## **How was Victoria Falls Formed?**

How was Victoria Falls formed? The waterfall that is the major tourist attraction in Southern Africa and seen by thousands of sightseers every year did not always look like it does today.



Satellite View of the Zambezi River, the Waterfall and Gorges

It has taken thousands of years and millions of tonnes of water to reach its current appearance and position on the Zambezi River.

## **How was Victoria Falls Formed – the Geology**

In the <u>Jurassic</u> period of Earths evolution, volcanic activity in the region deposited thick basalt molten rock that then solidified. This was the start of the geology of Victoria Falls. This flat sheet of basalt extends as a flat plateau for hundreds of kilometres in every direction surrounding the falls and over which the Zambezi river flows before reaching the falls. The river's course has many little islands, with these increasing as the river nears the waterfall.



Geology of Victoria Falls

During the solidification process, large cracks in the hard basalt developed, which were subsequently filled with sandstone over time. With the Zambezi River finding its way from its source to the ocean, the erosive power of the currents from seasonal water flow eroded the soft sandstone from the cracks or basalt fissures, forming the first of many waterfalls to come.

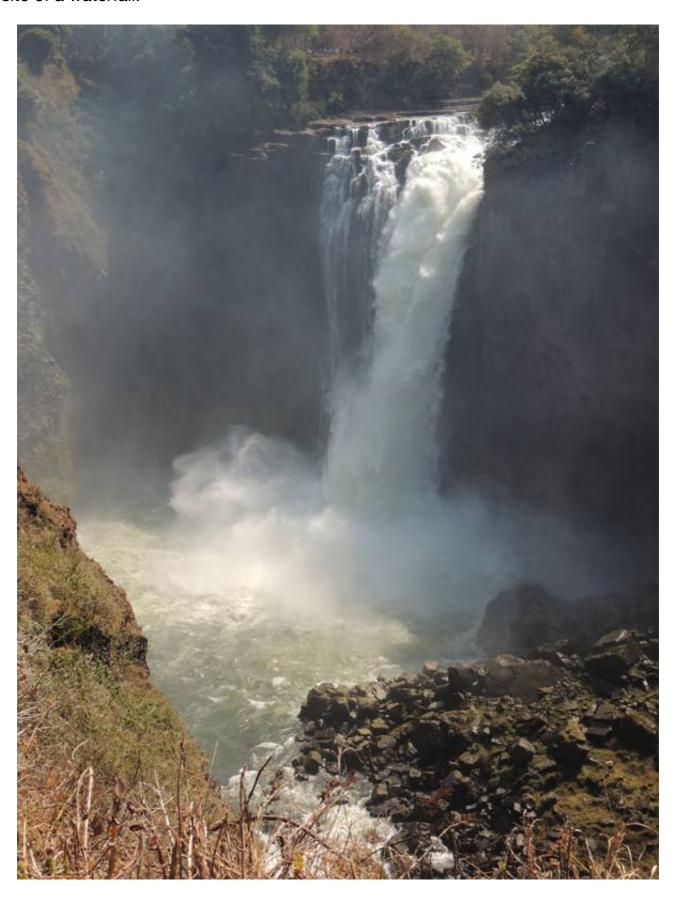
## The Formation of Victoria Falls

The Victoria Falls formation we see today, took place over a period of approximately 2000 years. There have been seven different waterfalls as the Zambezi River carved itself a path through the basalt rock. This succeeded in pushing the current waterfall upstream by 8 kilometres from the original falls creating a series of gorges. This remarkable natural phenomenon can be seen in the zigzag formation of the gorges below the waterfall, which cover a distance of 150 kilometres downstream. Looking at the sizes of these fissures it is safe to say that there has been a wider waterfall than the present one we see today. The water torrent that gushes through these deep fissures creating rapids is considered to be one of the most exciting in the world, boasting some Class 5 rapids.

These gorges are a haven for raptors who relish the wind eddies and vertical 125 metre high cliffs which are breeding grounds for four species of endangered birds, the Taita Falcon, Black Eagle, Peregrine Falcon, Augur Buzzard and the Black Stork appreciates these conditions too. After leaving these narrow gorges, the river naturally widens out and slows down to its gentle meander through the African plains

to Lake Kariba 200 kilometres downstream.

Collectively these Gorges are commonly referred to as the Batoka Gorge, but officially each gorge is numbered in order starting from the youngest, which is the current waterfall, known as the First Gorge, to the Fifth Gorge, then the Songwe Gorge and lastly the official Batoka Gorge. Each of these gorges represents a past site of a waterfall.



## The Devils Cataract

The Devils Cataract Falls on the edge of the falls is believed to be the start of the next fissure being eroded by the pounding of ceaseless water. This will cut diagonally behind the existing waterfall and the current falls will become another gorge for the Zambezi River to thunder through. This will demonstrate over the next hundred years the question of how was Victoria Falls formed and the development of the gorges.

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