22d Saturday. Some of the chief men again expressed their thankfulness to me for opposing the project of Moriantsane for a foray against the Batoka. They feel that I am right and said in addition, To you alone we look as one that will intercede for us. Each one is in dread of his neighbour, and when the death of any one is resolved on there is no one to stand in the gap.

Sunday 23d. It is desirable in general to erect a place of public worship as soon as possible. Reverence and decorum are much more easily induced by meeting in a house than meeting in a place where the people are accustomed to meet only for play or noisy dispute and the transaction of all public business, as hearing causes and dispensing justice &c. But this erection cannot at present take place here. They are upon improving in their deportment but it is still far from what it ought to be, and high winds disturb by drifting sand into our faces and drowning the voice. We had fewer people today than usual in consequence of most of the women having gone to the gardens. Rains are expected, but they are long in coming. Great cloudiness and haziness seem to portend the early commencement of the much longed for blessing.

As erroneous notions of what conduces to the health of the body tend to corporeal weakness, so error generally tends to produce mental weakness. Sin is dementia. It is stark folly, for the very violation of God's laws tends to the degradation of the offender. Slavery for instance working upwards corrupts the children. We cannot degrade the lower stratum of

society without lowering ourselves.

Monday 24th. A poor girl in a state of destitution lay near my path to the town. She was wretchedly lean. I told her to go to the waggon and I gave her some food. She was quite naked. George gave her a piece of cloth for the loins. She came several times and I spoke to her owner about her. He complained of want of food himself, but being a rich man I thought it was only talk. The wretched girl came to the waggon again & again. I gave her food several times, but my own people being in want drove her away. On asking her owner yesterday where she was, he said she had gone into the field and probably died there of absolute starvation.1 Poor

wretch, this is the fate of many in this benighted land. They wander forth and become the prey of hyaenas.

I attempted again to introduce a system of kindness into the dealings of the Makololo and conquered tribes, by proposing again to Sekeletu to obtain beads and present them to such of them as bring tribute in ivory. If they only make a commencement, the system in other things will follow. Sekeletu and his counsellors highly approved the suggestion, but the practice is not so easily put into operation. They quote attempts of Sebituane in the same line which were unsuccessful. He gave oxen, but they rewarded his kindness by bringing the Matibele upon him.

Moriantsane came and apologized for his talk and hoped I would not keep up any bad feeling. I replied all I said against their ways was on their account & for their benefit alone.

Facts about the Rhinoceros

Mistakes have been made respecting the species of Rhinoceros in Africa by observing the same species at different stages of its growth and giving individuals different names as the natives do, though these are only meant by the latter to express differences in the length or appearances of the horns. To me all the African Rhinoceros I have yet seen amount to two species only, each species having two varieties, the only characteristic of which is the length and direction of the horn s.1

They are:

R. Mohohoo species

the White Rhinoceros, or large long headed,

grass feeding one.

1. A variety called Kuabaoba, exactly the same as the other except that its horn is long & straight. He is found in company with the other and is in no respect different in feeding habits &c.

¹ This incident is described, with some variations in detail, in Travels, p. 511 (entry dated 1 October 1855).

¹ Cf. above, p. 62, and Travels, p. 612. Cumming likewise writes (1850): 'Of the rhinoceros there are four varieties in South Africa, distinguished by the Bechuanas by the names of the borèlé, or black rhinoceros, the keitloa, or two-horned black rhinoceros, the muchocho, or common white rhinoceros, and the kobaoba, or long-horned white rhinoceros' (vol. i, p. 215 n.). Modern taxonomists recognize two species: black rhinoceros (Diceros bicornis) and white rhinoceros (Diceros simus).

species \ R. Boreelé or Black Rhinoceros, short headed, II. feeding on trees & bushes.

2. variety Boreelenyane, or little black short-horned animal feeding on trees & bushes. Habitat on rocky

The Keitloa is the full grown black Rhinoceros or Boreele.1 When the horns are full grown, the front & second horn are of the same length. The grain of the horn is finer than in the other species. The Boreelenyane2 is a short snubnosed little animal. The colour of all Rhinoceros is the same ashey grey. It is probable that he who gave the names white & black saw the latter in a black soil, and when they have rolled themselves in dark mud they look black enough.

Rhinoceros is the next in point of size to the Elephant. The Mohohoo or white longheaded long horned animal is of an ashey grey colour & about 5 feet 6 in. high. Extreme height does not exceed six feet. The horns are placed on the lower part of the forehead. The longest is slightly bent backwards or upright recurvated, the short one a cone flattened from side to side. The large one is from 3 feet 3 inches & under, & 10 inches in diameter at the base and tapering to a point. It is so firmly fixed to the frontal bone it is frequently necessary to remove that with the horn.

The horn of the Kuaboaba is slightly bent downwards or straight. When seen running the horn seems to stand quite horizontal. The point is generally abraded or worn off in consequence of the horn touching the ground when the animal is feeding. He can see better than the Mohohoo whose horn is bent up towards his forehead, because the horn does not interfere with the line of vision. A horn has been seen of 3 ft 10 inches in length, and another a foot longer, but these are extreme cases. The short horn behind the other is from 10 to 15 inches long. A Boreelé was seen with his horn bent in the same manner as the Kuabaoba, and antelopes frequently exhibit variations in the shape of their horns.

