

addition to cane, it has also been found on a number of grasses, and we, by planting *Imperata arundinacea* (the um-Tente grass) in tubs to the soil of which was added sterilised maize on which the fungus was growing, have shown it capable of subsisting at the base of this grass. Probably it occurs on this and other grasses in South Africa in the wild state also. Whether the true *Marasmius sacchari* occurs in South Africa must remain undecided until toadstools of it are collected.

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SUTO ASTRONOMY.

BY REV. G. BEYER.

With 1 Figure.

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Although the Basuto, from our point of view, possess a more or less limited knowledge of Astronomy, it is, however, interesting and worth the trouble to inquire how far this knowledge goes, and what ideas primitive people form of the celestial world.

The sun is called "le-tjatji," in old Sesuto "le-laka," corresponding to "i-linga" in Zulu.

It is considered as a big, burning disc, which passes over the "le-ratadima" (sky) from "bo-hlabatjatji" ("east") to "bo-sobelatjatji" ("west").

Each day, in their ideas, has its own sun; in the evening the old one, "sobela" ("disappears"), the next morning another sun will "hlaba" ("pierce"), and so on.

The constant observation of the sun has created a wonderful sense of orientation amongst the Basuto. They will never lose sight of "the north" ("le-tzweta") or "the south" ("bo-rwa," i.e., the country where the "Ba-rwa" ("Bushmen") live; they always know where the sun rises and sets. When travelling with them they will never be in uncertainty about the direction.

Last, but not least, the sun is for the Mosuto what a watch is for us. If they want to make an arrangement for a rendezvous at an appointed hour they point to a place in the sky and say: "We shall meet when the sun stands there!" It may be in the morning ("go-sasa" or "bo-sasa," i.e., when "the day is breaking"); at noon ("mo-segare," i.e., when the sun is in "the middle of its orbit"); in the afternoon ("ka me-riti" i.e., when "the shadows grow longer"); or in the evening

("ka ma-ntjebōa," *i.e.*, when it is "getting cool" ("tjididi") "again" ("bōa").

The summer and winter solstices, though not ruling the Suto year, are noted; the points where the sun "turns" ("bōa") in the middle of winter and where in summer are known accurately.

The Basuto distinguish three different seasons of the year:

"se-leme," the "ploughing-time" or spring;

"le-hlabola," the time when there are plenty of eatables "sweet to the taste," or summer; and

"ma-rega," the time when the plants, etc., "rega," *i.e.*, "get dried up."

The moon is called "kgwedi," or "ngwedi."

The apparition of the new moon is always received with cheers by the Basuto, especially by the children. The first who sees it shouts: "kgwedi oē!" "there is the moon!" and soon a many-voiced echo: "kgwedi oē!" is heard.

The day after the new moon has made its appearance it is forbidden to till the fields or to cut trees; it is a day of rest. The moon must be left undisturbed to "tiea," *i.e.*, "to become strong," first.

The appearance of the crescent is also carefully examined by the Basuto. If its horns are turned down towards the earth that is regarded as a good omen: "All sickness has been poured out!"; on the other hand, if the horns are turned towards heaven that is a bad omen: "The moon is full of misfortunes!"

There is a curious ceremony among the Basuto of presenting little children to the moon, which is performed when a child enters its "second month" ("mo-kuruetjo").

As soon as the new moon appears in the sky plenty of "mo-togo," or "light beer," is prepared. The next evening after sunset, when the moon becomes visible, the big girls of the kraal call all children, boys and girls, together, take the child in question together with the beer and go outside, not far away from the kraal. The girls take hoes with them, the boys small bows and arrows. Then they sit down; one girl takes the child, turns it towards the moon, and points to it, saying: "Bona, mo-nkane wa gago shu!"; that is, "Look there, that is your friend!" The girls then make a little garden for the child, plant, when in summer, some mealies, beans, or monkey-nuts; in the meantime the boys play with their bows and arrows. When the girls have finished tilling and planting their little piece of ground, then all sit down, enjoy their beer, and afterwards go home.

