716	0651	1723
	18	0750	1744	0706	1725	0650	1703	0722	1716	0653	1724
	25	0751	1745	0708	1727	0651	1705	0723	1717	0655	1726
July	2	0752	1748	0709	1729	0652	1707	0724	1720	0656	1728
	9	0751	1751	0708	1732	0652	1710	0723	1723	0655	1731
	16	0749	1755	0707	1735	0650	1714	0721	1727	0654	1734
	23	0745	1800	0704	1739	0647	1718	0717	1732	0651	1738
	30	0740	1804	0700	1743	0643	1722	0712	1736	0647	1741
August	6	0735	1809	0655	1746	0638	1726	0707	1741	0643	1744
	13	0728	1815	0649	1750	0632	1730	0700	1747	0638	1747
	20	0720	1819	0642	1754	0625	1734	0652	1751	0632	1751
	27	0712	1824	0636	1757	0618	1737	0644	1756	0626	1753
September	3	0703	1829	0628	1801	0610	1742	0635	1801	0619	1756
	10	0653	1833	0620	1805	0601	1745	0625	1805	0611	1759
	17	0643	1838	0611	1808	0552	1749	0615	1810	0604	1802
	24	0634	1844	0603	1812	0544	1753	0606	1816	0556	1805
October	1	0625	1848	0556	1816	0536	1757	0557	1820	0549	1807
	8	0616	1853	0547	1819	0528	1801	0548	1825	0542	1811
	15	0606	1859	0539	1824	0519	1806	0538	1831	0535	1815
	22	0557	1904	0531	1828	0511	1810	0529	1836	0527	1818
	29	0550	1910	0526	1833	0505	1816	0522	1842	0522	1822
November	5	0543	1917	0520	1838	0459	1821	0515	1849	0517	1827
	12	0537	1924	0515	1844	0454	1827	0509	1856	0513	1832
	19	0533	1931	0511	1850	0450	1833	0505	1903	0510	1837
	26	0530	1937	0509	1855	0448	1838	0502	1909	0508	1842
December	3	0528	1943	0509	1900	0447	1844	0500	1915	0508	1847
	10	0528	1949	0510	1905	0448	1849	0500	1921	0509	1852
	17	0530	1954	0512	1910	0450	1854	0502	1926	0511	1857
	24	0533	1958	0515	1914	0453	1858	0505	1930	0514	1901
	31	0538	2000	0520	1916	0458	1900	0510	1932	0519	1903

APPENDIX D
Supplementary information on South African and other sources of astronomical data

Planetaria

- **Iziko Planetarium**, Cape Town. The planetarium forms part of the Iziko: South African Museum. Phone 021 481 3900. Website: http://www.museums.org.za/planetarium.
- **Johannesburg Planetarium**, Johannesburg. The planetarium is linked to the University of the Witwatersrand. Phone 011 717 1392. Website: http://www.planetarium.co.za.

Professional observatories

- **Boyden Observatory**, Mazelspoort (near Bloemfontein). The observatory is managed by the University of the Free State. Phone 051 401 2924. Website: http://www.uovs.ac.za/boyden.
- **Hartebeesthoek Radio Astronomy Observatory (HartRAO)**, a national research facility in the Krugersdorp district. Phone 012 301 3100. Website: http://www.hartrao.ac.za.
- **Indlebe Radio Telescope**, Durban. A developing radio telescope facility at the Durban University of Technology. Phone 031 373 2932. Website: www.dut.ac.za.
- **Karoo Array Telescope (KAT)**, a developing national research facility near Carnarvon in the northern Cape. Phone 011 442 2434. Website: http://www.ska.ac.za/kat/index.html *or* http://www.ska.ac.za/newsletter.
- **Nooitgedacht Observatory**, near Potchefstroom. The observatory is a teaching and research facility of North-West University. Phone 018 299 2408 or 082 903 2388 or 084 742 0051.
- **South African Astronomical Observatory (SAAO)**, Cape Town. This is a national facility with headquarters in Cape Town, and with an observing station at Sutherland in the northern Cape. Sutherland is also the site of the Southern African Large Telescope (SALT) which is the largest single optical telescope in the southern hemisphere. Phone 021 447 0025 (Cape Town) and 076 900 0308 or 023 571 2436 (Sutherland). Websites: http://www.saao.ac.za *and* http://www.salt.ac.za.
- **UNISA Observatory**, a teaching and research facility of the University of South Africa in Pretoria. Phone 012 429 6612 or 012 429 6345. Website: http://astro.unisa.ac.za/~uniobs.

