

The Everlasting Wilderness

TEN men huddled about a flickering camp fire on the banks of the Firehole River in Colter's Hell high in the Rocky Mountains.

"A quarter section opposite the Great Falls would make a pile o' money for somebody," allowed one of the men.

"I'd rather have a quarter section in the upper geyser basin," said another.

The argument which followed was interrupted by Judge Cornelius Hedges, who declared vehemently:

"There ought to be no private ownership of any portion of this wonderful wilderness. The whole of it ought to be set aside as a great national park."

This suggestion found favor, after some discussion, with all members of the party.

Thus was born the idea of the national parks, perpetual wildernesses, the last remnants of Nature's handiwork on this teeming earth. They are to be preserved forever in their natural state for the benefit and enjoyment of the people, to use the exact words of the act of Congress of 1872, creating the Yellowstone National Park. This act was passed two years after the exploration of Colter's Hell by the Washburn-Langford-Doane party.

Keeping the Wilderness Wild

FIFTY-EIGHT years have elapsed since that group of men camped on the Firehole River. Three generations have made the Yellowstone and its wonders everyday bywords. Two million Americans have visited the Yellowstone since that time and marveled at the actions of the geysers, the boiling paint pots, or stood speechless at the riot of colors in Yellowstone Canyon.

Yet the Yellowstone National Park remains today, after all these years and for all the travel, essentially a wilderness; nine-tenths of it is trackless and primeval as it was when Truman Everts, the lost member of the Washburn party, wandered hopelessly through the virgin forest, to be found at last as if by a miracle. Nine-tenths of Yellowstone is still—and we hope it always will be—an everlasting wilderness.

By Horace M. Albright

Superintendent Yellowstone National Park

IN COLLABORATION WITH FRANK J. TAYLOR

and trail building program in the national parks. The newspapers gave considerable publicity to this bill without explaining the purpose for which the money was to be used. As a result the United States Department of the Interior and its National Park Service have received frequent letters from anxious inquirers who want to know if we propose to checkerboard the last wildernesses with highways.

"Are the last lingering remnants of unspoiled Nature to be sacrificed on the altar of progress?" one of these lovers of Nature wrote. "Are there to be left no spots on this continent where the human who is tired of civilization and its noises can go for a few days or a few weeks without hearing the honking of motors? We have swallowed up our frontier at a prodigious rate. Let us not destroy the few remaining bits of wilderness in the national parks by building paved highways

In 1924, Congress passed and the President signed a bill authorizing a \$7,500,000 road



through every one of them."

This is a sentiment which the National Park Service indorses without a single reservation. Of course the parks should remain wildernesses. It is true that they are the only primeval areas protected by law from the ravages of civilization. They must be saved as such. But no \$7,500,000 road-building program is going to threaten them; nor yet a \$75,000,000 program. Anyone familiar with the cost and the problem of

road building will know that \$7,500,000 worth of road work will not reach far into the mountains. There are stretches that would cost at least \$1,000,000 a mile to construct, while \$100,000 a mile is not expensive construction where granite and rock must be blasted to make way for roads.

As a matter of fact, the present road-building program includes only a few miles of new road in many of the national parks, except where realignments are necessary to eliminate grades or dangers. In certain parks where there have been only a few miles of highway, some new projects are under way. Nearly the entire sum voted by Congress so far is needed to improve existing roads until they are adequate for present-day travel. Many of these roads were built before the coming of the automobile.

Indeed, some of them are merely improved horseback trails, inherited by the National Park Service, in the case of several of the parks, which has never had hitherto sufficient funds to improve them.

The Advantage of Inaccessibility

SINCE every American shares a proprietary interest in these everlasting wildernesses and since many, if not all, Americans are deeply concerned in them, a brief explanation of the policy of the National Park Service may be interesting. There are now nineteen national parks, each different from the others, each created by special act of Congress to preserve for present and future generations some particularly noteworthy natural wonder or group of wonders. Practically all the parks are located high in the mountains. This fact, if no other, would assure their preservation in their natural state, for the reason that at least 80 per cent of the national parks area is fortified behind impregnable fortresses of snow and ice for from five to nine months of each year. Only a small portion of the parks area is accessible for longer periods than three summer and two autumn months.