Each "moon" or month is considered as being a new one; the old one having "died" ("e huile"), a new one "sets" ("e dutshe").

When the first quarter appears the moon is said to "file off its horns" ("e ritela dinaka"); when it is full moon: "it has filed off its horns" ("e ritetshe dinaka"), or "e tolokile,"

that is, "it is rounded off"; the last quarter is called: "e dumedisha le-tjatji," that is, "it salutes the sun."

Each moon bears a special name:

January is "Phato" (ma-sohlo), that is, the month in which the first green mealie-cobs ("ma-sohlo") were broken off and eaten.

February is "Legobye" (la mpa le modula), or the month of "the fully developed blossom."

March is "Ma-hlohlekwe," the month of "the thin porridge."

April is called: "Se mphe, ki khotshe!", that is, "do not give me any more, I have had enough!"

May is "Shishishebo," that is, "there is the "se-shebo" or "side-dish." Beans are ripe in this month and eaten as "se-shebo."

June is "Le-folwe," the month in which the corn is "thrashed out" ("go folwa").

July is "Le-folwane," diminutive of "Le-folwe," the preceding month.

August is "Phupu," the month in which the first trees start to "fupuga," or "to blossom."

September is "Phepelelo."

October is called "Morenane," or the "young master." The tilling-time begins.

November is "Moseganong" ("kgwedi ea ngwetji eo bogale"), that is, the "month of the angry daughter-in-law."

December is "Ngetaboshego" ("ki a fofa"), or "firefly" ("I am flying"); the month in which the "fireflies" begin to fly about during the "boshego" or "night."

Eclipses both of the sun ("go fifala ga le-tjatji," *i.e.*, "the turning dark of the sun") and of the moon ("go bola ga kgwedi," *i.e.*, "the becoming rotten of the moon") are regarded as a bad omen.

The stars are called "di-naledi." They play a very limited part in the ideas of the Basuto; only those are named which have a practical use in agriculture.

Of the planets, Venus and Jupiter are known.

The last mentioned is called "kgogamashego," or "the drawer up of night."

The best known, however, is Venus. Not realising the identity of the evening and morning star as being one and the same, the Basuto have given her different names.

As an evening star she is called "se-falabogogo," that is, "the crust scrapings"; the meaning is that one who arrives by the light of her will get nothing but the scrapings of the pot; or "kopa-dilallo," that is, the one which "asks for supper," because it appears when people have their supper.

As a morning star she is known as "ma-hlapholane," or as

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shield," and known to us as the large and small Magellanic Clouds.

Of the constellations which bear a name in Suto, the best known is that of the Pleiades. They call it "selemela," that is, the "ploughing constellation," corresponding to "isilimela" in Zulu, because its rising in the early morning of July or August tells the Mosuto that ploughing-time is at hand.

Another constellation known to the Basuto is called "thutlwa," that is, the "giraffe." It is composed of two stars of the Southern Cross (Alpha and Beta Crucis), and the two pointers to the cross (Alpha and Beta Centauri); the former ones are called the "male" ones ("tshe di-tona"); the other two the "female" ones ("tshe di-tshadi"). If seen low down close to the south-western "horizon" ("mo-napi"), just after sunset, it tells the Mosuto the same thing as the Pleiades, namely, that he must soon start ploughing.

"Ma-gakgala" is another constellation known to the Basuto. It is composed of Alpha and Beta Orionis (Rigel and Betelgeux), and Alpha Canis (Sirius), and Alpha Canis Minoris (Procyon).

Orion's belt is named "makolobe," that is, the "pigs."

The twins, Castor and Pollux, bear the name of "ma-selatheko."

The Milky Way is known as "mo-lalatladi," that is, the place where the "tladi" bird, "lala" ("rests"). This "tladi" bird is said to cause lightning.

Comets are called "naledj tsha mesela," that is, "stars with tails." When they appear they mean the death of a great chief.