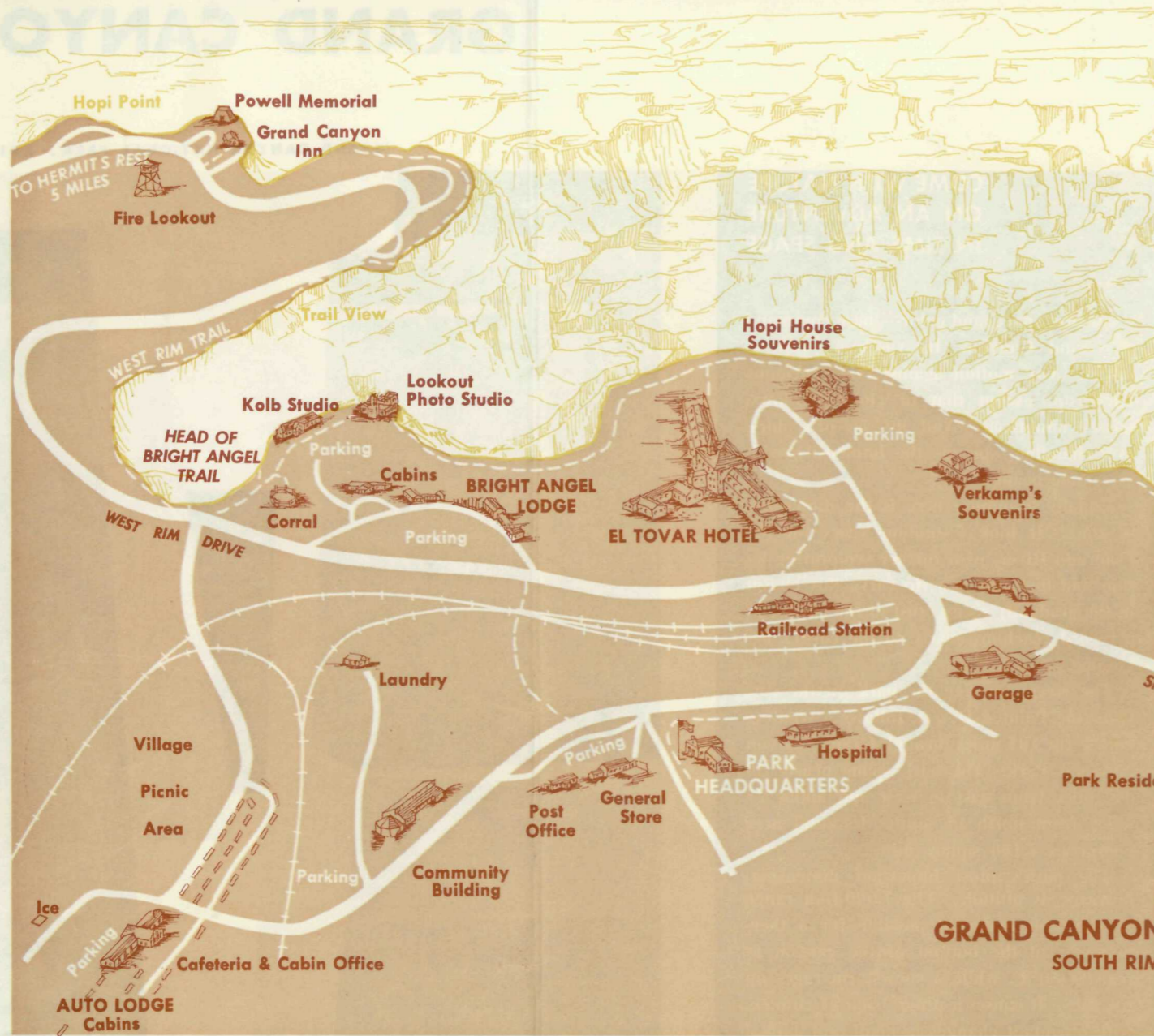


# GRAND CANYON

GRAND CANYON NATIONAL PARK . ARIZONA







PART I

guide to the south rim

The South Rim of Grand Canyon is on a flat, pine-forested plateau. About 7,000 feet above sea level, it looks across to the higher North Rim, which geologically is part of the same plateau. Relatively mild winters and greater accessibility make the South Rim the more visited side. From

Grand Canyon Village, center of South Rim development, roads stretch east and west along the rim.

Trails provide a more intimate look at the canyon. Kaibab Trail, starting from Yaki Point, and Bright Angel Trail, starting near Bright Angel Lodge, descend to the river.

Getting to Know the South Rim

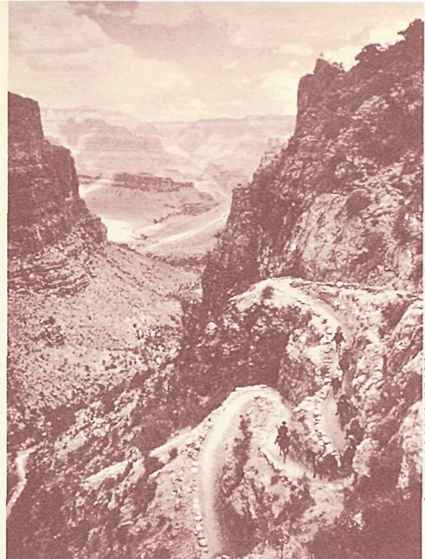
The West Rim Drive leads 8 miles from the village to Hermit's Rest, passing excellent lookouts on the way. You will find it a good trip any time of day, but it is particularly enjoyable at dusk, for the sunsets from Hopi Point

are famous. Often, far below you to the west, the brilliant afterglow reflects from the surface of the Colorado River.

The East Rim Drive leads from the village to Desert View. You may want to visit the Watchtower, which perches on the rim there. On the way, stop at

Lipan Point, which many people think offers the most exciting view of all. The river winds far below you, and, on the southern horizon, behind you, the San Francisco Peaks reach high into the sky. The visitor center, Yavapai Museum, and Tusayan Museum are also on this drive.





A mule party approaches Indian Gardens, halfway down the Bright Angel Trail.

**Bus tours** make the West Rim Drive in the morning, the East Rim Drive in the afternoon.

**The West Rim Trail** follows the edge of the canyon for a mile from the hotel to Maricopa Point. It is an easy walk.

**Canyon Rim Nature Trail**, 1½ miles long, leads from the hotel to the visitor center and Yavapai Museum. Part of this trail, from the visitor center to the hotel, is self-guiding. It is best to arrange your arrival at Yavapai Museum in time for an interpretive talk.

**Horseback trips**, available only in summer, take you through the pine forests that cover the South Rim.

### Exploring the Canyon

**Going by Muleback** is one way to see the river and view the canyon from below. You should reserve your mule well before your arrival at the park. Water is provided. Persons over 200 pounds and children under 12 cannot take the mule trips.

**The Plateau Point Trip** takes you onto the Tonto Plateau, about 3,200 feet below the rim. From the point of the plateau, you view the river in the depths of the inner canyon. Trip takes 7 hours.

