

1. YELLOWSTONE & OUR RELATIONSHIP WITH THE EARTH

Beautiful landscape photography.

[NARRATOR]

As we look across the landscape, it strikes us as still and serene.

The ground beneath our feet may feel immobile and permanent.

It is as if the Earth were a silent backdrop to our lives, detached from the daily rhythms of our existence.

This, however, is an illusion.

Shot of a BIG EXPLOSION, followed by geysers and hot springs.

In truth, the Earth is never still.

It is a powerful, unstable place that is always changing.

Filled with immeasurable beauty and wildness, Yellowstone National Park draws us into our planet's mystery...

...and gives us a rare opportunity to witness our Earth as it really is.

*Title: **Yellowstone: Land to Life***

2. YELLOWSTONE'S GEOLOGIC PAST

Aerial shots of Absaroka Mountains.

In Yellowstone, everything is at once ancient and new.

Geologic forces shape virtually everything that happens here today.

Hundreds of millions of years ago, this land was as flat as the ancient seas that lapped over it.

As the Rocky Mountains rose, the seas retreated.

Our restless Earth began pushing magma up from deep below.

Volcanoes pierced the sky, forming the rugged, majestic Absaroka Mountains.

Shots of Gallatin and Washburn Ranges

Then, eons later, a series of super-volcanoes exploded.

The most recent — occurring in the heart of Yellowstone — was so catastrophic that within a matter of days, perhaps hours, an entire mountain range was obliterated.

All that remained was a 45 mile wide crater — or caldera.

Aerial view of today's caldera.

Today this tranquil landscape hides the caldera...

...so vast that it can be easy to overlook.

3. YELLOWSTONE'S PAST INFLUENCES LIFE TODAY

Time-lapse photography

These ancient and more-recent eruptions have shaped the land we see today.

The volcanoes' presence still lingers in the soil...

...and influences Yellowstone's vegetation.

Shots of subalpine fir forests, Englemann spruce forests, and Dunraven Pass with meadows of wildflowers

The older eruptions spewed andesitic lava that has weathered into soil rich with nutrients.

This soil gives the Park its elegant subalpine fir and Engelmann spruce forests.

And exuberant meadows of wildflowers.

Lodgepole pine forests.

The more-recent eruptions oozed rhyolite lava.

This lava has yielded soil so poor in nutrients that only vegetation as hardy as the spindly lodgepole pine can prevail.

Hayden Valley.

Boulders in valley.

Geology also influences climate and weather patterns in the Park.

Volcanic forces pushed the Yellowstone Plateau higher than the surrounding areas. The land then channels storms onto the plateau, where they leave up to 12 feet of snowpack.

The cold, high elevation also helped form colossal glaciers that once buried Yellowstone under as much as 4,000 feet of ice.

These glaciers churned and tilled the land, carving gentle U-shaped valleys...

...transporting enormous boulders...

...and leaving behind soil well-suited for grasslands.

Bison eating in Hayden valley.

These grasslands support large herds of bison and elk.

Montage of animals.

Thus, past geologic events influence not only today's plant life, but a rich, diverse array of wildlife as well.

These animals live in rhythm with the land — and its seasons.

Wildlife in snow.

Wolves.

Bison near the hot springs.

Firehole River. Thermal runoff heats the river.

Rivers running wildly.

In spring, Yellowstone's rivers roar with snowmelt.

In places where the rock is hard and erodes slowly, water bends to the shape of the land.

Grand Canyon falls and canyon walls.

Where the rock is softer, the rivers slice down through the earth...

...and reveal, layered in the walls of Yellowstone's Grand Canyon...

...a half-million years of geologic history.

4. YELLOWSTONE'S GEOLOGY TODAY

Yellowstone Lake at dawn.

At first, Yellowstone may seem alien and mysterious.

But it is in this very strangeness that we are given a rare window into our planet.

Shots of geysers and fumaroles — close up on steam.

Its restlessness.

Its unpredictability.

It reminds us that buried everywhere beneath the Earth's surface lies an inner, raging heat.

Pull back to reveal geysers and fumaroles.

Gurgling hot springs.

In Yellowstone, the magma still lies just a few miles beneath our feet.

The volcano remains an active force...

...fueling more than 12,000 hydrothermal features...

...more mudpots, fumaroles, hot springs, and geysers than exist in the rest of the world combined.

Upper Basin geysers.

Mudpots.

We begin to feel the power of our planet at work — at its most elemental, its most visceral.

Reminding us how fragile life is.

Fumeroles.

It is as if we are watching two wildly different worlds collide — the hidden Earth of turmoil and the Earth of air and life.

Geysers.

Snow-melt and rain seep down through the rocks to be super-heated and then recycled back to the surface in spectacular convulsions.

A montage of limestone sculptures at Mammoth Springs.

Hot water carries dissolved minerals from deep below to form new rocks before our eyes.

Hot springs tinged with “cool” blue colors.

The hot springs dazzle with radiant blue and may seem cool and inviting. But the water bubbling up can be scalding hot — or even extremely acidic.

Close-ups of many kinds of bacteria.

Despite these harsh conditions, single-cell micro-organisms, life at its most basic thrives here in abundance...

Close-up of archaea.

...including archaea, simple organisms believed to be similar to the first forms of life on our planet.

How ironic. Our distant origins occurred in an incubator where today’s advanced forms of life would perish in an instant.

5. OUR RELATIONSHIP WITH YELLOWSTONE

Beautiful shots of the Grand Canyon...

...dissolve into Thomas Moran’s paintings.

The beauty we witness at Yellowstone inspires our imagination.

We romanticize it and marvel at it.

Vistas, beautiful patterns and colors in hot springs, and then volcanic rocks under a microscope.

We thrill to nature’s stunning colors and patterns.

Fly fisherman.

Girl crossing stream.

Return to hot springs and geysers.

Yet, what we behold with awe and joy is only temporary — a flicker of an eye in the life of our planet.

Past and present geologic forces will continue to reshape Yellowstone.

These forces...

...usually subtle...

...occasionally dramatic...

...will inevitably transform all that we see before us.

And life, as resilient as ever, will adapt.

Moon rises over the horizon.

At times, it may be easier to understand what exists thousands of miles away, than what lies a few miles beneath our feet.

Yellowstone rock cliffs.

Reprise aerial shots of Yellowstone.

But here on the Earth's uncertain surface, we witness how deeply life is intertwined with the land — as Yellowstone reveals its mysterious beauty.

Fade to black.