... the Chief of the Below World was driven into his home, and the top of the mountain fell upon him. When the morning sun rose, the high mountain was gone. The mountain which the Chief of the Below World had called his own no longer towered ....

The rain fell. For many years, rain fell in torrents and filled the great hole that was made when the mountain fell upon the Chief of the Below World. The Curse of Fire was lifted. Peace and quiet covered the earth. Never again did the Chief of the Below World come up from his home. Never again did his voice frighten the people.

From Indian Legends of the Pacific Northwest

HOW TO ENJOY THE PARK

First, read this booklet. The few minutes spent will help you to plan your visit and to make your experiences much more meaningful.

Second, stop at the exhibit building in Rim Village. In this building are exhibits on wildflowers, rocks, wildlife, and other natural history subjects. The naturalist in attendance will be happy to help you schedule your activities. He will explain the processes that created Crater Lake and other processes that are continuing to change it. Here, too, you can purchase publications on the formation of the lake, plant-life and wildlife, and the Indian legends. Schedules of naturalist activities are posted here.

We urge everyone to attend the evening campfire programs and explore the forest and lake with a park naturalist as guide. (For a description of these activities, see page 8.) Your orientation will be completed by a visit to the Sinnott Memorial Overlook building, just below the exhibit building, within the caldera. The broad terrace presents a magnificent panorama, and mounted fieldglasses with explanatory labels provide a closeup view of certain features. In the exhibit room, paintings and photographs portray the varying moods of the lake.

WHAT TO SEE AND DO ON YOUR OWN

You will want to explore much of the park by yourself. Roads lead to most places of interest, and delightful trails will guide you to others. The booklet Along Crater Lake will be an invaluable aid to your automobile explorations. Also, look for the interpretive markers at many of the turnouts; they tell of the natural forces which have made the beauty you see around you.

Rim Drive, encircling the caldera, presents observation points from which to view and photograph the lake. You will begin to comprehend the size and scenic grandeur of Crater Lake once you have taken this 35-mile drive.

The Pinnacles are an easy 6 miles from Rim Drive at Kerr Notch. Here, you will see the needlelike spires of pumice and scoria rising out of the 200-foot-deep canyon of Wheeler Creek. Long ago, this area was a veritable "valley of 10,000 smokes," where small, loose rock fragments solidified around the gas and steam vents. Later, water erosion carried away the softer surrounding material, revealing the harder pinnacles. In Sand Creek canyon and in Godfrey Glen in Annie Creek canyon, you may see similar spires and fluted columns.

Cloudcap, reached by a short spur from Rim Drive, provides an excellent observation point. At an elevation of over 7,800 feet, among the windswept whitebark pines, you look down 1,600 feet to the lake surface, gaining a view which complements that from Sinnott Memorial Overlook.

North Entrance Road leads through lodgepole pine forests and the Pumice Desert. Try to visualize this area just after it was devastated by the glowing avalanche of pumice (a frothy lava) that covered it during the climatic eruptions of Mount Mazama. The lodgepole pine, a pioneering tree, has succeeded in reclaiming most of the area except the Pumice Desert. Even here the lodgepole may eventually win out and grow on top of a pumice cover that is as much as 200 feet thick.

When you drive along Oreg. 62 from either the South or West Entrances, you will see forests that now grow where molten lavas once poured down the mountainside. You will also see vertical-walled canyons cut through the lavas by Annie and Castle Creeks.
Wizard Island is actually a volcano within a volcano. You can reach it by boat and climb the trail to the summit, about 760 feet above the lake. Once on top, you can climb down into the crater, which is about 90 feet deep and 300 feet wide.

Launch trips around the lake will give you a closeup view of the inside of a volcano and of the multicolored lava cliffs, which are even more impressive when viewed from below. The Phantom Ship may remind you of a ship under sail in waters made even bluer by their closeness. The trips, regularly accompanied by park naturalists, start from the foot of Cleetwood Trail, and an enjoyable part of this experience is the walk into the caldera over this trail. You can secure further information about the trips at the visitor center or at the Crater Lake Lodge.