The Kuaboaba is found in particular localities only & is

2 Bodilenyane, dimin. of bodile ('boreele').

scarce in all. The White Rhinoceros is partially gregarious, being met with occasionally in groups of five or seven. They feed on coarse long grass and have no incisor teeth. He deposits his droppings in particular spots, always excavating the centre of his heap when he comes to it. The undigested grass appears in them, and a kind of solaneum generally springs up from the part. It is the most inoffensive of all the large animals. Elephants sometimes assault a village at night, overturning the huts and killing inhabitants, or enter gardens and when the women attempt to drive them off follow and kill them. But a Mohohoo never molests any one. The males occasionally break in the frontal sinuses of each other in their affairs of gallantry, but that is a private affair between themselves. He is a placid good natured fellow and almost always fat. He may often be seen sauntering along the banks of rivulets in the afternoon, after having spent the heat of the day in some shady bower. His sight is deficient but his hearing is acute, and if unaccompanied by a friendly bird called 'Kala'1 (Crotophaga ani or Buphagi (beefeaters)) he is easily approached from under the wind. The bird by flapping with its wings and screaming gives him warning of the approach of danger. As his flesh is usually loaded with fat, and a single bullet behind the shoulder slanting upwards a little in its direction is sufficient to kill it stone dead, it soon becomes extinct after the introduction of fire arms into a country. His skin is from an inch to an inch & a half in thickness.

His trail is known by a distinct impression of three toes, the outer one producing an ovoid mark on the sand. The foot is much larger than that of the Boreele, and wherever it is seen it is the cheering sign of proximity to water. He cannot bear deprivation of water for any length of time. Delights to roll in the mire and then rub himself against an anthill or tree. He feeds during the evening & night, and stands or lies under a shady tree by day. He utters a hoarse grunt when pleased and frequently tears up the ground with his hind feet, throwing out the legs behind & rubbing them hard on the ground as a dog does when apparently cleaning his toes, and then ploughs up the ground or a bush with his horn. He seems to do it in the joyous consciousness of strength. Dogs

Roberts (Mammals of South Africa, p. 241) gives kgéthwa ('keithoa') as a Tswana name for the white rhinoceros (together with mogohu and kebasba). Most other writers agree with Cumming and D.L.

¹ Cf. above, p. 119. The words placed in parentheses are an interlineation.

after stretching their legs so usually take a spring away as if in joy. But some have thought that a similar phenomenon in the Rhinoceros indicates 'ungovernable rage'. Horned cattle make the same use of their horns. The least approach to rage I have seen is when he ploughs the ground on coming to the droppings of the black Rhinoceros or when driven off by man.

He is not affected with any disease except worms in the intestines. These are of different kinds—flat, round, and thread, but each variety very large. Worms are often seen in the eyes. All Rhinoceros when alarmed rush off with a loud puffing noise.

The female shews much affection for her young, always taking the danger side or keeping the calf in front in escaping unless mortally wounded. She then loses the maternal feeling and rushes past it.² This is a sure sign that she will soon expire. In the agonies of death they often utter a peculiarly piercing shriek, and tears flow, making one regret that the progress of civilization and the necessities of human stomachs have doomed these ponderous masses of animal life to destruction. The calf follows the dam till nearly full grown. They are not many years in reaching maturity, and not so long lived as elephants. They are supposed to go ten months with young & bring forth one, sometimes two, at a birth.

The chief food is grass, but to this they add the tender shoots of some trees. Such are the Monokane & Mokabe (gum yielding) & Morupaphiri (a short thorn), Moguana (sweet), Mosilabele (bitter), & Morolane (a solaneum narcotic). The grasses of which he is most fond³ are called Mosegashule & Tlokwane.

II. species. Boreelé or Keitloa. He is known by being of less size than the Mohohu, & his head & snout are much shorter. His horns are shorter and finer in the grain but of the same shape as the other. When running the nose is so held that the horns are nearly erect or perpendicularly to his nose. His tail is held nearly so too. He is much less timid than the Mohohoo, and often turns savagely on the hunter. His sight not being acute he charges the smoke of the gun or a bush or tree in the direction of the sound. If the hunter remain per-

fectly still he often takes him for the stump of a tree and charges close past him. He is both stupid and savage, often attacking and killing both persons and cattle without any provocation. My waggon has been twice assaulted by this animal,1 but in one case he charged past me when wounded and saw the waggon only. If he sees any unwonted object approach, as a man on horseback, he cocks up his nose in the air, snorts, and makes movements from side to side as if he meant to charge, but generally goes away. If wounded he becomes very angry, and will kill a buffalo or other animal which he may meet with. He seems a crusty fellow on the whole, and never has an ounce of fat on his flesh. The flesh however is not unpleasant. His ill temper induces him sometimes to insult the quiet Mohohoo male, with a fatal result to one of the parties. But both instantly retire before the Elephant. The Buffalo retires from both Rhinoceros.

