

Your Souvenir

Forest Guide

OF THE

Colorado

Petrified Forest

FLORISSANT, COLORADO

— INSTRUCTIONS —

Park on the left side of lodge. Tickets will be collected and visitors will see the fireplace, lodge, and world's largest Petrified Tree. Visitors will then take the one mile drive through the fossil bed and stump area.

PLEASE HELP US PRESERVE
THESE SPECIMENS FOR
FUTURE GENERATIONS
THANK YOU!

**Colorado
Petrified
Forest**

The Florissant Lake Story

TWENTY-FIVE MILLION YEARS AGO, a huge hardwood forest covered the central part of Colorado. In comparison with a hardwood forest of today, this Colorado forest was unique. For it contained not only trees of the hardwood variety, i.e., walnut, oak, maple, but also trees that are native now of China, West Indies, Mexico and California. Man would never have known of this forest if the turn of events had been different. Instead, a quirk of nature has preserved the record for posterity. The story of this quirk of nature is a very interesting pageant.

In a small valley near the present site of Florissant, several minor volcanos became active. Millions of tons of volcanic ash showered the region burying the trunks of various trees. At the same time the volcanic ash formed a dam across the small valley stream, and continued to heap tons of material on the dam site until an impressive lake of 12 square miles was formed. This action didn't happen over night — it took several years—and, of course, the plant life, etc. not within the immediate area continued to live in the semi-tropical climate which existed in the area at that time. Year after year, the stream carried tons of sediment into the lake, depositing the material in thick and sometimes thin layers depending on the tempo of the stream. Leaves, insects, fish, and plant life of every description became imbedded in the layers of sediment. Thousands of years later, a huge mud-flow covered the area and the lake drained. The mud-flow hardened and furnished the protective covering which preserved the record of the past from erosion.

Twenty-five million years later, 1874, a bespectacled, old government geologist and party stumbled on a gigantic white tree which had earlier been described to him by a Ute Indian chief. Upon further investigation, immense deposits of fossil material were discovered. Under Government finance, the geologist, Samuel L. Scudder, spent several years digging in the area. During that time, he published numerous reports describing unbelievable findings. One report announced the discovery of five new butterfly species. At that time there were only five known species, and even today only a handful. Since that time, museums and universities the world over have collected invaluable specimens, until the Florissant Fossil Beds

have gained an unequalled reputation in the field of insects and leaves. More than one-thousand species of insects—including the tsetse fly of southern Africa—countless thousands of plant life varieties, fish and even birds, have been uncovered in the past seventy-five years. Yet there are still acres of fossil material to be investigated.

Today, the major remains of this pre-historic phenomenon are open to the general public to view and appreciate the miracle of the ages. Visitors may even dig in the famous fossil beds. The site is located two miles south of Florissant on Highway 9 and is known as the Colorado Petrified Forest.

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I — REX ARBORAE (King of the Forest)

Statistics: Sequoia Redwood, similar to the California species—World's Largest Petrified Tree—74 ft. cir.—14 ft. tall—Weight, 40 tons.

Background: Twenty-five million years ago a huge hardwood forest covered the central part of Colorado. The hardwood forest of that age contained not only hardwood trees, walnut, oak, maple, etc., but also redwood and trees that are found today in such countries as China, Mexico, and the West Indies. The climate was very mild and semi-tropical, and the elevation was between 5,000 and 7,000 ft. Since that time, the climate and elevation have both changed. (Present elevation is 8,330).

Data: Note the four steel bands near the top of the tree. In 1892, an attempt was made to split the tree in four sections to facilitate shipment to the Chicago World's Fair. The toothless saws broke, but not until 40 ft. had been cut off. The fully petrified roots extend over 100 ft. under the ground. They have been burned by the ash that surrounds the tree. The ash contains 14 percent aluminum, as well as seismotite, which is used in Dutch Cleanser. The tree was over 5,000 years old before petrification, and 350 ft. tall.

How was the tree petrified? The trunk was buried in volcanic ash which preserved it from decomposition. Later, the area was covered with a mineral water, which seeped through the ash and into the wood cells. Gradually, the

mineral (silica) contained in the water replaced the wood, cell by cell. Today, the wood is 89 per cent silica and 11 per cent wood fiber.

II—SMALL REDWOOD STUMP.

III—REDWOOD LOG extending 65 feet into the hill.

IV—SITE OF THE FAMOUS FLORISSANT LAKE FOSSIL BEDS.

Thousands of species of leaves and plant life, insects, fish, and even birds have been uncovered in the past 75 years. Some of the unusual fossil discoveries include two present day natives of China, *Ailanthus* (The Chinese Tree of Heaven) and *Koelreuteria*; as well as three natives of the West Indies and warmer areas of Mexico: *Cedrela*, (Spanish Cedar) *Ostronium* and *Elephruim Phenacophylla*. Unusual insects include the Tsetse fly of Southern Africa, five butterfly species, and giant Katydid.

V—This specimen shows the prevalence of PETRIFIED WOOD in the area.

If one were to dig a few feet below the top soil, additional trees and logs could be uncovered. In fact, a number of trees have been discovered, but left covered because of the rapid rate of deterioration after exposure to the elements.

VI—POPLAR—Some of the wood is softer and is more easily destroyed.

VII—SEQUOIA REDWOOD—61 ft. cir.

The top soil has been left in place to help preserve it.

VIII—COTTONWOOD—A member of the popular family.

IX—ASH—Well preserved due to the hard elastic grain.

(The small stump above it is a sycamore).

X—REDWOOD—41 ft. cir., and JACK PINE.

Of the many Petrified specimens found in the forest, only the Jack Pine still grows in the area.

XI—MT. BURL WALNUT.

When fully exposed the cir. is 37 ft.—3700 yrs. old before petrification. One of the largest walnut trees in existence.

XII—MOUNTAIN ROLL.

The corrugated grain and lack of growth rings enabled scientists to identify it as a native of Norway that grew here millions of years ago.