The national-park system is a distinctly American institution. Prior to the establishment of Yellowstone National Park in 1872, no such public park had ever been created by any government. Up to that time parks had always been regarded as municipal institutions, purely local in character. The creation of the Yellowstone reserve was notable

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A Typical Road to a National Park Before Being Improved by the Park Service. Above—Mr. Albright



The Main Highway to Rainier National Park, Accessible to Travelers the Year Around

THE EVERLASTING WILDERNESS

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for other reasons. It was the first act of the Federal Government in the conservation of national resources on a large scale. It was the forerunner, therefore, not only of the present chain of national parks but of the national forests as well. It was the first step by the National Government for the preservation of wild life, as well as for the protection of native landscape. This very first American act setting aside a large area for public use was on a high plane, setting a fine precedent for the other national parks which followed.

It was clearly the intent of Congress in establishing the national parks to withdraw them permanently from commercial development or other exploitation. In the act creating the National Park Service it was declared that the national parks and the national monuments—which are, after all, but lesser national parks—are to be preserved forever in their natural state. Putting the policy enunciated by Congress in other words, it was the intention to preserve for coming generations, as well as for the people of our own times, certain sections of our original wilderness areas, in order that these bits of natural America may always be a source of interest, inspiration and pleasure to the people.

Back Country

The laws creating the parks and the National Park Service did not stop with authorizing protection and maintenance of these reservations. They also authorized that the parks be made accessible to the people. Unless they are accessible, the wonders of the parks cannot be seen and enjoyed. At the present time most of the parks are accessible in part by roads, but nine-tenths of the parks area can still be reached only by trails. It should be added that many of these trails are not in existence by act of Congress, which must appropriate every dollar spent each year for construction in the parks, but by act of Providence, aided and abetted by the hoofs of the deer, the elk, the buffalo and other wild animals with a migratory bent found in the parks.

The vocal element of the people interested in the national parks seems to fall into two groups: Those who want no roads into the parks and who would keep them unbroken wildernesses reached only by trails, and, on the other hand, those who are spokesmen for automobile clubs, chambers of commerce and other development organizations, whose appetites for road building are never appeased. The National Park Service has attempted to steer a course between these two extremes and has sought to carry out a policy which would make the main attractions of the parks accessible to motorists: reserving the more remote back country, so-called, for the more adventurous souls who enjoy roughing it over trails, on foot or on horseback.

The back country, I may add, includes 90 per cent of the Yellowstone and the Yosemite, and correspondingly large areas in the other parks.

Prior to 1924 but \$3,500,000 had been appropriated for road building during the first half century of national parks development, and half of this sum had been used over a long period of years for construction of roads in the Yellowstone. Practically no automobile roads had been built. Hundreds of thousands of visitors drove into the parks over old wagon roads, many of which were constructed as toll roads and operated as such for decades, until they were bequeathed finally to the National Park Service, which was too poor to maintain them properly. Many of these routes, notably those into Yosemite Valley and in Mount Rainier Park, were so narrow and steep that they were operated under strict one-way controls. The Big Oak Flat Road,

tracks of freight wagons and horse-drawn stages across the desert and over the hills. Congress found the road conditions in the other parks equally deplorable.

In many instances the states had built excellent modern roads up to the park boundaries. The contrast between these highways and the obsolete roads within the parks was such that it reflected badly upon the Federal Government's interest in the national parks which it had undertaken to save for the enjoyment of the people. More than \$50,000,000 had been spent up to that time in building roads through the national forests which surround the majority of the national parks, and here again the contrast reflected upon the national parks, which had become the greatest Meccas of travel in the United States.

It was this condition which led Congress, in 1924, to authorize the expenditure of \$2,500,000 a year for national parks road

deposited in side canyons where it will not destroy trees or other scenic features. Rock walls must be built to hold fills so that cliffs and mountainsides will not be scarred. Bridges must harmonize with surroundings. On any national parks road-building job the landscape engineer is the final authority, and his recommendations may involve long and painstaking planning and more than ordinary construction costs.

Of the 138 miles of road in existence in Yosemite National Park in 1924, ninety-six miles had to be reconstructed and twenty-eight miles had to be paved at once to eliminate the dust nuisance in the valley, leaving but fourteen miles of road which did not require immediate attention. Even this small section had to be included in the eventual reconstruction and paving plans. The rebuilding of the Yosemite road system is a ten-year job and will cost \$11,000,000. When the entire program is completed the park will have no more miles of roads in it than it possessed when the program was adopted in 1924, except for a few miles constructed by the city of San Francisco under terms of the act granting the city the right to erect a dam for storing water in Hetch Hetchy Canyon.