The same remarks are applicable to the variety Boreelenyane. Of the propriety of calling it such indeed I have some doubts. The points of difference are, the Boreelenyane is a small very snub nosed scabby looking thing, the horn is 8 or 10 inches long while [that of] the Keitloa is from 18 inches to two feet in length, and the two horns are of nearly equal length. Its habitat is on rocky hills. But neither of them are attached to particular runs as the Mohohoo. His droppings, met every where, contain much indigested wood. Their food and temperament are the same and may be described under one head.

The low thorny Acacia tortuosa or wait a bit thorn is a favourite article of food. He commences to graze early in the afternoon. May be met with anywhere, having no particular run, so is more dangerous than other animals, for he frequently rushes out on a traveller who is unconscious of his proximity. The acacias or Mimosas on which he feeds are Moshu, Maoka (Acacia nilotica), Mōka (gum yielding), Mopura chukuru & Moretloa (sugar & gelatine yielding). He digs one tuber called Kelerisa. It has been attempted to rear them, but hitherto unsuccessfully. Their food ought to be assimilated to that on which they thrive in a wild state.

She goes ten months with young. Never brings forth more

¹ For one such 'assault', cf. below, p. 303.

¹ Cf. above, p. 74.
² Cf. above, p. 248.
³ MS. has 'found'.

than one at a birth. Shews much affection for her calf, fighting bravely with the hyaenas for it, but her sight is so defective and her movements so awkward it is not unfrequently killed by both them and lions. It is seldoma Boreelé is seen without the marks of the Hyaena's teeth on his ears, the wounds having been recieved in his youth. The calf when born is about the size of an ordinary sized bull dog, but stands low on his legs and is then of a dark red colour.

Their paces are a slow walk, quick trot in which he turns his head a little from side to side, & a heavy ackward but very swift gallop.

Tuesday 25th. Droughts seem to prevail here as well as to the Southward. There is very little corn here in consequence of one last year. There is so much moisture in the country generally, and so many trees, it is remarkable that rains do not prevail more. The average heat by day is 98°, of the evenings 90; in the mornings it has fallen as low as 80°. The ground is very much heated, yet the grass and trees spring forth vigorously.

Plasterer

Several of that most useful insect the 'Dauber', or as I would name it the Plasterer, 1 have been working in my waggon for some months. They build the cells for their young with great assiduity, going four or five times in succession to a little heap thrown up by the white ants, and selecting a load of the earth which is most recently thrown up and of course contains the most moisture. They quickly transform it into soft plaster by moisture drawn from their stomachs, and flying with the bolus about the size of a pea to the part where operations are being carried on form the walls of their cells neatly with their mandibles. They seem to have a stock of water for about 4 or 5 pellets, and then fly away to the water for more. Their economy in the use of water is seen in their selecting the moist portion of the White ant's heap. The air being so dry, all that which this insect throws up in the manner of moles is instantly dried except the point of the

heap. This is invariably selected and by this means visits to the water are less frequent.

The form of the cells is oblong like that of the body of the full-grown young. And though when plastered in as firmly as a vault in a burial ground the larva is not much larger than a pin's head, the remaining space is filled with caterpillars or spiders all in a state of anasthoesia from the Chloroform which the plasterer has injected with his sting. The young insect lives and grows on these, and the supply is just about sufficient for his wants till his body fills the cell. Some are then of a beautiful bright green colour and much less in size than the parent, who is of a jet black. He does not therefore make the cell from the measurement of his own body. Yet all cells of the black plasterer are of the same size. These insects sometimes sting, but having never interfered with those in the waggon they seem to keep on the best terms with me. If I sit directly in front of their cells, they fly gently in front untill they observe an opening & then glide quietly past. The natives call the collection of cells 'The house of God'.1 Is this idea derived from Egypt? I think I have seen the Plasterer in Hieroglyphics.

(Though white ants work on the rock in dry weather, their operations are all carried on with moist clay. They seem capable of procuring supplies of moisture from the air.)

The plasterer is very useful in the destruction of spiders and caterpillars. When bringing one of the latter it is frequently as much as it can carry, and when compelled to make certain curves in order to reach the cells he often alights with his burden to rest. At other times the industrious architect, instead of abandoning a load far beyond his powers, uses both wings and legs to drag his prey along the ground, the caterpillar all the while lying perfectly motionless & stretched out to its full length. Another kind of these insects burrows in the ground untill it forms a cell, deposits its egg or larva and stock of caterpillars, and then closes the aperture so neatly no one could detect its presence. This is an elegant thin insect about an inch in length. The Plasterer is reported sometimes

^{1...}a hymenopterous insect called the plasterer (Pelopæus Eckloni), which in its habits resembles somewhat the mason-bee' (Travels, p. 538).

¹ In Southern Sotho, ntlo-ea-balimo (lit., 'house of the ancestor gods') is used for 'nest of white ants, nest built of clay by certain insects' (Mabille and Dieterlen, Dictionary, 1950 ed., p. 408).