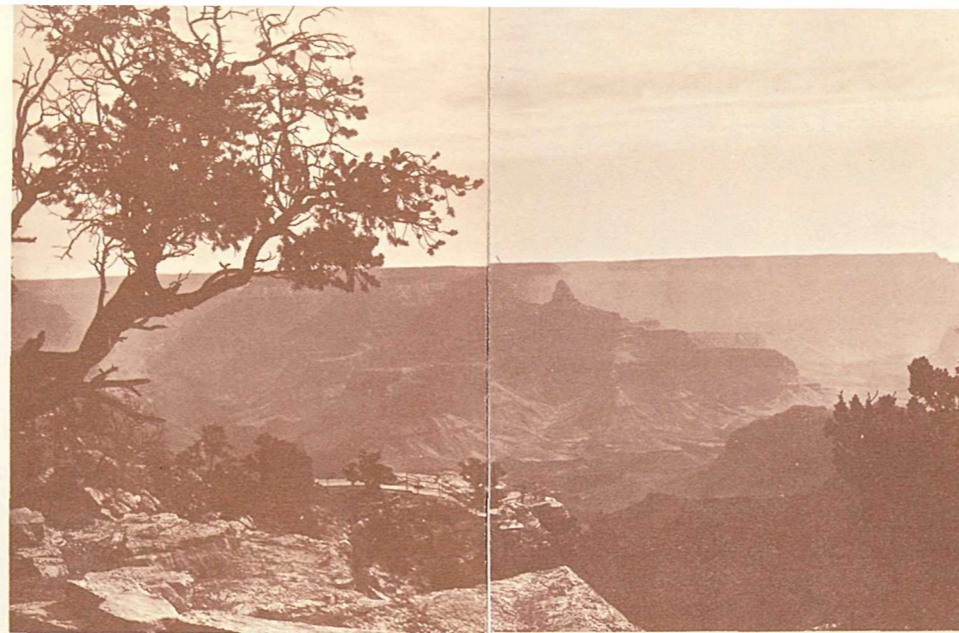
**The River Trip** is somewhat longer than the Plateau Point Trip and takes you to the river's edge. Trip available from March through October.



**The Phantom Ranch Trip** is a 2-day adventure and one of the major attractions. You reach Phantom Ranch by way of the inner gorge and an hour's ride along the river. Then you cross the suspension bridge, continuing about 1 mile farther to the ranch. You arrive before evening to find a swimming pool and a meal awaiting you. The next morning, you start the return trip, by a different but equally colorful route. Somewhat faster than the trip down, it brings you to the South Rim at Yaki Point in time for lunch.

A word of reassurance about the mules. Before they are allowed to carry people, they undergo a long apprenticeship. The wrangler in charge considers each member before he assigns him a mule, and he places the animal in the string with great care.

**Going on Foot** can be rugged. Unless you are very certain of your stamina, do not hike to the river. A canyon trip is the reverse of mountain climbing. The uphill grind comes at the end, not at the beginning when you are fresh. The climb out means an ascent of nearly 5,000 feet. Even if you are an experienced hiker, allow yourself plenty of time. Carry an adequate supply of water. A gallon a day per person is recommended. Wear a hat and a long-sleeved shirt. Canyon temperatures may rise as high as 124°F. in summer. Heat exhaustion is common. Hikers are therefore cautioned to obtain the "Hiker Information Bulletin" at any ranger station before a canyon hike. Hiking conditions are best in spring and autumn when weather is mild on the rims and within the canyon. Anyone planning to use trails not described in this folder must get a permit from the district ranger's office at the visitor center.



(Left) At the foot of Bright Angel Trail, a placid stretch of the Colorado belies the river's power. (Above) Observation area on South Rim opens yet another view of the canyon's sweep and color.

**Bright Angel Trail** follows a twisting 8-mile course from the South Rim to the river. The 9-mile round trip to Indian Gardens is a good day's hike for the sturdiest.

**The River Trail**, 2½ miles long, connects the Bright Angel and Kaibab Trails.

**South Kaibab Trail** leads 7 miles to the river from the rim at Yaki Point. The hike to Cedar Ridge, 1½ miles down the trail, is a good half-day outing. The South Kaibab Trail, steeper than Bright Angel Trail, is recommended for the downward, rather than the return, trip. There is no water on this trail. Whatever your route, allow ample time to return to the rim before dark. Hikers can be accommodated at Phantom Ranch if advance reservations are made.

**North Kaibab Trail**, which joins the South Kaibab Trail at the river, completes the cross-canyon link to the North Rim. The trail crosses Bright Angel Creek at many points—some without bridges—so be cautious when the water is high. If in doubt, do not try to cross. There are four campgrounds on this trail between Phantom Ranch and the North Rim.

**Emergency service**—a guide and mule sent down from either rim—is \$35 for a ride out from Phantom Ranch, \$40 after 4 p.m.; and \$20 to \$25, depending on location, from other parts of the trail. Being a "drag-out" is expensive.

**Trail telephones**, for emergency use only, are located on the Bright Angel and Kaibab Trails.

**Water** is available, in summer only; on the Bright Angel Trail at two points between the South Rim and Indian Gardens. From there to the river, the hottest part of the trip, none is available, so be sure to carry a canteen.

**Camping below the rims** can be a rewarding experience if well planned. But be sure to burn or carry out your trash.

**Trail shortcutting** and rock-rolling are strictly forbidden. They may cause landslides, endangering others on the trail as well as yourself. Watch for mule parties, and stand still on the outside of the trail until they have passed.

*In case of accident, notify the chief park ranger's office.*

**Scenic flights** over the canyon are provided by Grand Canyon Airlines in summer. Make arrangements at the airport south of the park.



Shadows etch canyon forms in view from West Rim Drive.

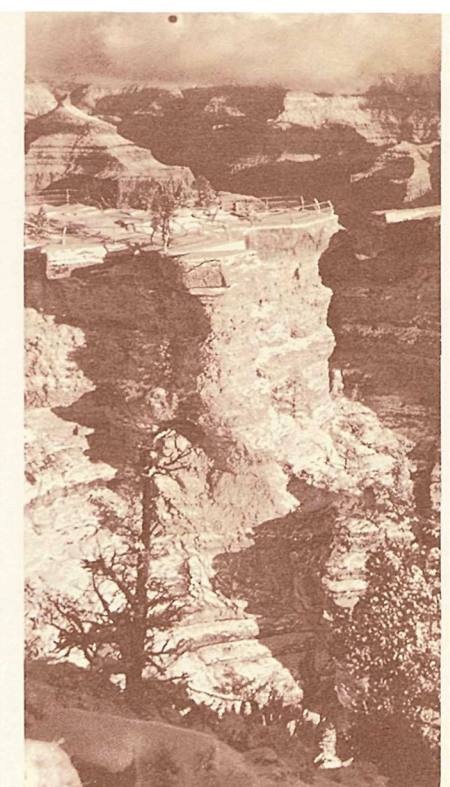
### Visiting the Havasupai

A trip to the Havasupai Indian Reservation in Havasu Canyon, deep in the westernmost end of the park, is a rugged but memorable experience. Reservations must be made in advance by telephoning or writing the Tourist Manager, Havasupai Tourist Enterprise, Supai, Ariz. At your request, he will send someone to meet you at Hualpai Hilltop for the trip into the canyon.

It is 143 miles by car from the South Rim (Grand Canyon Village) to a point 5 miles east of Peach Springs, Ariz., on U.S. 66, thence 62 miles north to Hualpai Hilltop. The last 30 miles are rough, but passable. Leaving your automobile at the rim, you ride an Indian pony or hike the 8 miles to Supai.

The Supai serve no meals; so you must prepare to camp or to cook your own food at the tourist lodge, or the dormitory, which are operated by the Havasupai Tribe. Some groceries can be purchased in the tribal store.

If you hike into the reservation, a fee of \$1 is charged. Camping is free in the National Park Service campground. No firewood is available, so you must furnish your own fuel and stove. Load limit for packhorses is 150 pounds.



Dusted with snow, Mather Point shines in the sun as storm moves on toward the North Rim.

### The Naturalist Program

**The visitor center** is at the eastern edge of the village. Take time to see the exhibits early in your stay. Four sections—geology, biology, Indians, and history—describe the canyon's origin; the fossil record of ancient life; effects of the canyon on climate, plants, and animals; and how it has been explored.

**Yavapai Museum**, 1 mile east of the visitor center, features geological exhibits and talks by park naturalists.

**Tusayan Ruin and Museum**, near Lipan Point, contains exhibits about the early human history of the canyon area and the ruins of Tusayan pueblo, built about A.D. 1185. Museum is open only in summer.

**Illustrated talks** are given every summer evening at the amphitheater near the visitor center. Subjects vary from day to day and deal with human history, natural history, geology, and the seasons.

See bulletin boards for schedules.