Concentration

It is evident, therefore, that no new country in the Yosemite can be opened to the automobile, at least not with appropriations at hand. We would not recommend it, even if the money were available, for the reason that we believe that construction of additional roads would mar exquisite glacially carved cliffs or destroy the natural settings of noble waterfalls.

The roads that serve Yosemite National Park reach but a small area—not more than 10 per cent of the park's 1125 square miles. The great concentration of travel to Yosemite is in Yosemite Valley, comprising only about ten square miles, and to the Mariposa Grove of Big Trees, to Glacier Point, and that is all, with the exception of the motorists who make the trip over Tioga Pass, crossing the Sierra Nevada at above the 9000-foot summertime. The great north half of the park is visited each year by but a mere handful of trail riders. The south half of the park is more easily accessible by trail. When it is realized that Yosemite, with only 138 miles of road in it, is almost as large as the state of Rhode Island, it will be seen at once that most of the park is destined to remain everlasting wilderness.

Today 100,000 machines a year make the trip into Yosemite and out, carrying four times that many people, and in spite of the apprehensions of the early authorities for the safety of the occupants, there have been but two fatal motor accidents in the park. It has been pointed out that the

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A CONFERENCE OF SUPERINTENDENTS OF NATIONAL PARKS

Top—Left to right: W. R. Tillotson, superintendent Grand Canyon; J. W. Emmert, engineer Yosemite; F. A. Kittredge, chief engineer National Park Service; Thomas Bolles, custodian Carlsbad Cave; Harry Karstens, superintendent Mount McKinley National Park; A. B. Cammerer, assistant director National Park Service; J. L. Nusbaum, superintendent Mesa Verde National Park; Roger Toll, superintendent Rocky Mountain Park; Horace M. Albright, superintendent Yellowstone Park and of National Park Service; Joseph Bolten, superintendent

Hot Springs; E. P. Leavitt, acting superintendent Yosemite; F. L. Connor, chief clerk Yosemite; A. F. Hall, chief naturalist National Park Service. Below—Left to right: T. C. Vint, landscape engineer National Park Service; Joseph Joffe, assistant superintendent Yellowstone; C. G. Thomson, superintendent Crater Lake National Park; J. R. Eakin, superintendent Glacier National Park; M. F. Daum, assistant superintendent Yellowstone; E. F. Scoyen, superintendent Zion Park.

one of the main arteries into Yosemite, is still operated under this antiquated arrangement.

When Congress took up the study of the national parks roads seriously in 1924, it was found that there were but 1060 miles of road in the entire park system. Of this, 350 miles were in the Yellowstone. In Yosemite Park there were 138 miles of old wagon road, all but thirty miles of which were built by the old toll-road companies in the 70's and the 80's. In Sequoia Park there were less than fifty miles of road, all of it constructed in the early days by the settlers in the San Joaquin Valley foothills. Grand Canyon boasted but forty miles of road, only eight of which were constructed by competent engineers, the rest being the

construction—an appropriation recently increased to \$5,000,000 a year. Practically all this money was needed for reconstruction of the old roads to bring them up to the standard of the new approach roads already built by the states. Road construction in the national parks is expensive everywhere, because of the difficult terrain, the necessity of cutting through solid rock, and due also to the short working season, requiring costly reorganization of working crews from year to year. All the major national parks are located in the wildest and most tumbled mountains of the West. Then there is the expense of preserving the scenic features. Rock that could be dumped ordinarily over the side of the cliff must be end-hauled in the parks and

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antiquated roads have had something to do with this remarkable record—that motorists must drive slowly and pay attention to the road, or they cannot get to Yosemite at all. There may be something in that. It will be interesting to see if the record can be maintained, now that the roads are being improved, and in some instances paved. We are trying to eliminate dangerous turns and grades to make the roads safer. There is the possibility that they may become speedier and less safe.

Yellowstone National Park, the biggest unit in the park system, contains 3348 square miles and is almost as large as Delaware and Rhode Island combined. It has 302 miles of roads within its boundaries and originally built and still maintains fifty-eight miles of the east and south approach roads in Wyoming.