Cleetwood Trail, located on the northeast wall above Cleetwood Cove, leads to the lakeshore. This recently constructed trail descends gradually for 1.1 miles through a mixed evergreen forest to the boat landing. The launch trips start from this boat landing. You should allow 35 minutes for the trip down the trail and 45 minutes for the climb back.

Garfield Peak offers magnificent views of the lake and the surrounding region from its summit, 8,060 feet above sea level and almost 1,900 feet above the lake. You can reach the summit of the peak by following a 1.5-mile trail eastward from the lodge.

Discovery Point Trail is a delightful walk in the opposite direction from Garfield Peak. On this trail, you may see the first white man to see the lake, made his exciting discovery more than a hundred years ago. (See page 10.)

The Watchman, a peak on the west rim, rises more than 1,800 feet above the lake. You can reach the summit by taking a 0.8-mile trail from Rim Drive. Here you can see the forest lookout in operation. Exhibits in a lower room of the lookout building describe the life and death of a forest. Exceptional views extend in all directions, and on clear days you can see California's snowy Mount Shasta, more than 1,800 feet above the lake. You can reach the summit by climbing the trail. The grade is easy, however. Here, 8,926 feet above sea level, and almost 2,800 feet above the lake, you will be on the highest point in the park. The fire lookout on Mount Scott and The Watchman are major aids in protecting the forests of Crater Lake National Park and the surrounding national forests from the ravages of fire.

Castle Crest Wildflower Garden, 0.4 mile southeast of park headquarters, has a self-guiding nature trail with a guide booklet. Here you can stroll leisurely through forest and meadows, seeing the plants and, we hope, some of the wildlife.

**THE NATURALIST PROGRAM**

The National Park Service provides free naturalist services during the summer, so that you may have a more enjoyable visit and gain greater appreciation of the superlative natural features preserved in this park. Programs of current interpretive activities are conspicuously posted. Regardless of your age or interests, there is an activity for you. Information can be obtained from the park naturalist on duty at the exhibit building or from any other uniformed employee.

Talks on the origin of Crater Lake are given several times each day at Sinnott Memorial Overlook. A campfire program, consisting of announcements of the following day's activities, group singing, and a slide-illustrated talk, is held each evening at the Mazama Campground amphitheater south of Annie Spring junction. Similar programs are held indoors at community house in Rim Village. A half-hour illustrated talk is presented each evening at the Crater Lake Lodge. Talk topics change each night.

Guided trips are scheduled daily to points of interest within the park. The 2½-hour hikes along Garfield Peak or Discovery Point Trails start from the exhibit building. Boat trips start at the foot of Cleetwood Trail. The head of this trail is about 11 miles north and east around Rim Drive from Rim Village.

**WINTER VISITS**

You may thrill to the experience of driving between towering snowbanks along the park's open-all-year roads. Lying on the crest of the Cascades, which intercept moisture-laden clouds from the Pacific Ocean, Crater Lake National Park receives more than 50 feet of snow annually. The snowy splendor delights camera enthusiasts and also holds special appeal for those who seek the solitude and unblemished beauty of winter landscapes.

Mount Scott, directly across the lake from The Watchman, offers a somewhat longer hike. To reach the fire lookout on its summit, you must climb 1,230 feet over 2½ miles of trail. The grade is easy, however. Here, 8,926 feet above sea level, and almost 2,800 feet above the lake, you will be on the highest point in the park. The fire lookout on Mount Scott and The Watchman are major aids in protecting the forests of Crater Lake National Park and the surrounding national forests from the ravages of fire.

