RULES AND REGULATIONS

MESAS VERDE
NATIONAL PARK
COLORADO

SOUTHERN PORTION OF CLIFF PALACE

1923
SEASON FROM MAY 15 TO NOVEMBER 1
Fire temple group from Sun Point Road.

Square Tower House, excavated and repaired.
THE NATIONAL PARKS AT A GLANCE.

[Number, 19; total area, 11,372 square miles.]

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<td>Rugged mountain region of unsurpassed Alpine character—250 glacier-fed lakes of romantic beauty—60 small glaciers—Precipices thousand of feet deep—Almost sensational scenery of marked individuality—Fine trout fishing.</td>
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<td>Grand Canyon</td>
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MESA VERDE NATIONAL PARK.

ITALS PREHISTORIC INHABITANTS.

Of all the many ruins of prehistoric cliff dwellings in the southwestern United States those in the side canyons of the Mancos River are for many reasons the most remarkable. Congress has set aside a plateau of 48,966 acres in southwestern Colorado for their preservation, and called it the Mesa Verde National Park.

The ruins in the Mancos Canyon were discovered as early as 1874, when Mr. W. H. Jackson, who led the Government party, found there many small dwellings broken down by the weather. The next year he was followed by Prof. W. H. Holmes, later chief of the Bureau of American Ethnology, who drew attention to the remarkable stone towers also found in this region. Had either of the explorers followed up the side canyons of the Mancos they would have then discovered ruins which, in the words of Baron Gustav Nordenskiöld, the talented Swedish explorer, are "so magnificent that they surpass anything of the kind known in the United States."

The Mesa Verde National Park is one of the few large tracts of land in the United States which has been taken from the public domain to preserve the antiquities it contains. It is the most extensive reservation for this special purpose. Its purpose is educational, and its ruins are object lessons for the student of the prehistory of our country.

We are accustomed to regard the Indians of the United States as a race of wanderers, living in temporary habitations made of skin or bark. The Indians are supposed to live by hunting or fishing and to eke out their food by the cultivation of maize or Indian corn, beans, and a few vegetables. While this is true of some Indians, it does not hold for all, for there were many different kinds of Indians inhabiting what is now the United States when Columbus landed at San Salvador. There were highly civilized members of this race in Central America and Mexico—the Mayas and Aztecs. The lofty Cordilleras of South America were the homes of other civilized peoples, as the Incas. The culture of these Indians was characteristic, its origin autochthonous. The American Continent is supposed to have been originally peopled from the Old World, largely across Bering Strait.

In the southwestern part of the United States there are Indians who live in houses made of stone or sun-dried bricks. The antiquity of this mode of life in that region can not be questioned; it dates back to pre-Columbian times. These houses are not isolated from each other, but crowded together so that their walls adjoin and are often several stories high, the approach to the several stories being by ladders.

Such a community house is called a pueblo, and the Indians who dwell in these habitations are called Pueblo Indians, the name being derived from the Spanish term, meaning village. Many pueblos still survive in the States of New Mexico and Arizona, the least modified of which are the seven villages of the Hopi, situated not far from the Grand Canyon National Park.
From the car windows of the Santa Fe Railroad the traveler can see several of these pueblos, including Santo Domingo, San Felipe, Sandia, Isleta, and Laguna. As pueblo houses are made of stone or of sun-dried bricks, their walls are durable; ruins of them remain for a long time, and one who journeys along the river valleys away from the railroad may see throughout the southwestern part of the United States numbers of deserted pueblos in ruins, some of which are simply piles of stone; others have well-made walls projecting above the ground.

Stone ruins of pueblos are also found on the tops of isolated plateaus called mesas in the Southwest, from their Spanish name meaning tables. The depressions have been worn down by the rains of centuries which have eroded deep gorges called canyons, often extending for many miles, showing on their sides alternating layers of rock of different colors and degrees of hardness. When softer layers of rock occur below the harder in the sides of these mesas, there are worn caverns often 50 feet high and several hundred feet long.