  Visitors should make arrangements *before* arriving at the astronomical facility. A number of observatories and the planetaria have special days set aside for visitors, while

other facilities are prepared to accommodate interested groups only by appointment. The planetaria have outreach programmes for schools as well as the general public.

Some private and amateur fixed position observatories

- **Cederberg Observatory**, Cederberg. Phone 021 913 4200 or 021 531 5250. Website: http://www.cederbergobs.org.za.
- **Chloe Mountain Astronomical Observatory**, Henley-on-Klip. Phone 016 366 0955 or 076 562 2951.
- **Port Elizabeth People's Observatory**, corner of Westview Drive and MacFarlane Road, Port Elizabeth. Website: http://home.intekom.com/franlet/astronomypage95.htm.
- **Prince Albert Observatory**, Prince Albert. Phone 044 871 2009 or 072 641 9657. Website: http://www.astrotours.co.za.
- **Space Centre**, Port Edward. Phone 039 311 2891 or 073 196 9694.

Several organizations operate mobile observatories, usually on a fee-paying basis, which are not listed here. Further enquiries in this regard should be made at one of the facilities listed above, or the relevant astronomical society given below.

Science centres

There are several science centres and museums in South Africa which may offer some basic instruction in astronomy for schools and the general public. A portable and inflatable igloo-shaped planetarium (StarLab) can be supplied for this purpose, on request, by the South African Agency for Science and Technology Advancement in Johannesburg (an agency of the National Research Foundation). The website address is: http://www.saasta.ac.za. Science centres where astronomy shows are presented on a fairly regular basis include the following:

- **Cape Town Science Centre**, Cape Town. Phone 021 300 3200 or 083 276 9501. Website: http://www.ctsc.org.za.
- **Johannesburg Observatory**, Johannesburg. The observatory is a business unit of the National Research Foundation. Phone 011 551 5940. Website: http://www.saasta.ac.za.
- **Old Mutual-MTN Science Centre** (currently the **KZN Science Centre**), uMhlanga. Phone 031 566 8040. Website: http://kznsc.org.
- **Sci-Bono Discovery Centre**, Johannesburg. Phone 011 832 3360. Website: http://www.sci-bono.co.za.
- **Unizul Science Centre**, Richards Bay. The centre is part of the University of Zululand. Phone 035 797 3204 or 082 452 8566. Website: http://scictr.uzulu.ac.za.

A list of science centres and museums offering general scientific instruction can be found on the Southern African Association of Science and Technology Centres website (http://www.saastec.co.za) as well as on the South African Agency for Science and Technology Advancement website (http://www.saasta.ac.za).

Astronomical societies

- **Astronomical Society of Southern Africa (ASSA)**
  There are eight autonomous branches of the Society in South Africa. Details can be obtained by visiting the official homepage of the Society. See: http://www.assa.saao.ac.za. The respective centres are: **Cape Centre** (Cape Town); **Hermanus Centre** (Hermanus); **Garden Route Centre** (Sedgefield); **Bloemfontein Centre** (Bloemfontein); **Durban Centre** (Durban); **KwaZulu-Natal Midlands Centre** (Pietermaritzburg); **Johannesburg Centre** (Johannesburg), and **Pretoria Centre** (Pretoria).

- **Astrosoc (Rhodes University Astronomy Club)**, c/o the Department of Physics and Electronics, Rhodes University, Grahamstown. Phone 046 603 8111 and ask for the required department. Website: http://astrosoc.soc.ru.ac.za.

- **East Rand Astronomy Club**, Benoni. Phone 011 717 1397. Website: http://www.eastrandastronomy.co.za.

- **Friends of Boyden Observatory**, Bloemfontein. Phone 051 436 7555. Website: http://www.assabfn.co.za/friendsofboyden.

- **Orion Observasie Groep**, Cape Town. Phone 021 460 9334. Website: http://www.saao.ac.za/~wpk/oog.

- **Port Elizabeth People's Observatory Society**, Port Elizabeth. See above.

- **South Peninsula Astronomy Club**, Fishhoek. Phone 021 785 3713 or 072 173 7527.

- **Soutpansberg Astronomy Club**, Louis Trichardt. Phone 015 516 3110 or 079 148 4934. Website: http://www.astronomical.co.za *or* http://www.astronomical.co.za/Soutpansberg_Astronomy_Club.htm.

- **Stargazers Club**, Stellenbosch. Phone 021 852 9913 or 082 569 3544. Website: http://www.stargazersclub.org.