**DISCOVERY OF CRATER LAKE**

As you stand on the caldera rim, gazing across the blue lake—so remote, so unexpected in these high mountains, so impressive in its rugged surroundings—you may wonder how this scene affected the first man to behold it.
INDIAN LEGENDS ABOUT CRATER LAKE

The destruction of Mount Mazama was surely witnessed by man. Mount Mazama pumice has been found overlying Indian cultural remains in caves throughout central Oregon. Legends of the Klamath Indians tell how the "Chief of the Below World," Llao, a lesser deity, passed through the summit crater and sometimes stood on the mountaintop. At times, Skell, "Chief of the Above World," stood on top of Mount Shasta, some 100 miles to the south. The legends tell also of a war between the gods, a time of great destruction. At times, Skell, "Chief of the Above World," stood on top of Mount Shasta, some 100 miles to the south. The legends tell also of a war between the gods, a time of great destruction. The climax of the battle came when Llao's throne, Mount Mazama, collapsed within itself. This account of the mountain's destruction is remarkably like the geologists' explanation.

You can read other legends about the lake water, Wizard Island, and Llao Rock in Ella Clark's book. (See page 26.)

HOW CRATER LAKE WAS FORMED

Origin of the mountain. The slope that you ascend to the rim, and the calderas wall rising 500 to 2,000 feet above the water, are remnants of Mount Mazama. In comparatively recent geologic time, numerous volcanic peaks were formed near the western edge of a vast lava plateau that covered parts of what is now Oregon, Washington, Idaho, Montana, Nevada, and California. These peaks, among which Mount Mazama was one of the most commanding, formed a part of the Cascade Range. Tremendous volcanic activity built Mount Mazama out of successive lava flows and accumulations of volcanic debris—ash, cinder, and pumice. Later, streams and glaciers carved valleys in the sides of the volcano and deposited rock debris on the rims. You can see for yourself the layered character and different formations of the mountain. They are clearly exposed in many places within the calderas wall.

Origin of the caldera. In addition to extruding surface flows of lava, often force molten rock to great underground fissures. Subsequent hardening of this magma results in dikes, or walls, that are frequently harder than the enclosing rock. At Crater Lake the destruction of the mountain and erosion have exposed several dikes within the calderas wall. One of the finest examples you will see is the Devils Backbone.

Actions of streams and glaciers. Annie Creek, Castle Creek, and other streams are at work cutting their canyons ever deeper, even as they have been doing for centuries. Here streams earlier cut canyons down which glaciers flowed. Within the calderas wall are cross sections of stream-cut and accumulations of water-carried gravel and boulders. Look for markers indicating where glacial ice—carrying sand, pebbles, and boulders—scraped and polished rock surfaces over which it moved. Glacial polish and thick beds of glacial debris mark areas that glaciers have been moving over. You can see a large glacial deposit near the water's edge at the bottom of Cleetwood Trail.

Characteristics U-shaped valleys, such as Kerr Notch, Sun Notch, and Munson Valley on the southerly slopes of Mount Mazama, result when glaciers modify the V-shaped, youthful, stream-carved canyons. The lava flow that formed Llao Rock filled an ancient glacial valley. As you can see, the bottom of this flow is U-shaped. Forming of the caldera. Many geologists have concluded that the basin occupied by the lake resulted from the collapse and subsidence of the volcanic cone of Mount Mazama. This explanation was first proposed by J. S. Diller, of the U.S. Geological Survey, who considered that the support of the summit was weakened partly by drainage of great quantities of molten rock through subterranean cracks. Extensive study by Prof. Howel Williams, of the University of California, led him to practically the same conclusion.

His delightful, popular, and scientifically accurate book, Crater Lake, The Story of Its Origin, Williams describes great quantities of pumice extending more than 80 miles northeast of Mount Mazama. This pumice was blown from the mountain in a catastrophic event and was carried north—eastward by the prevailing winds. Analysis shows that this material flowed from the heart of the volcano and is not fine fragments of the original mountain walls. Following this eruption, the crater is believed to have literally boiled over, pouring out great quantities of frothy material in a series of glowing avalanches. These avalanches must have traveled at a terrific speed down the valleys, for those to the south and west did not begin to deposit their load until they had reached a distance of 4 to 5 miles. The greater quantity flowed down the mountain to the south and southwest for distances as great as 35 miles from the source. The total volume of the ejected lava was about 3 cubic miles. It is believed that an additional 1.5 cubic miles of old rock was carried away at the same time.