The Mesa Verde, or Green Mesa, is so called from the juniper and piñon trees which, growing upon it, impart to it a verdant tone. This mesa is 15 miles long by 8 miles wide. Rising abruptly from the valley on the north side, its top slopes gradually southward to the high cliff bordering the valley of the Mancos on the south. Into this valley open a number of small, high-walled canyons through which occasionally, in times of heavy rain, raging torrents of water flow into the Mancos. In the shelter of the sides of these small canyons are some of the best-preserved cliff-dwellings in America.

In prehistoric times a large human population sought a home in these cliff-dwellings, for protection of themselves and their property. They obtained their livelihood by agriculture on the forbidding tops of the mesa, cultivating scanty farms, which yielded them a small crop of corn.

Life must have been hard in this arid country when the Mesa Verde communities flourished in the sides of these sandstone cliffs. Game was scarce and hunting arduous. The Mancos yielded a few fish. The earth contributed berries and nuts. At that time as at present water was found only in sequestered places near the heads of canyons; but notwithstanding these difficulties the inhabitants cultivated and harvested corn, which they ground on flat stones called metates, and baked their bread on a stone griddle. They boiled their meat in well-made pattern vessels, some of which were artistically decorated. Their life was hard, but so confidently did they believe that they were dependent upon the gods to make the rain fall and the corn grow that they worshipped the sun as the father of all and the earth as the mother who brought them all their material blessings.

They possessed no written language and could record their thoughts only by a few symbols which they painted on their earthenware jars or scratched in the form of picture-writings on the sides of the cliffs adjacent to their habitations.

As their sense of beauty was keen, their art, though primitive, was true; rarely realistic, generally symbolic. Their decoration of cotton fabrics and ceramic work might be called beautiful, even when judged by our own standards. They fashioned axes, spear-points, and rude tools of stone; they wove sandals and made attractive basketry.
They were not content with rude buildings, and had long outgrown caves and earth-lodges that satisfied as dwellings the less advanced Indians farther north and south of them. For their habitations they shaped stones into regular forms, ornamenting them with designs, and laid them one on another. Their masonry resisted the destructive forces of centuries of rain and snow beating upon them.

When the ancestors of the Mesa Verde cliff-dwellers first sought natural caves in these precipitous cliffs for their shelter, they were not in such a high sociological condition as when they left them. They availed themselves of these places not only for shelter from the winter storms and the summer sun, but also from wild animals and human enemies. Sallying forth from them, they made warfare upon all their enemies. In order to render their aerie homes accessible, they cut foot and hand holes in the rocky walls and constructed trails along the top of the talus at the foot of the cliffs. They evidently entered some of their rooms by means of notched sticks or ladders. Hand in hand with the growth of their architectural skill they developed other crafts and arts.

The buildings constructed by early colonists, the remote ancestors of the cliff-dwellers, were isolated earth-lodges, pit-dwellings whose floors were sunken below the surface and walled with mud or rude balls of clay laid up like bricks. The roof was made of plastered logs, with a vent to give the smoke free egress as it rose from a central fireplace in the floor. The only evidence of stone masonry in the dwellings was slabs set on edge, forming bins for food storage.

Such a style of dwelling was not very unlike a Navaho hogan or a Pawnee earth-lodge; it was not a true pueblo.

Earth Lodge A, not far from the termination of the road to Square Tower House gives an idea of the character of one of the pit-houses built by the first settlers in Mesa Verde. It is typical of hundreds of others that dot the top of the plateau, now visible only as low mounds, hidden by a dense growth of juniper that is believed to be of comparatively modern growth.

The arrangement of houses in a cliff-dwelling of the size of Cliff Palace is characteristic, and is intimately associated with the distribution of the social divisions of its former inhabitants.

The population was composed of a number of units, possibly clans, each of which had its more or less distinct social organization, as indicated in the arrangement of the rooms. The rooms occupied by a clan were not necessarily connected, although generally neighboring rooms were distinguished from one another by their uses. Thus, each clan had its men's room, which is ceremonially called the "kiva." Here the men of the clan practically lived, engaged in their occupations. Each clan had also one or more rooms, which may be styled the living rooms, and other inclosures for granaries. The corn was ground into meal in another room containing the metate set in a stone bin or trough. Sometimes the rooms had fireplaces, although these were generally in the plazas or on the housetops. All these different rooms, taken together, constituted the houses that belonged to one clan.

