

GINKGO

PETRIFIED FOREST MUSEUM



Washington State Parks and Recreation Commission
522 South Franklin Olympia, Washington

The Ginkgo Petrified Forest Story

The GINKGO PETRIFIED FOREST represents one of the most unusual fossil localities in the world. Entombed in the basaltic lava flows of the hills lie the remains of a forest which flourished and died millions of years ago. Few fossil beds yield a flora so diverse as that represented by the species found at Ginkgo, and only rarely are fossils preserved in lava flows.

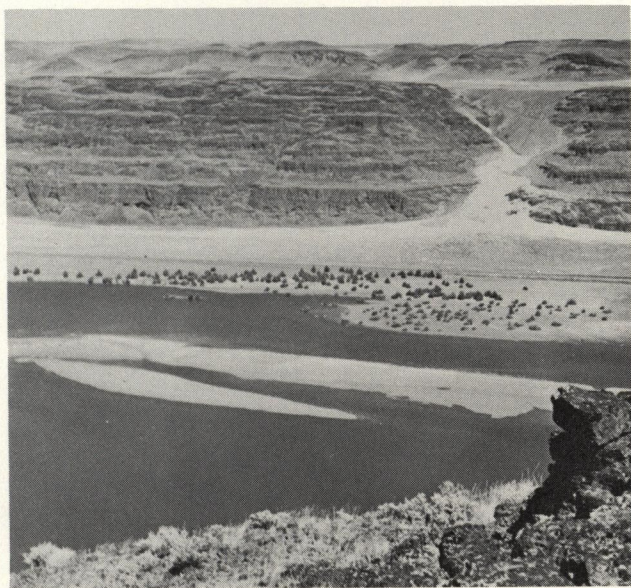
In the basalt lie thousands of petrified logs, their cell structure so perfectly preserved that it has been possible to identify more than fifty genera and two hundred species. These fossil woods include some types extinct long before the arrival of man and many others still living today. Among them are logs of the Ginkgo, for which this area is named.

THE GINKGO, last surviving member of a family of trees which first appeared more than 200 million years ago, is now a popular ornamental tree. This "living fossil" apparently escaped extinction only because the Chinese Buddhists cultivated it for centuries in their temple grounds. Though Ginkgo leaves have been collected from many parts of the world, only in a few areas has petrified Ginkgo wood been found.

Geology

GEOLOGIC EVENTS leading to preservation of these petrified logs go back 15 or 20 million years, before uplift of the Cascade mountains, to what geologists call the Miocene epoch. During the Miocene, great floods of basaltic lava welled quietly up through deep cracks or fissures in the earth's crust, spreading rapidly over the landscape. In the long intervals between some of the eruptions, streams blocked by the lava flows backed up to form lakes and marshes. Through the years soil accumulated. Trees, such as cypress

Hills show successive lava flows



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in the swamps and hardwoods in the upland regions, grew rapidly, nourished by moisture-laden winds from the Pacific Ocean.

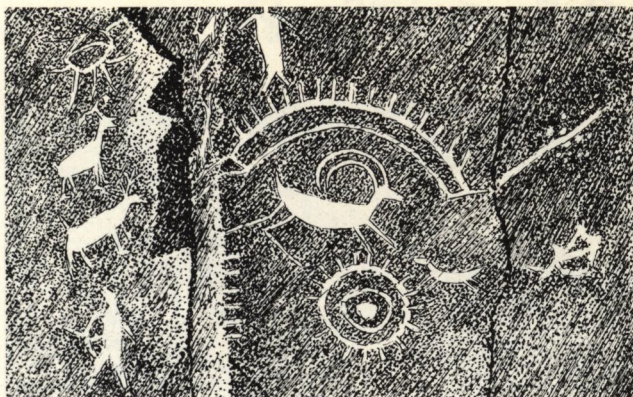
From northern highlands, logs of spruce, fir, pine and sequoia were swept down the rivers at flood stage. Here they lodged on lake shores and in the cypress swamps, the logs mingling with those of hardwoods, such as oak and elm. In time, volcanic fissures opened again, and the lava flowed over the swamps, lakes and streams with their accumulation of logs of many species. Eventually, repeated lava eruptions built up to a thickness exceeding two miles, producing one of the great lava fields of the world—the Columbia Plateau.

Water seeping down through the lavas carried silica which penetrated the buried logs. The wood fibers were impregnated and encased by silica causing their present rock-like condition. Mineral impurities in the silica gave the petrified logs their bright coloring—red, brown, yellow or white.

At the close of the Miocene epoch, uplift of the Cascade mountains cut off the moist winds from the west, leaving eastern Washington in its present desert state. In the millions of years since the Miocene, the lavas have been folded and broken by pressures within the earth's crust. Erosion by rivers and floods from melting glaciers cut into the lava plateau, down through one flow after another, exposing the logs as we see them today. Buried by basaltic lava, encased in silica, and exposed by eroding streams and glacial waters, the logs of Ginkgo Petrified Forest remain in testimony to the moist climate and lush forests of central Washington millions of years ago.

Indian Art

INDIAN PETROGLYPHS included in the museum collections are on display south of the museum balcony. These were obtained from basalt cliffs along the Columbia River in the vicinity of Vantage. With the completion of Wanapum Dam these specimens would have been covered by water had they not been salvaged. Such petroglyphs, sometimes called "picture rocks", are cut or pecked into stone, and represent art work of early Indian inhabitants of the



Indian art

Columbia Plateau region. The precise meaning or intention of these drawings is a riddle not yet solved. A rich area archaeologically, evidence of human habitation extending back at least 10,000 years ago has been found. Implements left by these people include many artifacts made from petrified wood, and arrowheads unexcelled in their beauty, symmetry and fine workmanship.

Development of the Area

PRESERVATION OF THE SCIENTIFIC REMAINS was inaugurated in 1934, when the first tract of state land was set aside to protect the unusually rich exposures of petrified logs and the exceptional variety of fossil woods in this locality. Although fossil woods had been reported from the Columbia Plateau as far back as 1898, this area was not well known until 1931, when it was brought to public attention by Professor George F. Beck of the Central Washington State College at Ellensburg.

Development was initiated through a cooperative program involving the State of Washington, the National Park Service and the Civilian Conservation Corps. Since that time the State Parks and Recreation Commission has built the present modern museum and developed exhibits which interpret the geologic story. Many polished specimens of petrified wood from the area are displayed, including the outstanding F. W. Bobo collection. Partially excavated petrified logs may be seen in their natural setting at the park trailside exhibit, 2½ miles west of the museum on U. S. 10. The state reserve covers approximately 6,000 acres.

MUSEUM HOURS during the summer months are 8 a. m. to 7 p. m. daily, and 9 a. m. to 5 p. m. during the winter months, weather permitting. The Ranger is available for information on the area and for assistance in planning group tours.

ADDRESS: Ranger

Ginkgo Petrified Forest Museum

Vantage, Washington.