

Kilimanjaro (19340ft. 5896mts.)

Mt. Kilimanjaro is the highest mountain in Africa, the highest free-standing mountain in the world, and one of the largest volcanoes ever to break through the earth's crust. Seen from a distance it looks as though it is sitting on the clouds. Although only three degrees south of the equator, glaciers and snow cover its peak. Almost four miles high, it can be seen on a clear day from more than one hundred miles away.

And this is not all: within its one great ecosystem lies almost every kind of environment found on earth. In the space of a few days you will pass, as it were, from the equator to the Arctic: through tropical rain forest, Alpine meadows, moorland, desert uplands, to snow and ice. We can trace the grand process of evolution in reverse: from the animals of the forest to the first stirrings of bacterial life on the summit.

Mount Kilimanjaro is located 3 degrees south of the equator just inside Tanzania's northern border. The northern slopes face the Amboseli in Kenya, from where this photograph was taken. Kilimanjaro and the parks of north Tanzania are accessible after an eight to ten hours flight from Europe.

A) Glacier, Desert, and Rock - A Brief Geological History

The development of high plateaux and mountains in East Africa began 30 to 40 million years ago in early Tertiary times. Profound geological activity led to rift valley formation, fissures in the earth's crust and the formation of volcanic cones. Kilimanjaro's main period of development was however during the last million years.

Weaknesses in the earth's crust resulting from the Tertiary upheavals allowed outflows of lava that created the three domes of Shira, Mawenzi and Kibo. It is likely that Shira and Mawenzi preceded Kibo the highest of Kilimanjaro's three cones.

Shira sank to become a caldera as Kibo's outflows released pressure below the collapsing volcano. Erosion and filling with lava flow from Kibo have left the wonderful Shira Plateau still rimmed with remnants of the once magnificent cone.

Mawenzi is the most spectacular of the three volcanic centres with its sharp pinnacles and ridges and dramatic sheer eastern face. Mawenzi did not sink to become a caldera like Shira, rather it has been eroded by the elements with the harder volcanic rocks remaining as the dramatic, fairy tale pinnacles that we see today.

Kibo, the object of most climbers' attentions, is the youngest and now the highest of Kilimanjaro's cones and we can assume that much of the activity that created Kibo occurred in the last 500,000 years. The main crater floor has partially collapsed, leaving inner walls on the south side as high as 180 metres. Within this caldera has developed an Inner Cone, whose centre is the Reusch Crater. Fumaroles testify to the dormant status of Kilimanjaro.

Throughout the Kilimanjaro massif are found parasite craters - initially formed by lava flowing from small breaches or fissures in the sides of the old volcanic cones. On the popular route Maundi Crater near Mandara Hut is a perfect example of the parasite cone. To the north west the wonderful Lent Group offer a more dramatic and remote example of parasite activity.

High altitude and periods of intense cold led to the formation of glaciers on the higher points of Kilimanjaro. Still spectacularly evident today in the form of icefields, rim glaciers, and the incredible ice cliffs found actually within the crater, these ice formations are, nevertheless, receding as the globe warms up.

The setting for these ice sculptures is a high altitude desert of rock slab, scree, and rugged formations. Being above the normal cloud height, precipitation is so limited on these higher slopes of Kilimanjaro that here is truly found a high altitude desert.

Kilimanjaro Fact File

B) Giants and Endemics - Flora & Fauna of Kilimanjaro

Relative altitude governs the vegetation zones, and thus the fauna, found on Kilimanjaro. Various altitude zones or belts around the Kilimanjaro massif reveal an amazing variety of flora and fauna including some endemic species.

The high “arctic” summits of Kibo and Mawenzi offer the climber little other than lichens, rock and ice. A few mammals stray high. Buffalo visit the caves of the deserted north flank, a rare breed of eland are resident on Shira Plateau and the north flank. Leopard and wild dog have climbed as far as the crater of Kibo, and lion pugmarks have been seen at nearly 16000 feet.

Whereas the rain forest belt is rich in majestic trees, smaller plants including the endemic Kilimanjari Impatiens. Large and small mammals from elephant to colobus monkey to tree hyrax, and an amazing variety of birdlife including bulbul, hornbill and turaco make the journey through the montane forest fascinating.

In between these extremes we find lower and upper heath zones, with giant heathers and plants endemic to the east African highlands such as the giant lobelias and senecas. Everlastings and proteas add to the variety. We rarely see mammals at this altitude because they are so shy, but we will see the spoor of eland, buffalo, and occasionally lion and leopard. The birdlife is relatively rich especially with eagles, ravens and lammergeier.

Above the heath zone the high altitude desert offers a moonscape of dramatically austere terrain. Here we find lichens and a few groundrels and everlastings. This is after all a desert zone.

What is clear is that Kilimanjaro offers the climber a view of the major eco-zones known to humankind. **To climb this majestic mountain is to witness the process of the world’s evolution in reverse - from the hot equatorial plains of Africa to the arctic icefields that still exist on the summit four miles above the plains.**

C) From Minus 20 to Plus 40 - the Climate of Kilimanjaro

Equatorial to Arctic conditions are present on Kilimanjaro. Lowlands and even relatively high sheltered valleys can reach temperatures as high as 40 degrees Celsius. Night-time temperatures generally fall below zero and can drop as low as minus 20 degrees Celsius. The rainy seasons are the same as for northern Tanzania and bring rain and snow fall March to May, and occasional short rains during the period late October to late November. The better months for climbing are January and February, with September, October and December generally being good. However it must be noted that Kilimanjaro has a typical montane climate - unpredictable even in the “driest” seasons. A bright clear morning on Shira Plateau can turn to rain and sleet in the afternoon as the hot air rises from the lowland valleys. Then as evening falls the sky clears and a beautiful starlit canopy appears overhead.

The lesson of climate for all Kilimanjaro climbers is to be prepared for high altitude sun that can burn the skin severely; and for cold nights that demand four seasons sleeping bags and good thermal clothing. To venture into this climatic zone without the right equipment is foolhardy and dangerous.

D) Chagga and Climbers - the Peoples of Kilimanjaro

The lower slopes of Kilimanjaro - exceedingly rich in flora and fauna - have been inhabited by African peoples for hundreds of generations. It is probable that the first hunter gatherers were displaced by later waves of Bantu and Nilotic peoples. Today the main African tribe to inhabit the Kilimanjaro region is the Wachagga people. They are agriculturists and make good use of the fertile lower slopes to grow tea, coffee, bananas and corn.

Early European explorers and missionaries of the mid nineteenth century brought Kilimanjaro to the attention of the world. One hundred and fifty years ago Johannes Rebman, a German born missionary, saw the snow-capped Kilimanjaro and was later ridiculed in Europe for believing that snow could fall on the equator. Thirteen years later Baron von der Decken and British geologist Richard Thornton proved the presence of snow. Hans Meyer made the first successful climb to the summit in 1889. Since then the mountain has been scaled by hundreds of thousands of travellers and myriad new routes, including difficult technical routes, have been opened up.