The conviction that each kiva denotes a distinct social unit, as a clan or a family, is supported by a general similarity in the masonry of the kiva walls and that of adjacent houses ascribed to the same clan. From the number of these rooms it would appear that there were at least 23 social units or clans in Cliff Palace. The kivas were the rooms where the men spent most of the time devoted to ceremo-
nies, councils, and other gatherings. In the social conditions prevalent at Cliff Palace the religious fraternity was limited to the men of the clan.

Apparently there is no uniformity in the distribution of the kivas. As it was prescribed that these rooms should be subterranean, the greatest number were placed in front of the rectangular buildings, where it was easiest to construct them. But when necessary these structures were built far back in the cave and inclosed by a double wall, the intervals between whose sections were filled with earth or rubble to raise it to the level of the kiva roof. In that way they were artificially made subterranean, as their beliefs required.

**PHYSICAL FEATURES OF THE MESA VERDE.**

Antiquities are not the only attractions in the Mesa Verde National Park. Its natural beauties should not be overlooked. In winter it is wholly inaccessible on account of the deep snows; in some months it is dry and parched, but in June and July, when rains come, vegetation is in full bloom, the plants flower, the grass grows high in the glades, the trees put on their bright new garments of green. The Mesa Verde is attractive in all seasons of the year and filled with interest for those who love the grandeur and picturesqueness of mountain scenery.

"The Mesa Verde region," writes Arthur Chapman, "has many attractions besides its ruins. It is a land of weird beauty. The canyons which seam the mesa, all of which lead toward the distant Mancos River, are, in many cases, replicas of the Grand Canyon of the Colorado. While the summer days are warm, the nights are cool, and the visitor should bring plenty of wraps besides the clothing and shoes necessary for the work of climbing around among the trails. Little horseback riding can be done.

"It is a country for active foot work, just as it was in the days of the cliff-dwellers themselves. But when one has spent a few days among the cedars and jack pines of the Mesa Verde, well named 'Green Table' by the Spaniards of early days, he becomes an enthusiast and will be found among those who return again and again to this most unique of national parks to study its mysteries and its beauties from all angles."

The highest part of the Mesa Verde National Park is Park Point, 8,575 feet above sea level, while Point Lookout, the most prominent point on the Mesa Verde, has an elevation of 8,428 feet above sea level. The northern edge of the mesa terminates in a precipitous bluff, averaging 2,000 feet above the Montezuma Valley. The general slope of the surface is to the south, and as the main road to the ruins meanders back and forth in heading each smaller canyon, many times approaching the very brink of the great northern fault line, tremendous expanses of diversified terrain are brought into view, first in Colorado and Utah, then in Arizona and New Mexico.

To the north and west, the great Montezuma Valley, dotted with artificial lakes and fertile fields, appears as from an airplane flying from 2,000 to 2,500 feet above, with the Rico Mountains and Lone Cone of Colorado, and the La Sals, the Blues, and Bears Ears of Utah dominating the distant horizon, in some directions over 115 miles distant.

Southward, numerous deep canyons in which the more important cliff dwellings are found, subdivide the Mesa Verde into many long,
narrow tonguelike mesas. The dark purplish canyon of the Mancos River is visible in the middle foreground, and beyond, above the jagged outline of the Mesa to the south, the Navaho Reservation, surrounded by the deep-blue Carrisos of Arizona and the Luka Chukas and Tunichas of New Mexico. In the midst of this great mountain-inclosed sandy plain, which seen from the Mesa resembles a great inland sea surrounded by dark forbidding mountains, rises Ship Rock (45 miles distant), a great jagged shaft of igneous rock, 1,604 feet high, which appears for all the world like a great "wind-jammer" under full sail. Toward evening, the illusion is perfect.

The new entrance road ascends the Mesa Verde south and east of Point Lookout, joining the Old Road which ascends the north slope of Point Lookout, at the head of the Morefield Canyon, where Phone Box No. 4 is located. The Old Road, little used because of extreme grades and single travel width, is undergoing reconstruction, since it provides an easier and much shorter route to the crest of the Mesa. This road will necessarily be closed to tourists until the work is completed.