### Seasons on the South Rim

As roads on the South Rim remain open all year, travelers can enjoy the canyon in any season. On the rim, a sweater or coat is comfortable the year round. And bring a raincoat—just in case.

Spring, heralded by flowers, is followed quickly by summer. From June into September, temperatures range from the mid-forties at night to the mid-eighties in the daytime; the relative humidity is generally low. It seldom rains in June, but brief thunderstorms are frequent in July and August. In the canyon, midsummer temperatures reach 100° to 120°F.

Autumn is a short season here, for summer is soon followed by the crisp, clear days of the South Rim winter. Snow may first fall in October or November. From November to April, temperatures are likely to drop below freezing at night, but by day the forties and fifties are the rule.

### How to Reach the South Rim

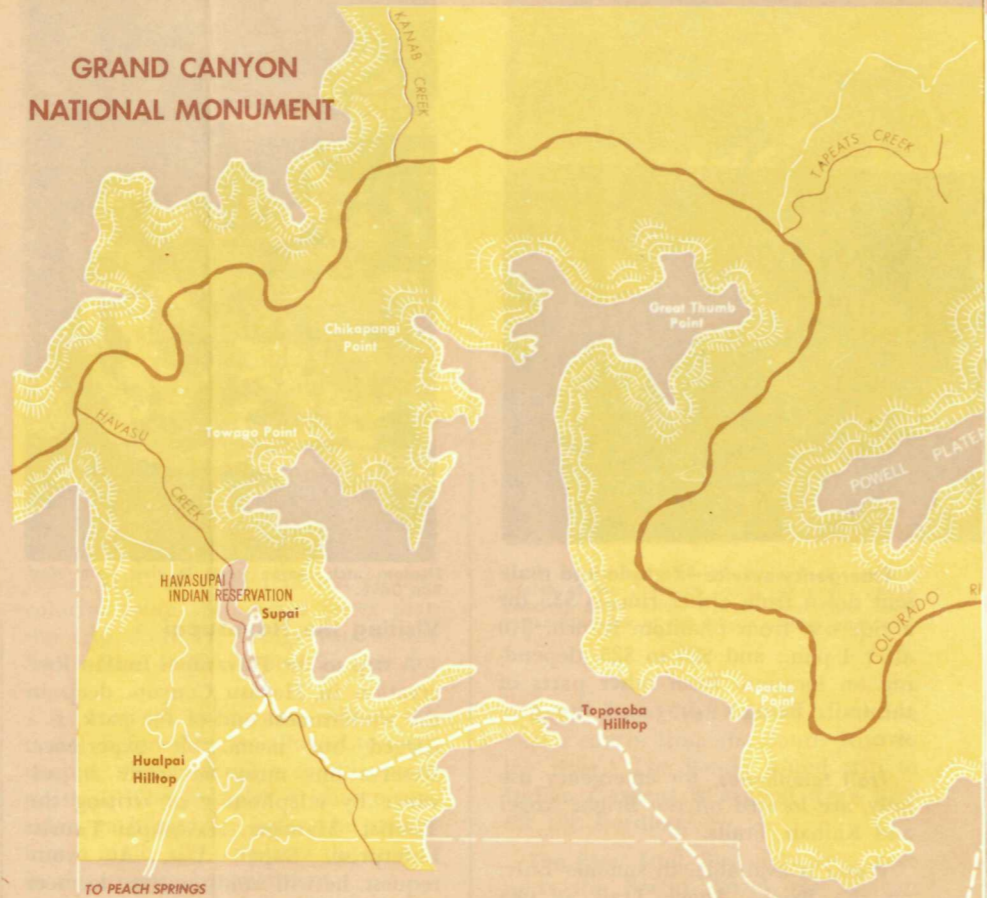
**By automobile.** U.S. 66 crosses northern Arizona through Williams and Flagstaff. The Grand Canyon is less than a 2-hour drive from both cities over all-weather paved roads. U.S. 89, a major north-south route, provides access to the park at Cameron, Ariz. An all-weather scenic highway enters the park near Desert View.

**Airlines, buslines, and a railroad** serve Williams and Flagstaff. Airlines serve Grand Canyon directly by means of an airport south of the park. Each flight is met by a bus that takes passengers to Grand Canyon Village. Buslines serve Grand Canyon Village from Williams and Flagstaff, and in the summer a local train makes a daily round trip between Grand Canyon Village and Williams, connecting with certain through trains.

### Accommodations and Services—South Rim

Accommodations range from free campgrounds to hotel suites.

## GRAND CANYON NATIONAL MONUMENT



TO PEACH SPRINGS

**NPS campgrounds** are maintained at the village and at Desert View. Each site has a table and fireplace. Firewood may be purchased from a concessioner. Water and comfort stations are nearby. Campsites cannot be reserved.

**Trailer Village**, near the visitor center, has utility hookups.

**Hotel facilities** are available. For rates and reservations, write to Fred Harvey, Grand Canyon, Ariz., 86023.

**Grand Canyon Hospital** is near park headquarters.

**The post office** is near park headquarters. The mailing address is Grand Canyon, Ariz.

**General services** are a bank, American Express, telegraph office, service station, garage, and a general store with a supermarket.

**Church services** are conducted throughout the year. Protestant: Sunday mornings at the Community Building. Latter-day Saints: Grand Canyon School. Roman Catholic: Bright Angel Lodge. Inquire for times.

**Telephones** are available at hotel and lodges, at the visitor center, and adjacent to the general store. There is telephone service to the North Rim, Phantom Ranch, and Havasupai Indian Reservation.

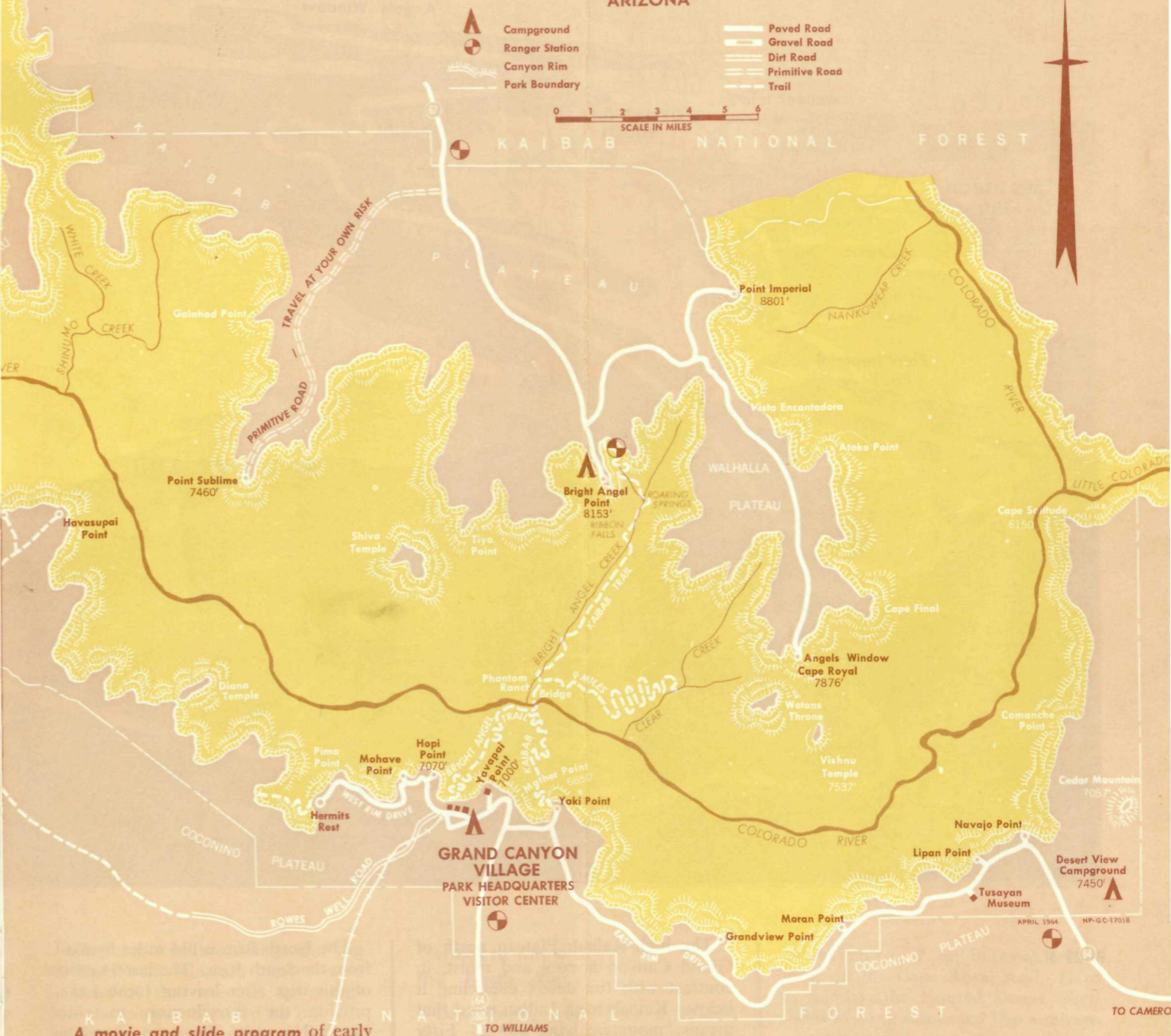
**Air charter service** is available in summer between the North and South Rims; however, there is no direct scheduled public transportation between the North and South Rims.