- **Sterreklub van Orania**, Orania. Phone 053 207 0231 or 083 301 3802.

- **UCT Astronomy Club**, c/o the Department of Astronomy, University of Cape Town, Cape Town. Phone 021 650 5830. Website: http://www.ast.uct.ac.za/node/32.

- **West Rand Astronomy Club**, Witpoortjie. Phone 082 925 6147. Website: http://www.wrac.org.za.

General South African astronomical information

A number of essentially non-specialist and popular books have been published on astronomy in South Africa in recent years. ASSA itself publishes an annual *Sky Guide* (an astronomical handbook for southern Africa) as well as the peer-reviewed *Monthly Notes of the Astronomical Society of Southern Africa* [*MNASSA*]. The following is a list of books suitable for a general audience:

- Barbour, R., 2010. *Look at the Stars! Stargazing with Binoculars for Newcomers & Others*, Multi Maths Marketing, Howick, 64 pp.
- Bondietti, J.S., 1983. *The Beginner's Guide to the Southern Stars*, South African Museum, Cape Town, 22 pp. + app.
- Buckley, D., Lombard, M., Lomberg, M., Meiring, K. and Theron, R., 2005. *Africa's Giant Eye: Building the Southern African Large Telescope*, SALT Foundation, [Cape Town], 192 pp.
- Cillié, G. and Wargau, W., 1985. *Halley se Komeet, 1985/6*, University of South Africa, Pretoria, 118 pp.
- Conradie, F., 2006. *Stargazing for the Novice*, CPD Print, Pretoria, 72 pp.
- De Klerk, J.H. (ed), 1990. *Sterrekunde Woordeboek met Aanvullende Inligting en Bylaes / Dictionary of Astronomy with Supplementary Information and Appendices*, [National Terminology Services of the Department of National Education, Potchefstroom], various pages.
- De Villiers, C.W., 1969. *Ons Wonderlike Heelal*, Cape and Transvaal Printers, Cape Town, 102 pp.
- Du Preez, A.J., 2006. *A Cosmic Window: a General Theory on Cosmic Dynamics*, JDS Publishers, Pretoria, 81 pp.
- Fairall, A., 2001. *Cosmology Revealed: Living Inside the Cosmic Egg*, Springer-Verlag, Berlin, 147 pp.
- Fairall, A., 2002. *Cape Town Planetarium's Starwatching: a Southern Hemisphere Guide to the Galaxy*, Struik, Cape Town, 96 pp.
- Fairall, A., 2006. *Stargazing from Game Reserves in Southern Africa*, Struik Nature, Cape Town, 72 pp.
- Fairall, A., 2009. *Starwise: a Beginners Guide to the Universe*, Struik, Cape Town, 64 pp.
- FitzGerald, M., 2005. *Stars of the Southern Skies: an Astronomy Field Guide*, Witwatersrand University Press, Johannesburg, 120 pp.
- Hofmeyr, W.L., 1999. *Die Ruimte Waarin en die Aarde Waarop Ons Verkeer*, published by the author, Pretoria, 155 pp.

