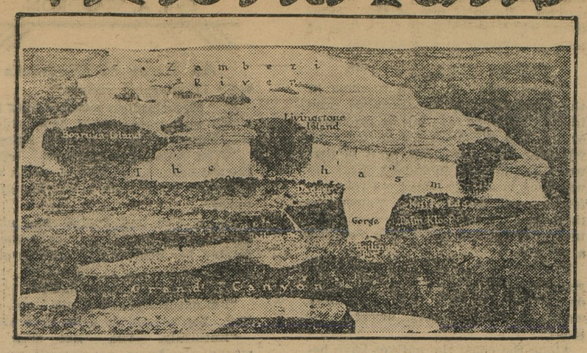
Victoria Falls



Perspective View of Victoria Falls.

(Prepared by the National Geographic Society, Washington, D. C.)

THE best-known scenic attraction in Africa is undoubtedly the Victoria falls of the Zambesi, on the line between southern and northern Rhodesia. This is one of the three greatest waterfalls in the world, worthy to rank with Niagara and with Iguazu in South America.

From immemorial times an atmosphere of mystery and superstition has hung over these African falls, so profound that Livingstone, who discovered them in 1855, had the greatest difficulty in persuading his followers to accompany him, as they believed the region to be the home of monsters and devils of destruction. Vestiges of these traditions still exist, although the Cape-to-Cairo railroad, which crosses the river less than half a mile below the falls, is rapidly dispelling them.

Going by rail from Bulawayo one sees, some 10 miles before reaching the falls, five enormous columns of vapor shooting their roseate-tinted shafts hundreds of feet heavenward. This is a marvelous scene in the early morning. With the first rays of the rising sun comes a picture of color of wondrous loveliness. Delicate tints of violet, crimson, and beryl play through the mounting spray as it shoots higher and higher, ultimately disappearing as virgin clouds in heaven, while the ever-increasing thunder of the waters l[illegible] an added solemnity to the vic[illegible]

Notwithst[illegible]g the magnitude of Victoria [illegible], the first view of them is disap[illegible]ing. Although nearly a mile [illegible]dth and 400 feet in height, the [illegible]ndeur of their proportions is ec[illegible]d by the sudden disappearance [illegible] the river as it plunges into a narrow, rocky fissure extending across its entire width. Only at a single central point is there a breach in this fi[illegible] through which the falls can [illegible]en and appreciated in their f[illegible]oportions, where the conver[illegible] waters rush madly to the zigz[illegible]anyon below. So restricted is [illegible]s view that there is an entire l[illegible]ce of that awe-inspiring and [illegible] paralyzing effect which strikes [illegible] visitor dumb with wonder and [illegible]xcitement when Niagara bursts on [illegible] near vision. On first sight of the Victoria falls one involuntarily exclaims, "Oh, how beautiful!" but they lack the majesty of Niagara.

Must Be Seen Many Times.

No single visit can adequately reveal the fullness of their charms, but repeated excursions must be made to their islands and precipices, their grottos and palm gardens, their rain forests and projecting crags, their rainbows and cataracts and many-sided views of their exquisite setting in the emerald framework of tropic forests, before their indescribable beauty can be appreciated. The fascination of discovering new and hidden charms from different points of view grows on the visitor and becomes one of the greatest attractions.

As the rainy season commences in Rhodesia in November and continues in the form of tropical showers until April, the most advantageous time to see the falls is in May, when the seething torrents are at their flood. November also has its attractions, when the river is low, for then the chasm is comparatively free from mist, disclosing vistas and views of the great abyss of rare beauty which before were wholly obscured by the whirling columns of spray.

The bridge of the Cape-to-Cairo railroad is the favorite point selected by artists, as the picture through the narrow gap at Danger point exhibits the full extent of the angry waters as they leap from the precipices to the abyss below.

There is a hotel near the railway. From its verandas a magnificent panorama of the canyon and Batoka gorge can be seen. A walk of half a mile brings one to "the place where the rain is born," as the natives call the Rain Forest. This is a phenomenon of rare beauty, especially to the botanist, for here the tropic heat and constantly falling spray produce a wealth of vegetation of wonderful luxuriance and variety. Every living thing bursts forth spontaneously here, from the delicate maiden-hair fern to the feathery-leafed palm and the hoary baobob, 70 feet in circumference.