## GRAND CANYON NATIONAL PARK

ARIZONA

- Campground
- Ranger Station
- Canyon Rim
- Park Boundary
- Paved Road
- Gravel Road
- Dirt Road
- Primitive Road
- Trail

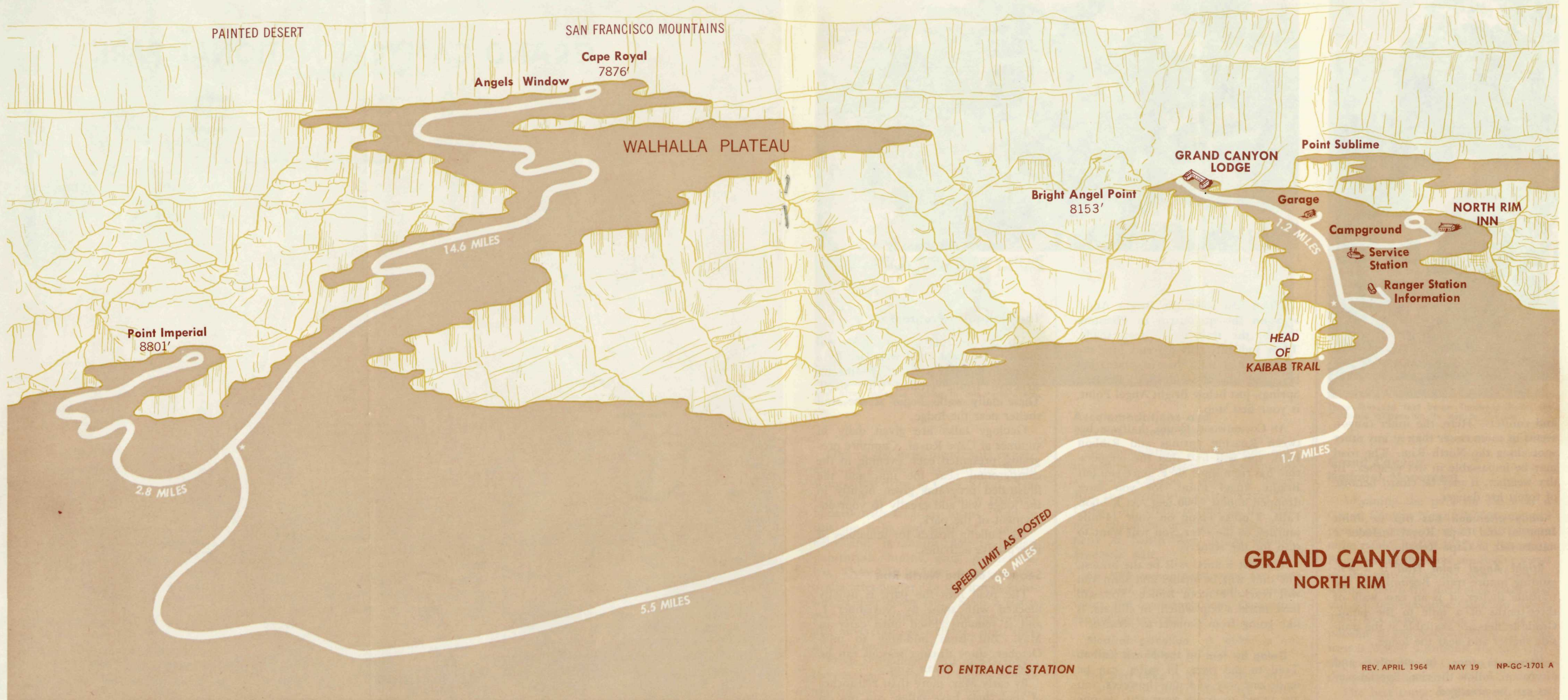
SCALE IN MILES



GRAND CANYON VILLAGE  
PARK HEADQUARTERS  
VISITOR CENTER

**A movie and slide program** of early Colorado River exploration by the Kolb brothers is shown daily at the Kolb Studio, west of Bright Angel Lodge.





PART II

guide  
to the  
north rim

The high Kaibab Plateau north of Grand Canyon is cool and moist, in contrast with the desert encircling it below. Kaibab is an Indian word that means "mountain lying down." Fifty miles long and 35 miles wide, this plateau is covered by a beautiful forest. Spectacular buttes and temples form the canyon foreground views.

The North Rim is 214 miles by road from the South Rim. The last 44 miles of this trip, after leaving Jacob Lake, provide the introduction to your North Rim visit. This road, closed by snows in winter, leads through a forest of tall pines, spruce, and quaking aspen. Deer and wild turkey forage in grassy meadows.

The ranger station, lodge, and inn on the North Rim are located on a promontory that stretches for a mile into the canyon, bounded on one side by Roaring Springs Canyon and on the other by The Transept, another side canyon. The end of the promontory is Bright Angel Point, 13 miles from the entrance station.

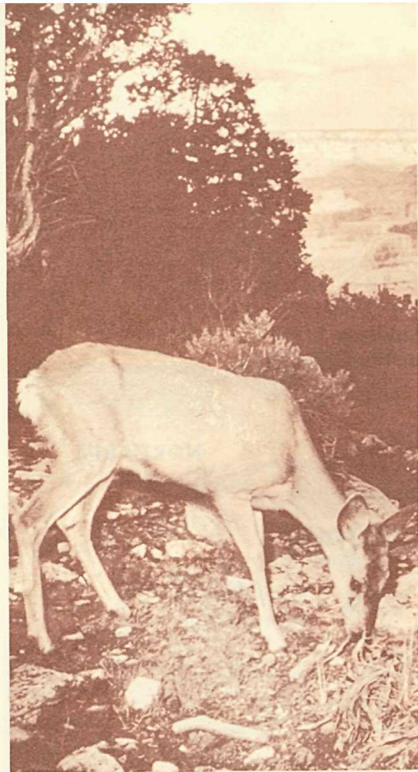
Getting to Know  
the North Rim

Cape Royal, reached by a 26-mile drive along a paved road, provides a view of the canyon eastward to the Painted Desert. Stop, too, for a view of the canyon through Angels Window. Returning, take time for the

3-mile drive to Point Imperial, which leads off the Cape Royal road. Here at midday, the Painted Desert often seems to hang suspended like a mirage on the eastern horizon.

The road to Point Sublime is primitive, and drivers are urged to use caution. It leads through forests of aspen





and conifers. Here, the inner canyon seems to come closer than at any other spot along the North Rim. The road may be impassable in wet weather. In dry weather, it may be closed because of forest fire danger.