There have been some short sections of new roads constructed in this park in order to reduce grades and improve alignment, but in other respects there has been no change in the Yellowstone road system during the past twenty years. Approximately one-half of the system is included in what is known as the Grand Loop Road, which connects the principal features of the park: The Mammoth Hot Springs, the Norris, Lower and Upper—Old Faithful—Geyser Basins, Lake Yellowstone and the Grand Canyon of the Yellowstone.

Seventy miles of the park system connect this Grand Loop to the four main entrances of the park. The other roads are side-trip roads about the canyon, the geyser basins, and to the Cooke mining district outside the park. Another twenty miles connect the Gallatin Gateway with the western entrance. So far road building under our new program has been limited to improvement of the Grand Loop, the Cody, or eastern, approach to the Loop and the Gallatin Gateway road in the park. More than half the Grand Loop must be more or less rebuilt in order to reduce grades, widen the highway to full two-way-travel width, and to eliminate sharp and dangerous curves and put on a dust-proof surface under the California oil-mix paving system. The Cody road requires the expenditure of \$1,000,000 to bring it up to modern standards and already this project is well under way.

There are about 1000 miles of trails in Yellowstone, and the country they traverse should be considered here. The roads reach not more than 350 square miles of the 3348 comprising the park, or only a little more than 10 per cent of the total area of the park. This means that in the Yellowstone there are approximately 3000 square miles of wilderness, accessible only by trail, and when we realize that a large part of the trail system was not built by man but by buffalo and elk, the wilderness character of this country becomes more apparent.

In the Two Ocean Country

It is possible for one to take a pack outfit at Camp Roosevelt in Yellowstone Park and start on the trail over Specimen Ridge to the buffalo range, thence to the Hoodoo country at the head of the Lamar, thence down Pelican Creek to Lake Yellowstone, thence around the lake to the head of the Yellowstone River, thence across Big Game Ridge, with its great views of the Tetons, thence into the Bechler River country and up the Bechler to Old Faithful, and only cross roads twice in this trip, which requires a month. The road crossings are in dense forests and a hundred yards on either side of the highway there is nothing to indicate that an automobile may be within a hundred miles of the pack train. Wild life abounds on these trails, fishing is as good as can be found anywhere, and the scenery is lovely. The thought of a road in this wild region is abhorrent to everybody who knows and loves that country, and it does not seem necessary even to think of any more roads, because already the park has more roads than the average motorist wants to use, and certainly all of the main features

have been made easily and comfortably accessible.

Some of us even think that airplanes should avoid this wild Yellowstone country. It was thrilling to know that Lindbergh was winging his way over the Absarokas and across the park last September, and everybody appreciated his visiting the park, but it ought not to be on regular airplane routes.

There are bills pending in Congress providing for the revision of the boundaries of Yellowstone National Park and for the inclusion in the park of the famous Teton Mountains of the Jackson Hole country. These measures would add to the park the rugged mountains at the headwaters of the Lamar River and the extraordinary scenic region far back where the Absaroka Range joins the Continental Divide, and where the Yellowstone River rises at the feet of everlasting glaciers high on the slopes of Younts Peak. This is the Two Ocean Country, where trout pass from one ocean to the other, the Bridger Lake region, where moose abound, the Thorofare, with its far-flung tributaries and vast forests and big mountains and dizzy passes. No road should ever penetrate this section. It is the land of game trails, of pack outfits, of dude-ranch parties, of mountaineers, and with 500 square miles of the existing park, it comprises a wilderness unparalleled anywhere. The pending bills in Congress provide that no roads shall be constructed in this region when added to the park.

Open at All Times to All Comers

Yosemite is our most frequently visited national park. About 500,000 people visit this wonderland annually now, yet there are no more miles of road in the park than when it was visited by but 50,000 annually. The road-building program has been touched upon already. The park has 138 miles of highways, of which almost 100 miles were constructed by toll-road companies in the early days. The Yosemite Valley is of course the most distinguished feature of the park. This valley, only about ten square miles in area, lies in the midst of a high mountain park area of 1125 square miles. The ice-carved domes, spires, towers, arches and palisades of this incomparable valley are known the world over. It was a splendid thing for the people of our country that the pioneers, by the expenditure of large sums of money and almost superhuman effort, made the Yosemite Valley accessible to horse-drawn vehicles, so that the old, the weak and the very young might see this marvelously beautiful place. Today the valley is made accessible the year round by splendid paved highways, and the government roads in the valley itself are paved and are kept open through the winter as well as summer. Fine hotel and lodge facilities are available and there are accommodations for every purse. All this is as it should be. Yosemite Valley, like the geysers and canyon of the Yellowstone, should be open to all.