- Hughes, C., 2012. *Flowers in the Sky: a Celebration of Southern African Starlore*, published by the author, Somerset West, 96 pp.
- Jansen, A., 2004. *Star Maps for Southern Africa: an Easy Guide to the Night Skies*, Struik, Cape Town, 136 pp.
- Jonsson, U., 1988. *Stars over Botswana: an Observers Guide to the Night Sky*, UPUB, Botswana, 45 pp.
- Lange, W., 2007. *From Sea to SALT*, Lupus, Cape Town, 78 pp.
- Long, A.W., [1922]. *The Constellations as Seen From South Africa on Any Night in the Year*, Juta, Cape Town, 33 pp.
- Long, A.W., 1941. *Sterrekunde vir Skole*, N.P.B., Cape Town, 214 pp.
- Mack, P., 1996. *Night Skies*, fourth edition, Struik, Cape Town, 80 pp. A revised and updated edition of the book entitled: *Guide to Night Skies of Southern Africa* was published in 2012. The book is also available in Afrikaans.
- Mack, P. and Sperbund, S., 1985. *Halley's Comet: a Daily Guide for Southern Africa*, Centaur, Cape Town, 16 pp.
- Medupe, R., 2009. *Children of the Stars*, Cambridge University Press, Cape Town, various pages. (The book is aimed at primary schools.)
- Medupe, R., 2009. *Stars in the African Skies*, Cambridge University Press, Cape Town, various pages. (The book is suitable for primary schools.)
- Moodie, P. and Zwane, K., 2004. *Science for All: Grade 6 Learner's Book*, Macmillan South Africa, Johannesburg, 121 pp. (One chapter in the book refers to astronomy in terms of primary school education.)
- Moodie, P. and Zwane, K., 2004. *Science for All: Grade 6 Teacher's Book*, Macmillan South Africa, Johannesburg, various pages. (Two chapters in the book deal with astronomy, both from a teaching and learning perspective.)
- Moore, P., 1972. *The Southern Stars*, H.B. Timmins, Cape Town, 159 pp.
- Moore, P. and Collins, P., 1977. *The Astronomy of Southern Africa*, Howard Timmins, Cape Town, 160 pp.
- Quarmby, R., 1965. *Our Southern Sky*, Purnell, Cape Town, 128 pp.
- Quarmby, R., 1966. *Ons Suiderhemel*, Human and Rousseau, Cape Town, 128 pp.
- Quarmby, R., 1985. *Halley's Comet in South Africa: October 1985 – May 1986*, Delta, Johannesburg, 55 pp.
- Rijsdijk, C. and Dilley, L., 2005. *Let's Explore Beyond the Earth: Interactive Atlas and Map Skills*, Maskew Miller Longman, Cape Town, 72 pp. (The publication is a teacher's source book on astronomical resources, and is based on the South African Astronomical Observatory outreach programme. Note that the Western Cape Primary

Science Programme (PSP) has compiled a set of 16 African Skies Astronomy Cards for grades 4–9 in order to assist science teachers. Further resource material for teachers is also available with regard to astronomy. See: http://www.psp.org.za.)

- Turk, C., 2001. *Sasol First Field Guide to Skywatching in Southern Africa*, Struik, Cape Town, 57 pp. (The book has been revised and reprinted several times.)
- Turk, C., 2001. *Understanding Eclipses*, Struik, Cape Town, 64 pp.
- Van Zyl, J.E., 1993. *Ontsluier die Heelal: 'n Inleiding tot Sterrekunde*, published by the author, Johannesburg, 388 pp.
- Van Zyl, J.E., 1996. *Unveiling the Universe: an Introduction to Astronomy*, Springer-Verlag, Berlin, 324 pp.
- Van Zyl, J.E., 1999. *Maak Kennis met die Heelal*, Rhino, Wingate Park, 248 pp. + app.
- Van Zyl, J.E., 2000. *Get to Know the Universe*, Rhino, Wingate Park, 255 pp.
- Vermeulen, D.J., 2006. *Living Amongst the Stars at the Johannesburg Observatory*, Chris van Rensburg Publications, Johannesburg, 134 pp.
- Wild, S., 2012. *Searching African Skies: the Square Kilometre Array and South Africa's Quest to Hear the Songs of the Stars*, Jacana, Johannesburg, 216 pp.
- Young, N., 2012. *Astronomy Within Reach*, Lapa, Pretoria, 208 pp.
- Young, N., 2012. *Sterrekunde Binne Bereik*, Lapa, Pretoria, 208 pp.

A few of the books (other than those indicated) are available in English and Afrikaans. A publication of general interest to readers concerned with African astronomy is Holbrook et al. (2008). See the **Bibliography** above.

Audio-visual material

Cosmic Africa is a 72-minute documentary film on some indigenous celestial beliefs and observations in Africa. The film, in terms of southern Africa, deals with the San resident in north east Namibia. The film was a co-production involving Cosmos Studios, Åland Pictures and Cape Town documentary writer and producer Anne Rogers. The film was released on the South African art cinema circuit by Ster-Kinekor on the 14th of November 2003. The documentary can be purchased via the Foster Brother Productions website. See: http://www.senseafrica.com/.

A series of short programmes on southern African indigenous astronomical topics was made by Penguin Films in Cape Town. The programmes were compiled for the SABC Education for School TV, and broadcast by SABC 2. The first set of programmes (10 episodes) entitled: *African Sky Mapping* was broadcast from the 22nd of July 2005–23rd of September 2005. The second set of programmes (13 episodes) entitled: *African Sky Stories* was broadcast from the 1st of June 2007–24th of August 2007. The series was aimed mainly at children and young adults. For further particulars contact the SABC TV Programme Archive, Auckland Park, Johannesburg. Phone 011 714 6673.