The Knife Edge Entrance Road, of which the Old Road forms the first link, will probably be completed by July 1, 1923. From Phone Box No. 4, this road follows to the south around Lone Cone, thence around the north slope of the Mesa at an approximate height of 1,800 feet above the Montezuma Valley, to the head of Prater Canyon and westward to Phone Box No. 3, where it joins with the Morefield-Prater detour road. Until the work is completed on the Knife Edge Road from Phone Box No. 4 to Phone Box No. 3, all visitors must use the longer and less scenic Morefield-Prater detour.

Although there are hundreds of cliff dwellings within the Mesa Verde National Park, the more important are located in Rock, Long, Wickiup, Navaho, Spruce, Soda, Moccasin, and tributary canyons. Surface ruins of a different type are widely distributed over the narrow mesas separating the numerous canyons. A vast area surrounding the park contains more or less important ruins of these early inhabitants, most important and easiest of access from the park being the Aztec Ruin and Chaco Canyon National Monuments, New Mexico, the Yucca House National Monument, Colorado, and the Hovenweep National Monument, Colorado-Utah.

ADMINISTRATION.

Mesa Verde National Park is under the exclusive control of the National Park Service of the Department of the Interior, which is authorized to prescribe such rules and regulations and to establish such service as it may deem necessary for the care and management of the park and for the preservation from injury or spoliation of the ruins and other relics of primitive man within the limits of the reservation.

The National Park Service is represented in the actual administration of the park by a superintendent, who is assisted in the protection of its natural and historic features by a number of park rangers and guides. Mr. Jesse L. Nusbaum is superintendent of Mesa Verde National Park. His post-office address is Mancos, Colo.

During the season visitors will be provided with competent, authorized rangers or guides, without cost, to accompany them from Spruce Tree Camp to the various ruins, and visitors will not be permitted to visit the ruins unless so accompanied.

The park season is May 15 to November 1.
MESA VERDE NATIONAL PARK.

HOW TO REACH THE PARK.

RAILROAD INFORMATION.

Mesa Verde National Park as a destination.—During summer season, round-trip excursion tickets at reduced fares are sold at—

- Alamosa, Colo.
- Colorado Springs, Colo.
- Denver, Colo.
- Glenwood Springs, Colo.
- Grand Junction, Colo.
- Manitou, Colo.
- Montrose, Colo.
- Ogden, Utah.
- Ouray, Colo.
- Pagosa Springs, Colo.
- Pueblo, Colo.
- Salida, Colo.
- Salt Lake City, Utah.
- Santa Fe, N. Mex.

Also at practically all stations in the States east and south of Colorado and west of Utah to Mancos, Colo., a station on the Denver & Rio Grande Western Railroad system, and to Mesa Verde National Park as a destination via Mancos and the automobile service operating between Mancos and the park. Passengers traveling through Denver, Colorado Springs, or Pueblo en route to the park have choice of varying fares via different routes for going and return journeys between Denver, Colorado Springs, or Pueblo and Mancos, among which are the following:

- Via Salida, Gunnison, Montrose, and Telluride.
- Via Walsenburg, Alamosa, and Durango.
- Via Salida, Glenwood Springs, Grand Junction, and Telluride.
- Via Salida, Alamosa, and Durango.

Mesa Verde National Park as a side trip.—Passengers wishing to visit Mesa Verde National Park as a side trip in connection with journeys to other destinations will find stop-over privileges available on round-trip excursion tickets and may make side trips to the park from Denver, Colorado Springs, Pueblo, Grand Junction, or Montrose. Stop-overs on one-way tickets are allowed at Grand Junction and Montrose to permit passengers to make the Mesa Verde side trip from those stations. Holders of excursion tickets reading via the Denver & Rio Grande Western Railroad between Denver, Colorado Springs, or Pueblo and Salt Lake City or Ogden, in either direction, have option of traveling between Salida and Grand Junction via Glenwood Springs or via Gunnison, and have choice, at varying fares, of the following side-trip routes to the park and return:

**For westbound passengers.**

- From Montrose or Grand Junction to the park and return, via Telluride in each direction.
- From Montrose or Grand Junction to the park and return, going via Telluride, returning via Durango, Silverton, and Ouray (stage trip between Silverton and Ouray included); or the reverse.
- From Pueblo or Salida via Alamosa and Durango to the park, returning via Telluride to Montrose.