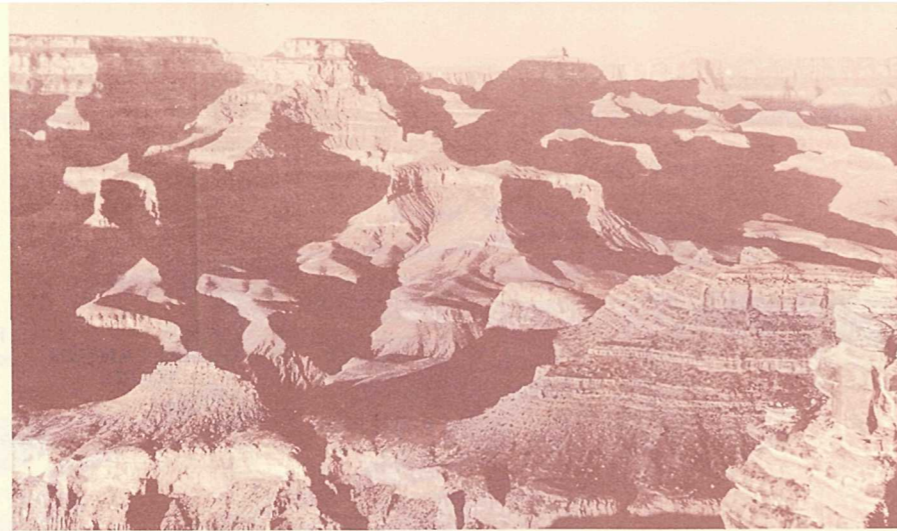
**Daily afternoon bus trip** to Point Imperial and Cape Royal includes a nature talk at Cape Royal.

**Bright Angel Point Trail** is a self-guiding nature trail. Beginning at the trailside shelter, it is an easy walk of three-tenths of a mile to the point. Guide leaflets are available at the trailside shelter and near the lodge.

**Horseback trips**, in morning and afternoon, follow the rim. Special parties can be arranged.

### Exploring the Canyon

**Going by muleback** down the North Kaibab Trail matches the South Rim's Phantom Ranch Trip for thrills and superb scenery. You can go to Roaring Springs (4.6 miles) and return in 1 day. Another trip takes you all the way to Phantom Ranch. Reserve your mule in advance. A minimum of three persons is required for each trip.



This cross-canyon view shows, in upper left, Cape Royal and Wotan's Throne, North Rim features.

When you leave the Bright Angel area on the mule trip to Phantom Ranch, the trail is in deep shade. Then suddenly you descend into the canyon on a trail that in places has been cut out of solid rock. Roaring Springs, just below Bright Angel Point, is your first stop.

At Cottonwood Camp, halfway between Roaring Springs and Ribbon Falls, you will find that the temperature has risen some 30°F. since you left Bright Angel Point, for you have dropped almost 4,000 feet. At Ribbon Falls, 9 miles along on your 14-mile journey to the river, you will want to stop for the scenery.

The last 5 miles will be the hottest, but they will be shady, and soon you will reach Phantom Ranch. You will have made a trip which, in climate, is like going from Canada to Mexico.

**Going by foot** on the North Kaibab Trail to the river, 14 miles, can be made one way in a day; however, you are urged to break your trip at one of the four campgrounds en route. There are two other things to watch. First, be very careful in crossing the creek during high water. Second, while mule parties are passing, stand still on the outside of the trail. Canyon hikers should obtain the "Hiker Information Bulletin" at the North Rim Ranger Station. Anyone planning to use trails not described in this folder must get a permit from the district park ranger.

### The Naturalist Program

Visitors desiring a short hike will find the Transept Trail walk, led by a ranger-naturalist, a leisurely and instructive 1-mile (round trip) stroll. These daily walks begin at the trail shelter near the lodge.

Geology talks are given daily in summer at Cape Royal. Campfire programs, presented each evening in the campground near the inn, and the illustrated programs given nightly in the lodge will add greatly to your enjoyment of the park.

See bulletin boards for schedules of interpretive activities.

### Seasons on the North Rim

The road into the park is usually blocked with snow by November 1, and it remains closed until early in May. But from mid-May to mid-October, three distinct seasons can be enjoyed at the North Rim.

By early May, more than 200 inches of snow may have fallen, but out on Point Sublime and Cape Royal, warm updrafts from the inner canyon will have allowed spring flowers to bloom. Cactus, agave, and cliffrose will be in brilliant blossom, and the noon air will have midsummer warmth. Between the park entrance and Bright Angel Point, the meadows fill with flowers, but snowbanks remain near the forest edge. Nights are cold, and even in sunshine the air is chilly.



Mist gives Japanese feeling to this camera art. In hazy outline, rock forms march to a distant rim.

One of the most memorable experiences of a summer visit to the North Rim is the drive to Cape Royal. The last part of it is along a roadway hedged with fragrant locust. Add to this the sight and smell of countless field and mountain flowers—Indian paintbrush, lupine, gilia, penstemon, iris, Queen-Annes-lace, forget-me-not, and scarlet-bugler. In the forest, families of deer roam late. Keep a sharp eye out for them along the road—they are inveterate jaywalkers, and they give no notice.

From September until mid-October, days are still warm, and aspens mantle the hillsides with gold. This is a good time to visit the North Rim.

### How to Reach the North Rim

A paved road leaves U.S. 89A at Jacob Lake, Ariz. This road is closed by snow from about mid-October to mid-May. Public transportation to the North Rim is available only from mid-June through August by bus from Cedar City, Utah.

### Accommodations and Services—North Rim

Accommodations are available only in summer. For rates and reservations at Grand Canyon Lodge and North Rim Inn, write to the Utah Parks Co., Cedar City, Utah, or, during the summer, telephone or write to that company at North Rim Rural Station, Fredonia, Ariz.

**An NPS campground** near the inn has tables, fireplaces, wood, running water, and comfort stations. Campsites cannot be reserved.

**Medical attention.** A nurse is on duty at the lodge.

**The post office** is in the lodge. Mailing address is General Delivery, North Rim Rural Station, Fredonia, Ariz.

**Church services.** Protestant, Roman Catholic, and Latter-day Saints services are held on Sundays. Inquire at the lodge for time and place.

**Telephones** are at the lodge and inn.

**A service station and grocery store** are at Bright Angel Point, on the road to North Rim Inn.



Three thousand feet below Toroweap Point, the Colorado glistens on its way to the sea.

### Grand Canyon National Monument

Adjoining the park on the west is Grand Canyon National Monument, a primitive area of about 310 square miles established in 1932. At Toroweap Point one of the most impressive views in the canyon awaits you. Looking straight down the sheer rock walls, you can see the snakelike Colorado River, 3,000 feet below. Such a view is not possible in the National Park. To the west is Mount Trumbull, the last landmark of the Grand Canyon country on the western horizon.

The best route to Toroweap leaves the main highway at the town of Fredonia near the Arizona-Utah border. The 65-mile graded road to Tuweep Ranger Station is easily passable in good weather. Toroweap Point is 5 miles by unimproved road beyond the ranger station. No supplies, lodgings, or meals are available after leaving Fredonia. A small campground is near Toroweap Point. No water is available.



# the canyon's natural history

## Geology

In the many colors of its layered walls and in the black rock of its gorge, Grand Canyon reveals a great story of slow, but relentless, change in the earth's crust.

How was the canyon formed? In geologic time, it is a new canyon still being carved—the down-cutting process began only about 7 million years ago. At that time the ancestral Colorado River flowed in about its present course over a vast, low-lying plain. Then a general rising of the land caused the river to flow more swiftly. At the same time, a slow and gentle doming occurred in this region. The swift river was able to cut downward about as fast as the dome rose. As a result, the Colorado maintained its course as the canyon walls grew higher and higher above it.

The river itself has cut only a narrow slot. The great width of the Grand Canyon is the result of erosion by landslides, runoff of water from the sides, ice and frost action, and other agents.