From the western extremity of the Rain Forest the leaping waters of the cascade can be seen to best advantage, while its entire front, bordering on the great crevasse into which the river hurls itself, furnishes a superb view of the crest of the falls from end to end, except when interrupted by the whirling masses of spray that shoot from the seething cauldron below.

View From Danger Point.

But the most thrilling scene is from the eastern extremity of the Rain Forest at Danger point, where the treacherous vines and grasses, clinging to the rocks with hungry, desperate roots, tempt one to the very verge of the precipitate [illegible]s that seem to tremble with the f[illegible]e shock of the cataract. So dens[illegible]e at times is the mass of vapor [illegible]d from the seething cauldro[illegible] the sun's rays can no longer p[illegible]ate it, and complete darkness [illegible]nvelopes one as he is deluged by the downpour, while the terrific thunder of the falls drowns all other sounds and makes his own voice inaudible.

Occasionally a violent blast opens a rift through the blackness and mist, disclosing a momentary view of the lashing waters in the boiling cauldron, whose heaving, battling surface and pyramids of emerald foam change with kaleidoscopic rapidity.

An interesting spot is the kloof, or palm garden, hidden in the first of the serpentine curves of the canyon below the falls and reached from the bridge by a zigzag pathway, which descends in comparatively easy stages through a tangled primeval jungle to the rushing waters of the gorge below. Here again nature, with lavish hands, has shown her prodigality. Palms of enormous size and variety, bathed by eternal spray, mingle so densely with other forest growths as completely to shut out the direct rays of the sun and form a safe refuge for the richly plumed parrots and monkeys that frolic in their branches. From the edge of the waters of this tropic jungle an upward view of the falls enables one to appreciate them in their full height and beauty, and to carry away a lasting impression of their majestic grandeur as seen from below.

The lip of the falls is broken by four islands, which interrupt its flow just as Goat island divides Niagara. The natives appropriately named the first of these Boruka isle—"divider of waters." Between this point and the shore the river channel is deep and shelving, and the leaping waters of the cascade rush with fearful impetuosity, shooting clear from the precipitous walls in their mad flight to the abyss 250 feet below, while the echoing woods ring with the thunder of their boisterous glee.

Formed by Erosion.

Livingstone, who discovered the falls, believed that some geologic cataclysm had opened a crack in the basalt plateau over which the Zambesi flows and that the river, pouring into this cleft, worked its way out on a lower level, leaving the great falls in the narrow gorge.

Geologists of the present day, however, deny Livingstone's theory regarding the phenomenon of the formation of the falls, claiming that it is due entirely to the processes of erosion, and that the river, by increasing friction through innumerable ages, has gradually frittered to granular atoms the dense rock and engraved the deep channels of the tortuous canyon. The basaltic rock which forms the greater portion of Rhodesia is of volcanic origin, proof of which is evidenced in the great lava-flows, which have been poured out in successive waves, covering the country in differing strata of varying porosity hundreds, if not thousands, of feet deep. Through this the percolating waters have deposited in the cavities the beautiful agates, chalcedony of various hues, quartz crystals, and zeolites that are found in abundance along the projecting surfaces of these amygdaloidal rocks, many specimens of which are found in the exposed gravel of the river bed.

It is said that these Katoka lavas, in consolidating, created a system of shrinkage cracks, with occasional long lines of "faultings," or fractures, which constituted planes of weakness that materially facilitated the erosive action of the river.

If this theory is correct, it is possible that the fissure into which the river plunges at the falls is due to a fault-plane, where a vertical belt of comparatively soft material breaks the continuity of the harder basalt, and this belt or vein, connecting with others of the same or similar character, has been washed out or excavated by the undermining action of the river, thus explaining the complex phenomena of the falls and zigzag canyons.

Willing to Hear

Jerry—You have heard of the fight between David and Goliath?

Mac—I don't read the sport page, but if it's some more scandal, let's hear.