Observing the stars

The best way to observe the heavens is by using a telescope. Anyone contemplating the purchase of a telescope should seek expert advice before buying a new or second hand instrument. It is strongly recommended that the nearest branch of the ASSA or a planetarium should be approached in this regard. Telescopes are expensive and an inappropriate choice will result in buyer's remorse. Beginners should rather consider buying a good pair of binoculars. Binoculars vary considerably. The designation 7 × 50 or 8 × 30 for example means that the binoculars will magnify seven or eight times respectively. The second number refers to the size or aperture of the front lens in millimetres (i.e. 50 mm or 30 mm) which influences the brightness and colourfulness of the view. A high magnification can result in the image shaking due to the inability of the observer to hold the binoculars steady enough. A tripod may then become necessary. A further problem with excessive magnification concerns light, or more specifically, the lack thereof. The more an image is magnified, the more the available light is spread out, resulting in a dim image. Also of importance is choosing binoculars with coated lenses. Light striking any surface is reflected back to a certain extent (in the same way as a mirror). What this means is that up to about 5% of the light entering the lens of a standard pair of binoculars is reflected away. Binoculars with properly coated lenses can reduce the amount of reflected light to approximately 0.1%. It follows that coated lenses will have a brighter image. Some binoculars are multi-coated to reduce reflections even more, and to increase the robustness of the lens surface. Another factor to consider is that the binoculars should not be too physically heavy, thus restricting viewing due to aching arms. A good compromise, perhaps, is to purchase a well-known brand of binoculars with coated lenses and a magnification of 7 × 50. The beginner, once again, should consult an expert prior to making his choice. Some of the books listed above contain star charts which will assist the novice star-gazer to orientate himself in terms of the night sky. An especially useful tool is a planisphere, which shows the position of the stars at given dates and times, and at specific latitudes. Commercial planispheres can be purchased from specialist book shops or telescope suppliers. Note that star charts or planispheres for the northern hemisphere are of little use in the southern hemisphere (Reidy and Wallace, 1987; Turk, 2001).

Some pertinent websites

There is a wealth of information available on the web concerning the Sun, the Moon, the planets and the stars. Some of the material is at an advanced level, although there is a great deal of intermediate level data which may be of interest to readers of this book. Only certain websites are listed here. The discerning reader will soon discover further sources of information pertinent to his quest. Remember that some of the data refer to the northern hemisphere (for instance the constellation of Orion as seen in that hemisphere). Always check the *Links* button of each website for further information.

- **http://adswww.harvard.edu/**
  The official NASA Astrophysics Data System (ADA) website is a digital library covering a wide range of astronomical topics. Users are able to search bibliographic databases and obtain full-text scans of astronomical literature. The information is mainly of an advanced nature. Another relevant website is the SIMBAD astronomical

database which has basic data, cross-identifications and a bibliography for astronomical objects outside the Solar System. See: **http://simbad.harvard.edu/Simbad**.

- **http://www.allthesky.com/**
  The website has images of comets; eclipses; star clusters; constellations; nebulae, galaxies and other objects.

- **http://antwrp.gsfc.nasa.gov/apod/astropix.html**
  This website provides an astronomy picture of the day, and contains information of general interest.

- **http://www.ap-i.net/avl/en/start**
  The website refers to a free computer program which shows lunar formations and the phase of the Moon at any time.

- **http://www.arvindguptatoys.com**
  This innovative website shows how to make toys from inexpensive materials in order to explain or demonstrate a number of astronomical concepts.

- **http://www.astro.com**
  This website, amongst other things of little relevance, has useful data on the planets. See the *Ephemeris* button for information, for example, on the dates of conjunction of the planets over a long period of time.

- **http://astronomy.uwp.edu/saber/**
  The website consists of an annotated bibliographic database of astronomy education research information.

- **http://www.cometography.com**
  The website lists some well-known comets.

- **http://www.constellationsofwords.com/Fixedstars.htm**
  The website describes myths and legends associated with a number of stars.

- **http://dir.yahoo.com/science/astronomy/**
  An impressive website with many links to a wide variety of astronomical topics.

- **http://www.eclipse.za.net**
  This South African website gives basic explanatory details of eclipses as well as data on some past and future eclipses in Africa.

- **http://eclipse.gsfc.nasa.gov/eclipse.html**
  The website, like the one listed immediately below, contains pertinent information on past and forthcoming solar and lunar eclipses.

- **http://www.eclipse.org.uk/eclbin/query_usno.cgi**
  A very useful website which provides concise details of solar and lunar eclipses over an extended period of time.

- **http://www.fourmilab.ch/yoursky/**
  This interesting website has an interactive planetarium with an array of astronomical data.