Glacier Point, above the rim of Yosemite Valley, is also accessible by road, and the spectacle of the valley from Overhanging Rock, 3200 feet above its floor, will never be denied to anyone. Likewise the Tioga Road cuts across the park from the heavily forested lands of the west boundary to the alpine summit of Tioga Pass near timber line, and so the rockbound lakes and glacial cirques of the high country are open also to the motorist and his friends who do not like to ride horseback or hike the trails, or for good reasons cannot take the slower, more intimate way of vacationing in the mountains.

What is left in the Yosemite for the person who seeks to avoid the noise and confusion of civilized methods of transportation? The answer is that nearly 90 per cent of Yosemite National Park can be reached only by trails. There are more than 600 miles of trails, and among them are some of the most spectacular and interesting trails of the world. First, there are the trails up the walls of the Yosemite Valley leading to

the summit of Yosemite Falls, to Half Dome, to Glacier Point, to Clouds' Rest. Fine trails lead to the high Sierra country and in summer a chain of hikers' camps provides hospitable service to travelers along many of these mountain paths. A pack outfit or at least a burro is necessary, certainly advisable, to help one in getting into the more remote regions. The Tuolumne Canyon, which leads one from the region of Tioga Pass and Mount Lyell to the Hetch Hetchy, is a remarkable gorge full of waterfalls and stupendous cliffs, and beyond the Tuolumne northward to the park line is a rugged country, 300 square miles in extent, far from any highway. Jack Main Canyon, Benson Lake, Tiltill Valley, Pate Valley—these are all names familiar only to the mountaineering-club people, the rangers and the other classes of visiting folks who love the remote places of the national parks. Yosemite's back country is a vast region of supreme beauty and one can travel for days on its trails without seeing a soul.

What of the Grand Canyon National Park in Arizona? When this park was established there was a system of old wagon roads built many years ago by prospectors, cattlemen and the early providers of stage and hotel service at the canyon. On the north rim there were a few miles of road not passable to automobiles. About eighty-two miles of road could be used, of which eight miles was the total length of modern improved highway, and this was built by the railroad between El Tovar, the famous hostelry on the south rim, and Hermit Rest, westward eight miles, and the point from which the Hermit Trail descends into the canyon. The Federal Government had not spent a dollar on Grand Canyon roads at that time. The present road program contemplates the improvement of the existing roads and the construction of approximately seventy miles of new roads, but when this work is completed only a small portion of the north and south rims of the canyon will be accessible to automobiles. There will remain upward of 100 miles of rim that can be reached only by trail. There will be roads eastward from El Tovar on the south rim to Grand View, Desert View, and on to the reservation of the Western Navahoes, and westward to Hermit Rest and Havasu Canyon. On the north rim there will be newly constructed roads to Cape Royal, Point Imperial and Point Sublime, running east and west from the new Grand Canyon Lodge on Bright Angel Point.

The Grand Canyon in Miniature

No further plans for the park contemplate a road into the Grand Canyon itself, where flows the Colorado River, nearly one mile below the south rim and more than one mile beneath the north rim. It is doubtful whether a road could be built into the canyon on satisfactory standards, but the prohibitive cost is something that the Federal Treasury could not be called upon to bear within the lives of even the young folks of today. A bridge across the Colorado at Lees Ferry not far east of the park will serve to bring more and more people from rim to rim and will give a glimpse of the canyon country from below the rims, but it is safe to predict that within the park there will never be a highway below the rims.

There is one new project that merits mention, and that is the proposal to build a road into Havasu Canyon, formerly known as Cataract Canyon, which lies some fifty miles west of El Tovar. Havasu Canyon is a gorge very much smaller than the Grand Canyon, but is nevertheless a deep and exceedingly spectacular tributary to the main canyon. Nowhere can one descend below the rim and get impressions so similar to the views within the Grand Canyon itself as in Havasu Canyon.

Glacier National Park in Montana is known as the saddle-horse park. More than 800 saddle horses are in use in Glacier

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Park during the height of the season. Thousands of people go to Glacier every summer because they want to get away from roads. Though there are about 200 miles of roads in the Glacier Park program, of which only about ten miles remain to be built, like the highways of most of the other parks, much of the system has to be rebuilt on modern standards. On the east side of the park the original roads were built by the Great Northern Railroad, and with the exception of some short spurs, these sections have been rebuilt with state and Federal cooperation. Within a few months it will be possible to go from Glacier Park Station on the railroad to the Canadian line on a new crushed-rock-surfaced road. However, on the west side of the park, along the North Fork of the Flathead River, roads built many years ago by homesteaders and other pioneers are still in wretched condition.