In the process, much rock debris—boulders, gravel, sand, and mud—has been working downhill to the river. Hence, the forces widening the canyon have been supplying the Colorado's waters, flowing at an average rate of 7 miles an hour, with cutting tools—sand for scouring, boulders for pounding. Century after century, these tools have helped deepen the gorge. For years, the river's raging brown and red torrents carried past any given point in the canyon an average of half a million tons of mud and sand every 24 hours! In addition, its waters probably swept a nearly equal load of boulders along the river bottom. Now, because of the closing of Glen Canyon Dam upstream from Grand Canyon, the impounded waters of Lake Powell retain much of this silt and sand.

In cutting this renowned chasm, which measures roughly 217 miles long, 9 miles wide, and 1 mile deep, the Colorado River has exposed a great series of rock layers. From many points you can see fine examples of the rocks of all the known eras of geological time—from the Precambrian to the present era, the Cenozoic—a span of nearly 2 billion years. Few places in the world permit this geologic perspective.

The hard black rock of the inner gorge of the Grand Canyon, a narrow, V-shaped chasm 1,500 feet deep, belongs to the most ancient geologic era—the Precambrian. This rock was originally composed of lavas and layers of gravel, sand, and silt built up both in the sea and on land. But tremendous pressures and heat from mountain-building forces, perhaps a billion years ago, recrystallized these original formations into the dark, vertically platy rock called schist that you see in the inner gorge today.

The ancient mountains built up at that time were slowly worn away. Upon their remnants, many rock layers were later deposited in seas or on land. Eventually, by uplifting and faulting, new mountains were built, and these in their turn were eroded away. The horizontal rock layers in the upper walls of the Grand Canyon are therefore younger and have been subjected to less change than the ancient layers of the black inner gorge. Today, we can identify in the upper walls thick layers of limestone derived from deposits in prehistoric seas, shales derived from muds, and sandstones derived from sands.

In these rock layers are fossil remnants of prehistoric life. First are primitive sea plants; then, in younger and hence higher layers, are primitive seashells and crablike trilobites. Still higher, traces of later, more advanced forms successively appear. Here are the armored fish which were among the first creatures with backbones. Next are the early kinds of land life: fine fossil ferns, and remains of salamanderlike and lizardlike reptiles.

Here, amid the majesty and beauty of the Grand Canyon, then, is the story of the earth.

## Life Zones

North America has been divided into seven major temperature zones according to latitude, ranging from Tropical at the Equator to Arctic in the polar region. Biologists, observing that plants and animals typical of each zone differ appreciably from those in adjacent temperature zones, have called them "life zones." The same zoning as to temperature, plants, and animals also can occur at a single latitude in areas that extend from low to high elevations. Thus, in the Grand Canyon region, at a single latitude, the elevation range from 2,000 to 9,000 feet creates a wide climatic variation and five different life zones.

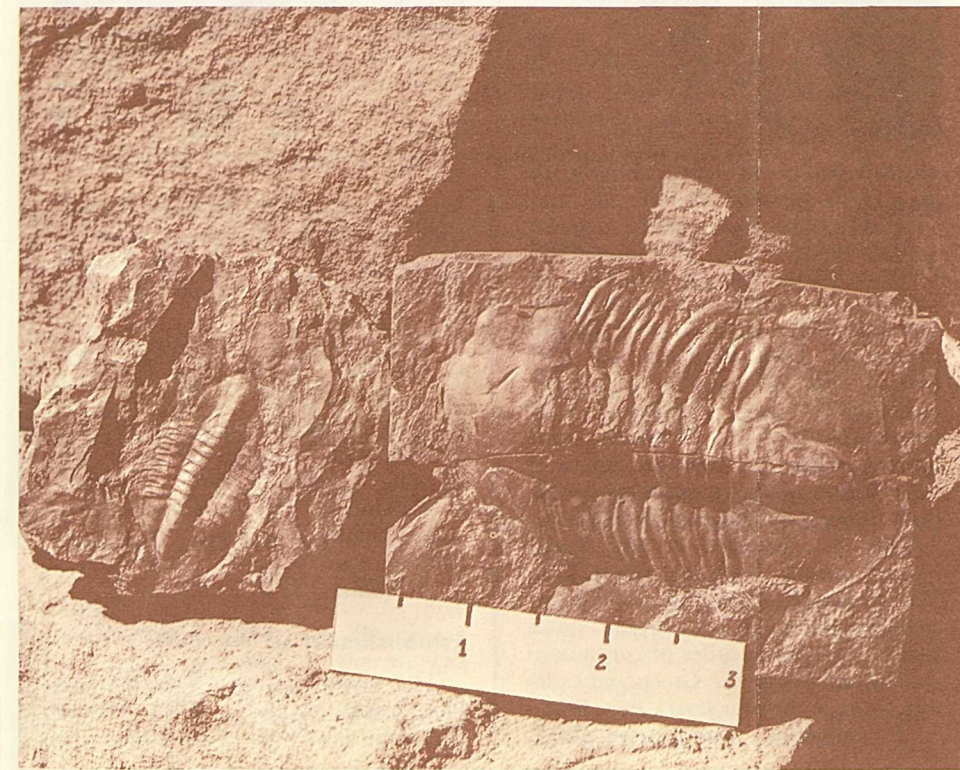
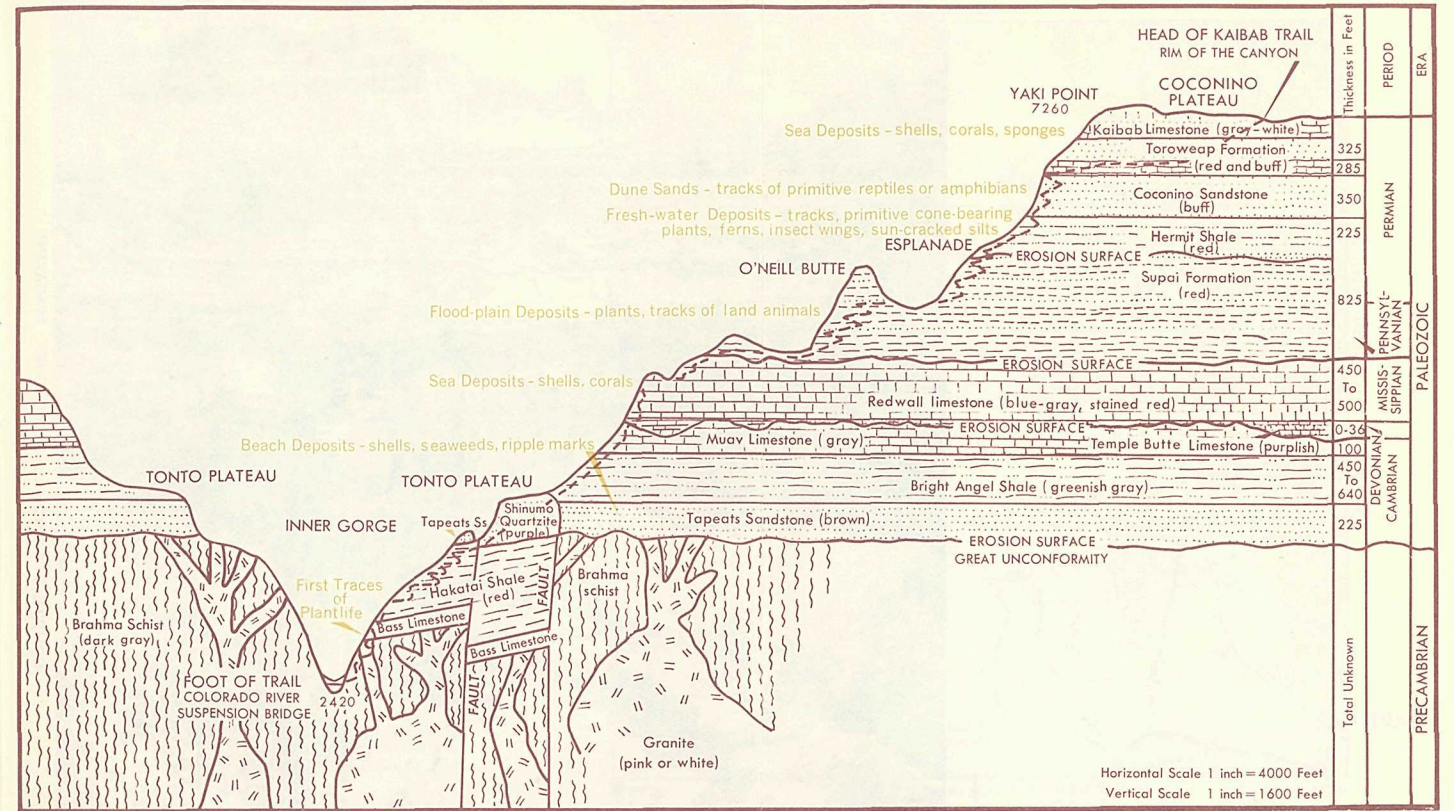
The Lower Sonoran zone, the next zone north of Tropical, has the climate of southern Sonora, Mexico. In Grand Canyon it occurs at river level (2,000 feet elevation). Typical plants are cactus, agave, and yucca; animals are also those of the desert—chuckwalla and desert spiny lizards, rattlesnake, and black-throated sparrow. Part way up the ascent to the South Rim, the climate, vegetation, and animal life become typical of the next zone north, the Upper Sonoran, which is characterized by the pinyon and juniper belt.