- **http://www.frostydrew.org/observatory/courses/myths/booklet.htm**
  The website describes myths and legends linked to the Sun, the Moon, the planets and other celestial bodies.

- **http://www.globeatnight.org**
  The website is of relevance to those interested in the problem of light pollution. The website also has information of overall interest, for example, on the constellation of Orion.

- **http://www.heavens-above.com**
  The website contains a variety of astronomical data.

- **http://home.hiwaay.net/~krcool/Astro/moon/moonlinks/**
  The website has a most impressive list of links to other websites with regard to lunar topics.

- **http://hubblesite.org/**
  This official Hubble Space Telescope website is of general interest, and also has information for the aspiring star-gazer.

- **http://www.icq.eps.harvard.edu/names1.html**
  The International Comet Quarterly website lists the names and designations of comets from 239 BC up until current times.

- **http://www.kidsastronomy.com**
  The website contains a number of games and activities to stimulate an interest in astronomy amongst children.

- **http://www.nakedeyeplanets.com/movements.htm**
  The website carries a very informative non-technical discussion of the movements of the planets, with explanatory diagrams.

- **http://www.nasa.gov/**
  This NASA homepage website is of interest to those concerned with space exploration. Some teaching resources on the website may be of use. See the *For Educators* button.

- **http://nineplanets.org/**
  The website has useful information on the planets, including the moons thereof.

- **http://nio.astronomy.cz/om/index.html**
  The website gives details of a free planisphere which can be downloaded.

- **http://www.oneminuteastronomer.com**
  This website is of general interest.

- **http://www.shallowsky.com/moon/hitchhiker.html**
  The website has specific data on the Moon, including lunar features.

- **http://www.skyandtelescope.com**
  This website is the home page of the *Sky and Telescope* magazine, and contains material of relevance to amateur and professional astronomers.

- **http://www.skymaps.com**
  A useful website which allows the user to print a monthly chart of the night skies in both the northern and southern hemispheres.

- **http://www.space.com**
  A website of general celestial interest.

- **http://www.spaceweather.com/index.html**
  This well-known website has a variety of current data including details of aurorae and information on the planets.

- **http://ssd.jpl.nasa.gov/**
  The official Solar System Dynamics website which contains the *Horizons Ephemeris* (the latter is somewhat complicated to use, however).

- **http://starchart.polaris.net**
  An interesting website which generates star charts of specific constellations.

- **http://www.starwaders.com**
  This comprehensive website *inter alia* describes a South African CD which contains star puzzles with reference to the constellations. Other sources of information include astronomy programs, educational tools and instructions on building a portable model of the solar system.

- **http://www.stellarium.org**
  A useful free open source planetarium program which shows a realistic sky in 3D, as seen with the naked eye, binoculars or a telescope.

- **http://www.timeanddate.com**
  An interesting website which contains data on a world clock; time zones; calendars; the Sun and the Moon; seasons, day and night maps and eclipses.

- **http://www.usno.navy.mil/USNO/astronomical-applications/data-services/data-services**
  The website contains computational data on the times of sunrise/sunset; moonrise/moonset; twilight; equinoxes and solstices; the phases of the Moon; solar and lunar eclipses; the rise/set/transit times for major Solar System objects and bright stars; the positions of selected celestial objects; synthetic views of the Earth and Solar System bodies, celestial navigation and other important topics.

- **http://wikisky.org**
  The website is of interest to those concerned with deep space objects such as nebulae.

- **http://www.worldwidetelescope.org/home.aspx**
  This useful website permits a computer to function as a virtual telescope, and contains imagery from both ground and space-based telescopes.