Only one new road project was ever planned by the National Park Service. This was the transmountain highway which is to traverse Glacier Park from east to west via Logan Pass. At the present time, in order to get across the Rocky Mountains in the vicinity of the park, automobiles must be shipped on the train. It is necessary to go north into Canada to get over a pass by motor. It seemed necessary to build one through highway and the route selected was splendid from every standpoint. It will be one of the scenic highways of the world. It will have cost \$2,000,000 when completed.

In the northern part of Colorado, Rocky Mountain National Park sits astride the Continental Divide just as Glacier Park does in the far north. The finest scenic regions of the Colorado Rockies are preserved in the park. Formed by the forces of Nature in a manner totally different from the building of Glacier Park, it presents to administrators similar problems of development. The mountains of the park are of granite, the elevation above the sea is very high, the country is rugged in the extreme. There are few valleys which would provide routes for roads. The National Park Service could not build roads into many sections of this great park if its policies called for extensive highway construction and funds were available to build them.

A Road Above the Clouds

On the eastern side of the mountains lie several beautiful open park areas, many of them justly famous—Estes Park, Moraine Park, Horseshoe Park and several others. These are all accessible by means of good roads originally built by the early settlers and much improved by the National Park Service. On the west side there are Grand Lake, largest lake in Colorado, and the valley of the North Fork of the Colorado, which heads far up into the Never Summer Range and into the peaks of the backbone of the park. This side of the park has good roads, and a fine new highway over Berthoud Pass, built by the state with Federal-aid funds, affords easy access to it from Denver and the east and south. A few years ago, under an agreement with the United States, the state of Colorado finished a road from Grand Lake to Estes Park, connecting the two sides of the park via Milner Pass. This is the Fall River Road, and is one of the highest-altitude roads in the world. It crosses the Rockies at 11,797 feet. It is a thrilling highway, and one that is well worth while. It gives everybody an opportunity to see the top of the Rockies and the tremendous power of the elements in the high places where the storm king holds sway nine months in the year. Such a road is necessary in Rocky Mountain National Park, but only one such road need ever be built.

The future road-building program for this park provides for improvement of the alignment, grade and curvature of this transmountain highway, and to carry out this work it will be necessary to abandon part of the present road. When completed,

the new Fall River Road will be one of the most-talked-of motor routes of America. Nothing else is contemplated in this park in the way of new highways except some stub roads into three or four rockbound valleys on the east side of the range, where glimpses of the high country beyond can be obtained by those who cannot venture there and where bases for sturdier climbers can be provided. Bear Lake, Fern Lake and the east end of Wild Basin will some day have good roads, and they will contribute pleasure to thousands of real mountain-loving people, while the casual tourist, racing through the country, will pass quickly over the Continental Divide on the Fall River Road and hurry on to other scenes. When these roads are built the park, with nearly 400 square miles of area, will be the proud possessor of just 71.2 miles of road, or about twenty-five miles more than when the park was dedicated in 1915.

For years past Mount Rainier Park has had only twenty-one miles of safe, usable highway—the road up the Nisqually River past Longmire Station to Paradise Valley. Short alternate routes near Rickseker Point and Narada Falls added three miles to this total. All travel to charming Paradise Valley has had to come and go over the same road, and for years part of the road was controlled so as to admit traffic in one direction only, cars going up on the hour and down on the half hour, with strict checking by telephone. The road has now been widened and is being surfaced with crushed rock and oil. Two short roads in the Carbon and White rivers sections of the park added fifteen miles to the system. These roads will soon be abandoned.

Roads to Every Corner

The engineers of the U. S. Bureau of Public Roads and the National Park Service, including those of the Landscape Department, have worked out a road system for Mount Rainier Park that contemplates connecting the several corners of the park. The West Side project will join the Nisqually Road to a state highway near Fairfax on the Carbon River, the Stevens Canyon Road will ultimately connect with the state highway running eastward through Cayuse Pass to the Yakima country and Eastern Washington, and this in turn will connect with the Yakima Park road in the White River section of the park, which will replace the old mining road to Glacier Basin. This sounds like a big program, and it is as ambitious as any park-road-construction plan we have, but after all it will make only fourteen square miles of the 325 square miles in the park available for intensive development.