Accompanying these eruptions, which occurred within the past 7,000 years, cracks developed in the flanks of the volcano; other cracks opened beneath it, probably parallel to the Cascade Range, draining out an estimated 10 cubic miles of molten rock. Soon the top of the mountain collapsed into the void produced by these ejections and withdrawals. Thus was one of the highest points in Oregon changed into the great pit containing our country's deepest lake. With the aid of Williams' book, you can locate much of the geologic evidence upon which this theory rests.

By projecting the slopes of the mountain remnant upward— conforming to the slopes of similar volcanics—geologists have estimated that approximately 17 cubic miles of the upper part of Mount Mazama were destroyed by the collapse.

The growth of Wizard Island. After the destruction of the peak, volcanic activity within the calderas produced a small volcanic cone now known as Wizard Island. You can see only the top of this young mountain, the lowest part of which is more than 1,000 feet below the surface of the present lake. Soundings show that two other cones lie within the calderas, hidden from your eyes by the lake water.

The latest techniques revealed that the 1886 figure was off completely resounded the lake. Using a modern sonic depth soundings in the lake. Using crude wire-and-weight gear, by a mere 64 feet!

This group found the greatest depth to be 1,932 feet. The party calculated the greatest depth to be 1,996 feet.

Origin of the lake. The water of Crater Lake comes from rain and snow. The average annual precipitation is 69 inches, most of which falls as snow. As you can see, the lake has no significant inlet, and we know of no outlet, except seepage. The water level fluctuates only slightly from season to season. Evaporation and seepage are in a state of relative balance with precipitation. The annual water of Crater Lake comes from rain and snow. The average annual precipitation is 69 inches, most of which falls as snow. Evaporation and seepage are in a state of relative balance with precipitation. The annual

Depth of the lake. Only six lakes in the world are deeper than Crater Lake. In the Western Hemisphere, only Great Slave Lake in Canada is deeper—by about 83 feet. In 1886, a U.S. Geological Survey expedition, under the direction of Capt. Clarence E. Dutton, made a total of 94 soundings around every parking turnout can hardly escape your notice. They are often confused with the two species of chipmunks, which are smaller and shyer. It is easy to tell the difference: the ground squirrel has a stockier body, with a white strip between two dark stripes on each side of the back, and no stripes on the face; the two species of chipmunk have stripes on the face. We recommend that you enjoy these animals without handling them; they may bite, and they occasionally carry serious disease.

Golden-mantled ground squirrel.

Golden-mantled ground squirrels scamper around every parking turnout can hardly escape your notice. They are often confused with the two species of chipmunks, which are smaller and shyer. It is easy to tell the difference: the ground squirrel has a stockier body, with a white strip between two dark stripes on each side of the back, and no stripes on the face; the two species of chipmunk have stripes on the face. We recommend that you enjoy these animals without handling them; they may bite, and they occasionally carry serious disease.

The small, tree-inhabiting Douglas squirrel, or chickaree, may scold you from the safety of a tree limb. This squirrel, dark gray-brown above and pale orange to light gray below, is common. Another mammal that spends much time in trees, but is seldom seen there, is the porcupine. You are more likely to see it along the road at night. Look for the large, fat-bodied, yellow-bellied marmot in the rock slides. You may also hear the plaintive, bleating “yenk, yenk” of the tiny pika, or “rock rabbit,” issuing from crevices in the talus.

Golden-mantled ground squirrel.

The appealing golden-mantled ground squirrels scampering around every parking turnout can hardly escape your notice. They are often confused with the two species of chipmunks, which are smaller and shyer. It is easy to tell the difference: the ground squirrel has a stockier body, with a white strip between two dark stripes on each side of the back, and no stripes on the face; the two species of chipmunk have stripes on the face. We recommend that you enjoy these animals without handling them; they may bite, and they occasionally carry serious disease.

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Golden-mantled ground squirrel.
LIFE IN CRATER LAKE WATERS

Indians formerly living in the vicinity of Crater Lake believed that monstrous monsters dwelled in its mysterious blue depths. We know that this is not true, but Crater Lake does contain a surprising number of plants and animals. Much of this life came into the water naturally, and some was introduced by man. Thirty-seven fingering rainbow trout were planted by William G. Steel in 1888. Other plantings were made up to the early 1940's, when this practice was discontinued. Populations of sockeye salmon (landlocked form of sockeye salmon) are now maintained through natural reproduction.