The Transition zone, the next zone still farther north, appears on the South Rim at 7,000 to 8,000 feet elevation. Here, in the ponderosa pine forests, you can see such birds as Steller's jay and mountain chickadee.

Familiar flowers of the South Rim, from spring to autumn, include phlox, blue penstemon, buttercup, spring-beauty, mahonia, cliffrose, rabbitbrush, wild sunflower, purple aster, sulfur eriogonum, snakeweed, and paper-flower.

The river itself is a barrier to the smaller creatures, but climatic differences between life zones also prevent many animals from crossing from rim to rim. Some birds go from zone to zone briefly. But each bird species is at home in that life zone where climate, plants, and food supply are most suited to its habits.

Because of the double barrier imposed by the deep canyon and the contrasting climatic zones, we see many differences in plants and animals on



Millions of years ago, the sea was here, and trilobites fed on its floor. Some of these crab-like creatures became fossilized in deposits in those seas. Specimens shown here came from lower part of the Bright Angel shale. (See diagram, left.)

the North and South Rims, even though they are only 9 miles apart. The white-tailed black Kaibab squirrel on the North Rim is separated by a hostile chasm and climate from its near relative on the South Rim—the Abert's squirrel, with a gray body, gray tail, and white underparts. The famous blue spruce on the North Rim are not seen at all on the other side of the canyon. This is because the North Rim is 1,000 to 2,000 feet higher than the South. As a result, the North Rim extends, at about 8,000 feet, into the Canadian zone, and at 9,000 feet into the still cooler Hudsonian zone.



PART IV

man in grand canyon

Prehistory

The walls of Grand Canyon and the plateaus along both rims hold the story of the prehistoric people who lived there. Some of them lived below the rims in small, family-size cliff dwellings built like fortresses for protection from enemies. Pottery fragments and other remains indicate a thriving culture. Traces of small gardens suggest how these Indians used the land.

By the time the first Europeans visited the area, the pueblos and cliff dwellings of Grand Canyon were already long abandoned. Probably drought and marauding Indian foes forced the dwellers to leave. For a fuller story of the early Indians, visit the Tusayan Ruin and Museum near Desert View.

History

Recorded history of the Grand Canyon began with its discovery in 1540 by Don Lopez de Cardenas, one of Coronado's captains, and 12 followers. In 1848, after the war with Mexico, the United States became owner of the region by the treaty of Guadalupe Hidalgo. Trappers occasionally passed by the canyon, and their stories of the great gorge quickened interest in its exploration.

The first successful transit of the canyon came in 1869, when Maj. John Wesley Powell, a one-armed Civil War hero, made a daring voyage down nearly a thousand miles of continuous canyons carved by the Green and Colorado Rivers. In four boats, Powell and nine companions started from Green

River, Wyo., on May 24. Three months later, having faced scores of thunderous rapids and a constant sense of unknown danger, the party emerged from Grand Canyon.

Tourist travel to the canyon began in the 1880's when John Hance, a miner turned dude wrangler, began to improve the Indian trails and to greet visitors with his tall tales of the canyon. A hotel was built at Grandview Point in 1892; the Santa Fe Lines completed track to the South Rim in 1901; and the first automobile arrived at the South Rim in 1902.

Establishment of the Park

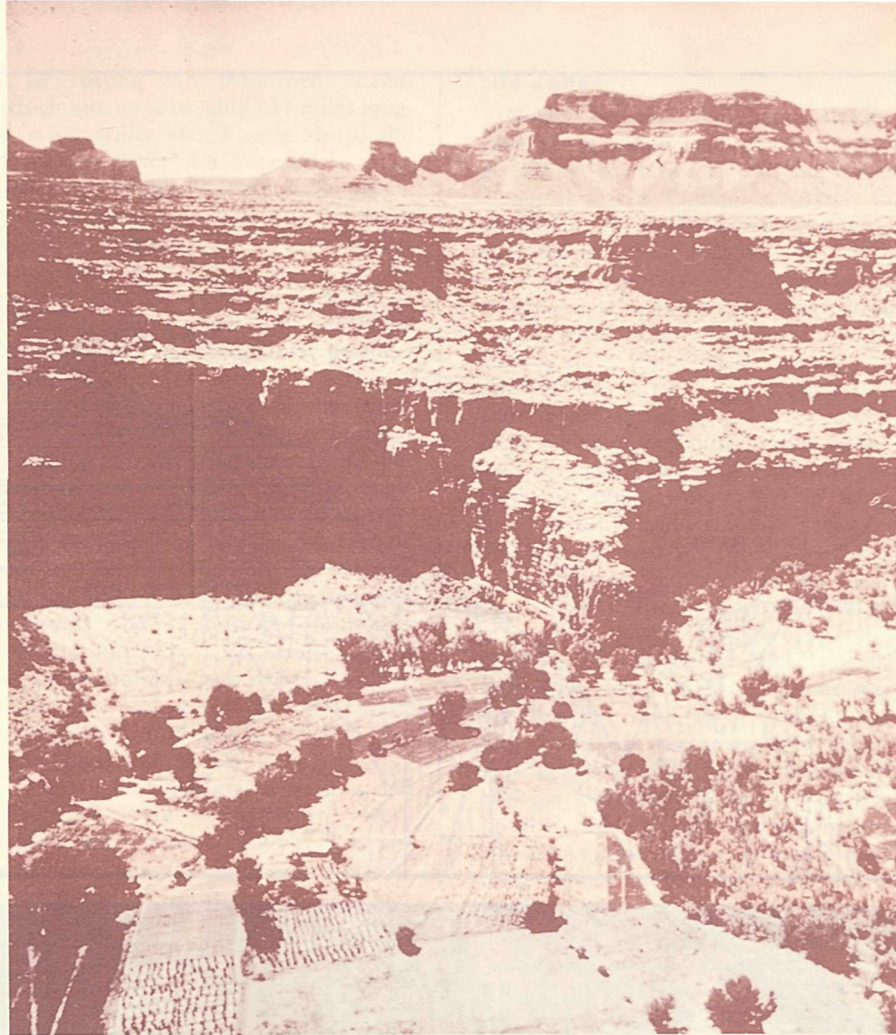
The movement to protect the canyon began in 1887, when Senator Benjamin Harrison, of Indiana, intro-

duced a bill to make it a National Park. Opposition by both public and private interests delayed the passage of such a bill for more than 30 years. In 1893, as President of the United States, Harrison established the Grand Canyon Forest Preserve; but the area was still open to exploitation by mining and lumbering interests.