APPENDIX E
The retrieval of historic and anthropological data

Published books, proceedings of conferences and journal papers

The advent of the Internet has greatly facilitated the retrieval of information contained in old (long out of print) books, conference proceedings and some academic journals. There are three primary means of accessing such data. It is sometimes possible, firstly, to examine certain books on a key word basis in Google Books. Select Google Books and insert the title and author of the book in question. Then insert the key word, for example 'meteor', in the window provided. Also try the plural of the key word. The page/s on which the key word appears will be listed. Note that not all of these pages may be displayed if the key word is common to many pages. The listing can take three forms: (a) where only a very restricted window appears, (b) where the reader can open the whole page to examine the context in which the key word has been used, or (c) where several pages can be read simply by scrolling up and down. [An example of (b) and also (c) drawn from the above bibliography is: Burchell, W.J., 1824. *Travels in the Interior of Southern Africa, VOL 2*, Longman, Hurst, Rees, Orme, Brown and Green, London, 648 pp.]. The restricted window is sometimes a source of frustration since the sentence/s containing the key word may be cut off in mid-stride (hidden to the reader). The only option in this situation is to find a physical copy of the book, or to insert related key words (seldom successful). A primary advantage of the Google Books procedure is that key words can be used as a navigational tool. The reader, holding a physical copy of the book in his hand, can immediately proceed to the first few listed pages of relevance to his enquiry. A second advantage of the Google Books method is that books *not* containing the necessary key words/s can be identified and rejected, allowing the reader to concentrate on potentially more productive sources of information. A negative result here, in other words, is still a positive for those who must scan a variety of sources for data. It is also sometimes the case, especially with more recently published books, that the reader will only be given limited access to the page content, where certain pages or whole blocks of pages cannot be perused. A related difficulty with some such sites is that the reader can be denied access to particular pages after a given number of enquiries, or perhaps after spending too much time examining the site. Two options are suggested here. Either peruse the primary pages of interest first, or revisit the site after a day or two.

A most valuable information resource, secondly, has been made available by a number of American and Canadian libraries in particular. Reference is made here to older books and some journals (for instance early issues of the *South African Journal of Science*). Insert the title and author of the book in the normal manner in the search window of Google. Examine the listing of sources which is displayed. The reader in this scenario seeks a specific website (http://www.archive.org …). [An example reproduced from the bibliography is: Martin, M., 1903. *Basutoland: Its Legends and Customs*, Nichols, London, 174 pp. (The

book can be read online, or downloaded from the University of Toronto Robarts Library website. See: http://www.archive.org/details/basutolanditsleg00martuoft.)]. The required website can usually be seen in the first few Google pages. Persevere, however, since the website may not always appear so conveniently (i.e. continue to examine the displayed Google pages). The reader, after having found the desired book on this website, should click the button on the left hand side of the screen where several viewing options are provided. These are either to read the book online (or to search using key words), or to download the entire book in the specified formats. Such downloads may take some time, depending on the size of the file. It is suggested that the reader, at this point, makes a cup of tea or coffee. Simply starring at the screen will not accelerate the downloading process. If the download fails, try again immediately, or download two copies of the file at the same time. Those seeking an early issue of a given journal (if available on the Internet) should insert, for instance: 'South African Journal of Science + 1920' in the search window of Google. While examining http://www.archive.org … click on the left hand button, as already indicated, for viewing options. Then click on **Author: South African Association for the Advancement of Science** in the middle of the screen to determine all issues of the *South African Journal of Science* which have been scanned, and which can be read online or downloaded from the website. Some emphasis is placed here on the *South African Journal of Science*. The journal was one of the few primary academic journals in South Africa in the early years of the 20th century. This general-purpose journal then included papers on a wide variety of topics including anthropology. It was only later that specialized journals catering for particular disciplines began to emerge in South Africa. One additional website, although not containing all issues of the *South African Journal of Science*, may prove useful. See the Sabinet African Journal Archive (South African Journal of Science) website. Refer to: http://content.ajarchive.org/cdm4/index_00382353.php?CISOROOT=/00382353. The website can be searched by means of key words (not always functional) or by clicking on the **Browse through the collection** button. The latter method can be employed if the reader is fairly certain of the issue required. Do not rely on the truncated listing of papers on the left hand side of the screen for the issue in question. It is strongly recommended that the reader clicks the **Contents** or **Table of contents** button which will reveal the actual list of contents for the specific issue of the journal. Papers may be read online, printed out, or downloaded. Refer also to the Biodiversity Heritage Library website in respect of the *South African Journal of Science* from 1908–1922 inclusive. See: http://www.biodiversitylibrary.org/item/31372.

There are other websites, thirdly, where the seeker-of-information can read the contents of a book online but not do anything else; or read and print the whole book in hard copy (but not download the book). The latter option usually involves printing the book chapter by chapter. [An example again reproduced from the bibliography is: Werner, A., 1933. *Myths and Legends of the Bantu*, Harrap, London, 335 pp. (The book can be read online, or printed from the Sacred-texts.com website. See: http://www.sacred-texts.com/afr/mlb/.)]. An especially useful source of information for researchers is the JSTOR Archive which is a not-for-profit service in respect of selected journal papers. The papers can be downloaded only by a library affiliated to JSTOR. See: http://www.jstor.org.