Why Weather Affects Times of Leaf Fall

J. R. Magness, physiologist in the United States bureau of plant industry, has prepared the following statement for the Pathfinder Magazine relative to the cause of the falling of leaves from trees:

"Under the climatic conditions prevailing in the middle and northern latitudes of the United States it is possible that frost is the chief factor in determining the exact time of leaf fall. If the autumn months remain warm the trees do not shed their leaves until very much later than they do at the present time. Most trees, however, have a distinct rest period, even in tropical climates. These periods consist primarily of a time when no growth occurs, followed by a period of growth. With our deciduous trees various things may cause leaf fall. Severe drought will sometimes have this result. It is also possible that the accumulation of materials in the leaf, such as salts that are carried from the soil into the leaves, is deposited and may be in part responsible for leaf fall. Cold weather and frosts seem to be most important factors."

Why Lava Is Lava

Lava is an Italian word which means "to wash." Long before Mount Vesuvius covered several cities with its spume the people of Italy, and of Naples in particular, were wont to refer to big rains as "lava."

This meant that the heavy rains washed the streets of Naples, which were dirtier than they are now. As a matter of fact, plague and pestilence would have carried off everybody in Naples one or two thousands of years ago had it not been for the big rainstorms which periodically cleaned the streets—the only kind of street cleaning Naples knew.

When Vesuvius began to emit fluid rock the Neapolitans referred to the streams of molten rock as "lava" and the name has ever since been used to designate the spurts.—Philadelphia Inquirer.

WHY

Birds Are So Regular in Their Migrations

Scientists believe they have, at last, discovered why birds leave their spring and summer haunts in the North, and fly south on definite days every year.

It is not, they are convinced, because of the change in the weather, nor because food is hard to get in the cold parts of the country during the winter months, that the little feathered folk wing their way to the sunny woods and fields below the Mason-Dixon line. It is the length of the day that counts with the birds, and when darkness comes early in the days of the fall, they go searching for longer, brighter days.

With a number of the migrating birds, the arrival date in the South is always the same, year after year. Neither food nor temperature can be held accountable for this, according to Prof. William Rowan, a Boston naturalist, writing in Nature, an English magazine. Length of daylight is the only factor of environment that regulates migration, he says.

Professor Rowan strengthens his theory by referring to the well-known and important discoveries concerning the influence of daylight upon plants. If the rate of growth and the time of flowering in a plant are decided to a great extent by daylight, it can also be supposed that it affects animals.

Through experiments, Professor Rowan has proved that increasing daylight by artificial light will cause early growth of gonads, or "germ-glands," in birds in the dead of winter. Usually these gonads grow only after the birds have migrated. They produce song in the male birds.

Birds that have been kept by Professor Rowan in the artificial light do not migrate, no matter how cold the weather is. Other birds, kept only for a short time, disappeared for regions of longer daylight as soon as they were released.

Therefore, says Professor Rowan, it appears to be true that the length of the day has the effect on birds, which, it has always been thought, was due to temperature and food.

Why Porpoise Makes Plunges From Water

It is not in mere playfulness that the porpoise leaps about in the sea, but for a very practical reason, points out Mack Sennett, the movie producer, in an article in Liberty, describing a recent trip he made to photograph the underwater life off the coast of Lower California. He writes:

"One of the mysteries of the sea to me has been the leaping of the porpoise. To my great satisfaction we got innumerable photographs of them in their quieter moments under the water, swimming in a manner quite sedate and demure, always in pairs. I learned that their purpose in leaping is to store up air in the lungs. Like the whale, the porpoise is a mammal. The whale comes up to blow and take air into his lungs, but the porpoise does the same thing on the fly. He literally compresses the air. He takes a gulp and forces it down into his air chambers, like stored-up air in a machine; then takes another gulp and compresses that until he has a lungful."

Why Polar Bear Is King

"I am convinced that the polar bear is the most dangerous beast of prey among the land animals of the North American continent," writes Donald B. MacMillan in Field and Stream. "He is almost as large as the Kodiak bear of southwestern Alaska and very few animals are his superior in intelligence.

"Moreover, his white fur makes him difficult to see against a background of snow or ice. He has no cause for fear, for he expects every living thing he meets to make way for him. He is the king of the Arctic and he knows it."

Why Moon Changes Size

Have you ever wondered why the rising moon looks bigger than it does a few hours later? When the moon is just above the horizon, the eye sees it without strain, but when it is near its zenith the eye muscles must be contorted to unaccustomed tensions and the moon appears smaller.—American Magazine.

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