President Theodore Roosevelt, after his first trip to the canyon in 1903, said, "Do nothing to mar its grandeur . . . keep it for your children, your children's children, and all who come after you, as the one great sight which every American should see." In 1908, he established Grand Canyon National Monument. Finally, an act of Congress signed on February 26, 1919 established Grand Canyon National Park.

The Indians Today

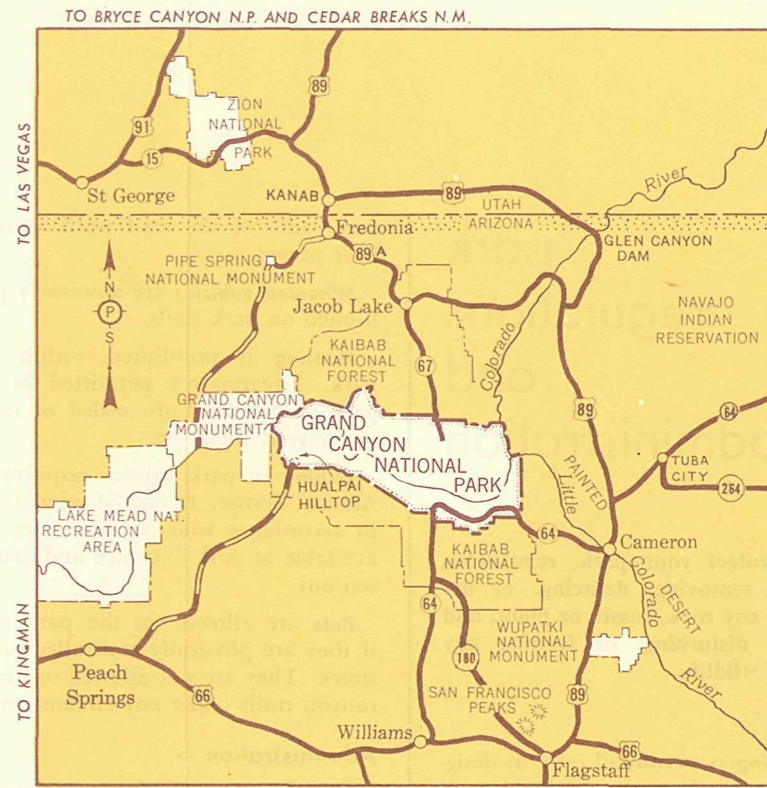
Indians now inhabiting the Grand Canyon region belong to one of three tribes—Navajo, Hopi, or Havasupai. The Havasupai live in the western part of Grand Canyon. The Navajo and Hopi live on reservations east of the park.



Havasupai farms make an unexpected pattern in the rugged Grand Canyon landscape.



Hopis perform feather dance on the South Rim.



Within half a day's drive from Grand Canyon are several outstanding areas of the National Park System.

The Havasupai are a peaceful nation whose people say they have never killed a white man. In the 12th century, their ancestors were driven from their homes on the plateaus near the Grand Canyon by raiding Indians, but they found a haven in Havasu Canyon. Their oasis, 2½ miles long and nearly half a mile wide, is watered by spring-fed Havasu Creek. From its color comes the name Havasupai, or "people of the blue-green water." Below the village of Supai are three waterfalls of great beauty, one of which is 200 feet high.

Today, these Indians number about 200. They farm the fertile valley, raising grain, fruit, and vegetables. They augment their farm income by providing accommodations and services to visitors who follow the trail into their canyon. Unlike the other Indians of the region, who hold frequent tribal ceremonies, the Havasupai have only one major celebration—the Peach Harvest Festival in August.

The Navajos are far more numerous (90,000), and their 25,000-square-mile reservation is the largest in the United States. Still partly nomadic, they prefer to live in the open or in isolated hogans rather than in villages. They raise sheep and goats, and, when they stop long enough in one place, they farm. Their chief source of income—next to sheep and goats—is from the sale of blankets and jewelry.

Four thousand Hopis (their name means "peaceful people") live in 11 villages in a reservation surrounded by the much larger Navajo Reservation. Intensely conservative, the Hopis live today in their mesa-top pueblos almost as the Spaniards found them 400 years ago. They derive most of their livelihood from the soil. Corn is their chief crop, and some of their ceremonial dances are marked by prayers for rain and good harvests. The best known of these dances is the snake dance. Visitors are welcome to watch this ceremony, which takes place about mid-August.



## park regulations and administration

To protect your park, regulations prohibit removing, defacing, or destroying any rock, fossil, or plant; and hunting, disturbing, or feeding any form of wildlife.

**Camping** is permitted only in designated areas. You are limited to 14 days. Dispose of burnable rubbish in your campfire; put other refuse in trash cans.

**Campfires** may be built only in designated areas in the campgrounds. Before leaving your camp, be sure your fire is thoroughly extinguished. Report any unattended fire to a park ranger.

**Maximum speed** on park roads is 45 m.p.h., except where posted. Drive carefully.

**Hiking and riding** calls for care. Stay on the trails. If you shortcut, you may dislodge earth and rocks and seriously injure people below you. Horses and mules have the right-of-way; if you are on foot, stand quietly on the

outer side of the trail until animals have passed.

**Wheeled vehicles** are absolutely prohibited on park trails.

**Hunting** is prohibited within the park. Firearms are permitted in the park only if they are sealed or cased to prevent their use.

**Fishing** in park streams requires an Arizona license. Details of regulations, in accordance with Arizona laws, are available at park entrance and ranger stations.

**Pets** are allowed in the park only if they are physically controlled at all times. They are not allowed on inner canyon trails under any circumstances.

### Administration

Grand Canyon 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.

**The superintendent**, whose address is Grand Canyon, Ariz., 86023, is in immediate charge.

**Park rangers** are the protective force of the National Park Service. Their job is to help you and to enforce park regulations. You will find them at entrance stations, ranger stations, and patrolling roads and campgrounds.

**Park naturalists**, the interpretive force of the Service, operate the visitor center and museums and conduct nature walks, campfire programs, and other interpretive activities.

### Visitor-use Fees

Vehicle permit fees are collected at entrance stations. Fees are not listed because they are subject to change. The information may be obtained by writing to the superintendent. Fees, deposited in the U.S. Treasury, partially offset the cost of operating the National Parks.

### America's Natural Resources

Created in 1849, the Department of the Interior—America's Department of Natural Resources—is concerned with the management, conservation, and development of the Nation's water, wildlife, mineral, forest, and park and recreational resources. It also has major responsibilities for Indian and territorial affairs.

As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely, that park and recreational resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States—now and in the future.

# GRAND CANYON

GRAND CANYON NATIONAL PARK . ARIZONA

## COME WITH NATURE ON AN ADVENTURE IN TIME AND SPACE

Silence, space, and color—these command at Grand Canyon. Its vastness swallows sound. Any motion against this enormous backdrop, except that of cloud shadows, passes unnoticed. And its sea of colors, ever-changing, spreads the immensity with incredible beauty.

Equally grandiose here is the dimension of time. It took 7 million years for the Colorado River, with further sculpturing by rain and melting snow, to carve this chasm in the gradually rising crust of the earth . . . a record reaching nearly to the earth's beginning.

The river, entering the park on the east from the Painted Desert, follows a winding course for 105 miles through Grand Canyon National Park. The park spans nearly 50 air miles from east to west and about 25 miles from north to south. Its total area comprises 1,100 square miles.

The park's most important dimension, however, is altitude. The 7,000-foot range in elevation makes it possible for a thermometer at the bottom of the canyon to register 50°F. while a snowstorm rages on the rims. It causes a progression of climate, with attendant changes in plant and animal life, from that of a Mexican desert at the canyon bottom to that of southern Canada at the North Rim.

Thus, much will be missed if one confines his exploring to the rims. Even with a day or two, take one of the shorter mule trips, or a brief hike, into the canyon on the Bright Angel or Kaibab Trail. Looking into the canyon is one kind of thrill. Looking out of it is an entirely different experience.