You may see the harmless valley garter snake on shore or in the water. Among the rocks, look for crayfish, snails, caddis fly larvae, the Crater Lake newt, and the long-toed salamander. Freshwater shrimp are among the forms restricted to the water. Just as important are the microscopic animals and plants that you cannot see, for they supply food for the larger animals. You may see the glassy skeletal remains of diatoms which are deposited as a thick ooze on the floor of Fumarole Bay and elsewhere around Wizard Island. Larger forms of algae give a green color to the tiny pools on the lake floor. Here it thrives at depths of 60 to 425 feet. Only great transparency would permit sufficient light for the growth of moss at such depths; indeed, nowhere else in the world is moss found growing so far below the surface.

FORESTS AND WILDFLOWERS

As you will see, the distribution of plants is dependent on several factors, including climate and soil type. Generally, as you climb upward the air becomes cooler and storms bring heavier precipitation. These changing “climate zones” produce characteristic groupings of plants and animals, called life zones. Three such zones occur within the park and contain over 570 species of ferns and flowering plants.

TREES AND SHRUBS

As you drive through the Transition life zone on the lower western slopes of Mount Mazama, look for scattered stands of Douglas-fir. You may see the drier part of this zone, characterized by the ponderosa pine, at South Entrance. Associated with the ponderosa pine are white fir, sugar pine, and a few Douglas-fir. Broad-leaved trees, such as quaking aspen and black cottonwood, are present in moist locations. The snowbrush ceanothus and greenleaf manzanita extend upward into the Canadian life zone.

Nearly pure stands of lodgepole pine blanket large areas in the Canadian life zone. Elsewhere, you will find western white pine, Shasta red fir, subalpine fir, and mountain hemlock. Shrubs include the currants, whortleberry, pinemat manzanita, and bearberry honeysuckle. Photographers delight in the showy red berries of the Pacific red elder and the Pacific mountain-schub.

In the rim area around Crater Lake, Canadian life zone plants mingle with those of the Hudsonian life zone. Mountain hemlock and Shasta red fir are common to both zones. Whitebark pine, found springing near Rim Village, develop into nearly pure stands at higher elevations. You will find their storm-twisted forms near the highest point along the Cloudcap road.

Wildflowers

Colorful meadows of wildflowers are found around numerous springs which form the sources of streams on the outer slopes of the mountain. Look for wildflowers at these places and along the road between park headquarters and Rim Village and along Rim Drive. The flowers add to the pleasure of hiking the park trails. July and August are the best months to see them, but you can find them earlier in lower areas and on warmer exposures.

Blossoms of the spreading phlox, which carpet the barren pumice areas, may be so profuse as to fill the air with their delightful and delicate perfume. You may expect phlox and the western pasqueflower to appear shortly after the snow melts. Patches of painted-cup and sulfur ertogonium color the roadsides, followed later by common pearl everlasting and fireweed.

Plant labels will introduce you to the flowers as you stroll along the Garfield Peak and Discovery Point Trails. Castle Crest Wildflower Garden, near park headquarters, is one of the most attractive and ideal places for studying Crater Lake flora. There you can see orchids, violets, columbine, gladiolus, painted-cup, bleeding heart, monkshood, aster, and great masses of lupine and monkeyflower labeled for identification. Use the self-guiding trail booklet to learn about the associated trees and shrubs.

The flower exhibit in the visitor center in Rim Village will help you recognize the plants that you see along the park roads and trails, and there are several informative publications about the park's wildflowers. The booklet Along Crater Lake Roads: calling attention to outstanding wildflower locations. Another booklet, 101 Wildflowers of Crater Lake National Park, is useful for identifying the commonly seen flowers.