A final point is that it is highly advantageous to exercise patience, when searching the Internet by using a particular key phrase (i.e. 'comets + South Africa'). The current author, as a matter of procedure, carefully perused all the displayed Google pages, whether they were page 1 or page 75 (for example). It was invariably the case that several websites of interest were found somewhere towards mid-point in the search-span. In one specific instance, a useful and current journal paper was discovered in the very last pages of the Google listing. Examination of all the Google pages, depending on content, can take up to five or so hours. Interruptions to the work schedule can be facilitated by making a *written* note of the search phrase and the last seen Google page. Do not rely on memory! On resuming operations, simply re-insert exactly the same phrase and click on the very next Google page to be searched. Slight variations in the wording of a particular key phrase may occasionally yield additional sources of information (websites). A fresh Internet search using similar or related words, for example 'heaven' instead of 'the sky/firmament' may also prove beneficial.

A comprehensive source of citation details for books and sometimes published conference proceedings is the WorldCat website. The website lists various editions and gives details of further publications by the author/s in question, as well as the names and physical locality of libraries holding the publication. Insert WorldCat in the search window of Google and type in the title (the better option) or author of the desired book. Alternatively, see: http://www.worldcat.org.

Some electronic sources of literary and similar information on the San and other peoples in southern Africa

- **Electronic Bibliography for African Languages and Linguistics (EBALL)**. Information is provided mainly on the San; the Khoesan (Khoisan), and the Khoekhoe (Khoikhoi). See: http://www.goto.glocalnet.net/maho/eballsamples/sample;

- **Encyclopaedia of South African Arts, Culture and Heritage (ESAACH)**. Material is provided *inter alia* on the Bushman; Cape Khoekhoen (Khoikhoi); the Khoi; the Korana; the Khoisan; the Nama; the /Xam; the Bleek and Lloyd collection; the Nharo (Naron); the //Xegwi (Tlou-e); the G/wi; the G//ana; the Kxoe; the Ju/'Hoansi (!Kung; /Xun); the !Xo (!Xõ) and Eastern Hoa; the Kua; the Hai//om; the Eastern and Northern Khoe; the //ŋ!ke; the /'Auni; the #Khomani; Anthology; Translation; Oral tradition; African language literature; the Sotho; the Tsonga; the Tswana; the Xhosa, the Venda and the Zulu. See: http://www.esaach.org.za/index.php?title= [then insert, for example, *South African languages* as the last word of the address]. The reader may wish to examine other websites regarding the classification of the San and their languages. One such site is the Khoisan, Bushman and San information website. See: http://www.mike-elliott-fine-art-paintings.com/bushmen/index.htm. Readers should also peruse Barnard (1992);

- **Kalahari Peoples Network**. See: http://www.kalaharipeoples.net *and* http://www.kalaharipeoples.org;

- **National English Literary Museum (NELM)** in Grahamstown. The museum has a collection and database of South African English literature dating from the 18th century onwards. The collection includes relevant material from southern Africa in general. Poetry, stories and plays form part of the collection. The database can be searched via certain categories. Readers must peruse the documents listed themselves, in order to extract the required information. See: http://www.rhodes.ac.za/nelm.

- **Swazi Culture: An Annotated Bibliography**. See: http://www.h-net.org/~africa/sources/SwaziBib.html;

- **Web Resources for African Languages**. The website, in terms of southern Africa, has data on the Khoesan (Khoisan); the San; the Tswana; the Southern Sotho; the Northern Sotho; the Shona, the Xhosa and the Zulu. A few older dictionaries are listed on the website. See: http://www.africanlanguages.org.

Dictionaries

There are several online vernacular dictionaries on the Internet. It is unclear how the dictionaries were compiled, when, and what source documents were used. Search for example on 'Zulu + dictionaries'. Such dictionaries will serve for general purposes, although readers should be careful of modern translations of the names of celestial objects. Generally speaking it is the oldest texts, or the very next generation of dictionaries based on the primary dictionaries, which will contain some of the original vernacular names of the stars and planets.

Venus Rising: South African Astronomical Beliefs, Customs and Observations examines traditional South African celestial knowledge, ranging from the Venda in the north to the /Xam San (Bushman) in the south. Also considered are eclipses, comets and meteors. Likewise discussed are place names, stories, poetry and riddles as well as other linguistic expressions which are linked to the heavens. The book, the first of its kind in this country, is a beginning and not an end, given that there is still more information to be collected in the vastness of South Africa's cultural heritage. Readers, reinforced with information contained in this book, are invited to scan the night skies from a truly *South* African perspective.

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