The reason for this is that the character of the country is such that, even though the roads will traverse many ridges and deep valleys, motorists must pass on to the relatively level alpine park lands for camping and recreation. Fourteen square miles seems to be about all of the park terrain along all proposed and existing roads that can be used for housing, feeding and camping accommodations.

The most beautiful park lands are destined to be left in isolation far away from the roads. Let us trace the wilderness areas beginning at Paradise Valley, which is now the best-known part of Rainier Park. West and north from Paradise to Sunset Park the mountain, forest and glacier areas will be touched only by trails. These include Cushman Crest, Van Trump Park, Kautz Creek Basin, Indian Henry and Tum Tum Peak regions, the Tahoma Glacier system, Emerald Ridge, St. Andrews Park, Klapatche Park, and all of the upper part of Sunset Park, including the Puyallup and South Mowich Glaciers and the North Mowich Glacier system.

There will be no road across the northern part of the park, nor in the northwest corner. Therefore the wilderness region will include the Mother Mountain Range, Eunice Lake Basin, the Carbon Valley, the Elysian Fields, Moraine Park, Mystic Lake

Park, Sluisin Mountain, the Chenuis Range, the Winthrop Branch of the White, Berkeley Park, White River Park, and a vast area of unnamed peaks and valleys. This northern area alone covers more than 100 square miles, and not a foot of it will be developed. Southward from the White River and Yakima Park road is another vast region marked for complete protection from development of any kind. This embraces Goat Island Mountain, Summerland, the Cowlitz Chimneys, the Owyhigh Lakes Basin, the great valley of the Ohanepesch, Cowlitz Park and Stevens Ridge, and the entire Tatoosh Range. About 90 per cent of the park will remain an untouched wilderness.

Zion National Park presents one of our most spectacular road-building undertakings. To make this colorful canyon accessible it was necessary to build eight miles of road from the floor of Zion Canyon eastward to connect with the highway to Bryce Canyon and Grand Canyon Parks, but this new highway will lead eastward through a small side gorge and will not in any way affect the landscape of the walls of the main canyon, which so much resembles the Yosemite Valley. The cost of eight miles of road was \$1,700,000, which in itself is sufficient answer why we cannot build many roads into the mountains. More than a mile of this road is a tunnel blasted in the solid rock of the cliff, with windows and galleries overlooking the surrounding cliffs—a most spectacular route. This road building brings the total length of roads in Zion Park to fifteen miles, which is all the park will have. The main canyon is accessible to everybody by a road five miles in length which ends at the Temple of Sinawava, from which a trail a mile in length leads to the Narrows, where the walls of the canyon come so closely together that one must ride in the river if he would ascend horseback up the gorge to the higher country. We plan to build trails to the east and west rims of the canyon, and the only way these vantage points may be reached will be on foot or on horseback.

From Tree to Tree

Sequoia and General Grant National parks in California are known as the big-tree parks, because within their forests are the largest and oldest trees in the world. The Giant Forest in Sequoia Park and the General Grant Grove in the smaller park are both reached by excellent highways, and good camp grounds are available on the outskirts of the sequoia forests as well as lodge facilities for the motorists who do not bring their own supplies and equipment. The highway program for these parks provides for a connection between them to be known as the Generals' Highway, because it will join the General Sherman Tree in the Giant Forest to the General Grant Tree in the other park some thirty miles distant.

There will doubtless be a highway into the Kings River Canyon, destined to be in a national-park status before long; but the high country of the Kings and Kern and Kaweah rivers, often called the Alps of America, will be wilderness areas for ages to come. Here are peaks more than 13,000 feet in altitude, including Mount Whitney, 14,501 feet, and highest in the United States, outside of Alaska.

This, then, is our great heritage of primeval America. Fortunately it is that Americans have awakened to the importance of their wilderness areas before they were entirely destroyed, as has happened in practically all civilized countries. The American wilderness is one that can be enjoyed by all during the summer months, yet one that defies the ingenuity of mankind much of the year when it is guarded by the legions of winter. I look upon this as an act of Providence which forbids man from binding our most gigantic mountains with ribbons of pavement and which gives the wilderness the better half of the year to reclaim her own. It holds new life for those with adventure enough in their souls to look behind the highways.