THE CHANGING SEASONS

It has been said that Crater Lake has but two seasons—winter and summer. This is not exactly true, for spring is the season when deep winter snows melt, and summer, during July and August, is like the spring of lower altitudes. Autumn heralds the coming winter; yet it provides beauty of earth and sky. To appreciate it fully, you must visit Crater Lake at all seasons.

Winter. Snow covers the park for nearly 8 months of the year. On your winter drive to Crater Lake, you pass between high snowbanks. At Rim Village, you may enter the coffee shop through a “snow tunnel.” Buildings and campgrounds lose their identity and become as one with the white wilderness. Trees bend gracefully under heavy snow burden; the dazzling white blanket contrasts with the blue sky; and there is an atmosphere of serenity and sparkling cleanliness.

Spring brings the melting of snow, northward flights of ducks and geese, bears emerging from their winter dens, the arrival of summer birds and deer working their way up from their low winter ranges. You will be greeted by the golden-mantled ground squirrel and the Clark's nutcracker. Park crews try to have the roads clear of snow so that the North Entrance road can be open by mid-June, the Rim Drive by early July. There will be bare ground in places; but you will still travel between vertical snowbanks where bulldozers and rotary plows were used to carve out a passage.

Summer, barely 2 months long, is full of activity: visitors trying to see this masterpiece of nature in too short a time, wildlife caring for their young, and streams bounding down the steep slopes; yet the atmosphere is one of peace and quiet. The days are usually warm and nights are cool, but occasionally storms may lend a feel of winter. Summer is the time when all services are available and the park may be most easily seen.

Autumn weather is unpredictable, with storms punctuating the crisp air and bright blue skies. Rim Drive and the North Entrance road remain open until the first heavy snow. Especially during October, autumn colors of dogwood, maple, willow, and aspen make the drive to the park from the surrounding lowland a delightful experience.
Mount Scott's hollowed flanks tell of past glaciers.
Tranquility, in a setting formed by violent eruption.
Oregon State Highway Commission photo.

Wild animals. You may see bear, deer, and other animals. All are wild; some are dangerous. Watch them from a distance. Park regulations prohibit feeding deer or bear or molesting any animal. These regulations are enforced for your own safety.

Fishing. You may fish in park streams from June 15 to September 10, and in Crater Lake when the trail is open. No fishing license is required. The limit is 10 fish per day. You may not use or possess bait fish.

Preserving natural features. Other visitors will appreciate your consideration in leaving clean trails and roadsides. Trash containers are provided along roads. Every natural thing—flowers, trees, rocks, wildlife—is to be left undisturbed for others to enjoy. Take from here only pictures and pleasant memories; leave only traces of your footsteps.

ADMINISTRATION

Crater Lake National Park is administered by the National Park Service, U.S. Department of the Interior.

The National Park System, of which this park is a unit, is dedicated to conserving the scenic, scientific, and historic heritage of the United States for the benefit and enjoyment of its people.

A superintendent is in immediate charge of the park; his offices are in the administrative center, 3 miles south of Rim Village. His address is Crater Lake National Park, Crater Lake, Ore., 97604.

Inquiries concerning accommodations within, and transportation to, the park should be addressed to Crater Lake Lodge, Inc., Crater Lake, Ore., 97604.

Park rangers are the uniformed protective force of the park. They are responsible for safeguarding its resources for your enjoyment and that of future generations, and they enforce park rules and regulations for your safety. If you need information or direction, or are in any difficulty, see a park ranger. You will find him always ready to be of help.

Park naturalists, also uniformed, are the interpretive staff of the park. They conduct research programs, prepare publications, present evening programs, and conduct trips and engage in other activities that help you to enjoy and understand the park.

The Federal Recreational Area Permit will admit the driver and passengers of a private automobile, or the purchaser regardless of mode of travel. Individual daily and seasonal permits can also be purchased.

THE DEPARTMENT OF THE INTERIOR—the Nation's principal natural resource agency—has a special obligation to assure that our expendable resources are conserved, that renewable resources are managed to produce optimum benefits, and that all resources contribute to the progress and prosperity of the United States, now and in the future.

Cover photograph: Courtesy of Oregon State Highway Commission.