**For eastbound passengers.**

- From Montrose or Grand Junction to the park and return, via Telluride in each direction.
- From Montrose or Grand Junction to the park and return, going via Telluride, returning via Durango, Silverton, and Ouray (stage trip between Silverton and Ouray included); or the reverse.
- From Montrose via Telluride to the park, returning via Durango and Alamosa to Salida or Pueblo.
**Note.**—The following schedules, subject to change, correspond with trips to and from Mesa Verde National Park, referred to in preceding paragraphs, entitled: "Mesa Verde as a Destination," and "Mesa Verde as a Side Trip." All trains daily except as noted on following pages.
### MESA VERDE NATIONAL PARK.

#### Schedule No. 1.

From Denver and Colorado Springs, going via Salida, Gunnison, Montrose, and Telluride, returning via Durango, Alamosa, and Walsenburg.

<table>
<thead>
<tr>
<th>Schedule</th>
<th>From</th>
<th>To</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Denver</td>
<td>1st day</td>
<td>8:15 a.m.</td>
</tr>
<tr>
<td>1</td>
<td>Colorado Springs</td>
<td>1st day</td>
<td>10:55 a.m.</td>
</tr>
<tr>
<td>1</td>
<td>Pueblo</td>
<td>2d day</td>
<td>12:20 p.m.</td>
</tr>
<tr>
<td>1</td>
<td>Salida</td>
<td>1st day</td>
<td>4:00 p.m.</td>
</tr>
</tbody>
</table>

Lv. Denver, 1st day, 8:15 a.m.
Lv. Colorado Springs, 1st day, 10:55 a.m.
Lv. Pueblo, 2d day, 12:20 p.m.
Ar. Salida, 1st day, 4:00 p.m.

Gr

Lv. Denver, 1st day, 7:10 p.m.
Lv. Colorado Springs, 1st day, 9:55 p.m.
Lv. Pueblo, 2d day, 12:01 a.m.
Ar. Salida, 2d day, 8:55 a.m.

Occupy sleeping car until 6 a.m.)
Lv. Salida, 2d day, 6:00 a.m.
(Marshall Pass, Black Canon of the Gunnison.)
Ar. Montrose, 2d day, 2:05 p.m.
Lv. Montrose, 2d day, 2:25 p.m.
Ar. Telluride, 2d day, 6:55 p.m.
Lv. Telluride, 2d day, 7:15 a.m.
(Ophir Loop, Cathedral Spires, Trout Lake, Lizard Head Peak.)
Ar. Alamosa, 2d day, 8:10 p.m.
Lv. Alamosa, 2d day, 8:45 a.m.
(Sleeping car Alamosa to Denver.)
Ar. Pueblo, 3d day, 7:45 a.m.
Ar. Colorado Springs, 3d day, 7:58 a.m.
Ar. Denver, 3d day, 7:59 a.m.

### Schedule No. 2.

From Denver and Colorado Springs, going via Walsenburg, Alamosa, and Durango, returning via Telluride, Montrose, Gunnison, and Salida.

<table>
<thead>
<tr>
<th>Schedule</th>
<th>From</th>
<th>To</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Denver</td>
<td>1st day</td>
<td>7:10 p.m.</td>
</tr>
<tr>
<td>2</td>
<td>Colorado Springs</td>
<td>1st day</td>
<td>9:55 p.m.</td>
</tr>
<tr>
<td>2</td>
<td>Pueblo</td>
<td>2d day</td>
<td>11:25 a.m.</td>
</tr>
<tr>
<td>2</td>
<td>Alamosa</td>
<td>2d day</td>
<td>7:00 a.m.</td>
</tr>
<tr>
<td>2</td>
<td>Telluride</td>
<td>2d day</td>
<td>5:35 p.m.</td>
</tr>
<tr>
<td>2</td>
<td>Durango</td>
<td>2d day</td>
<td>8:50 a.m.</td>
</tr>
<tr>
<td>2</td>
<td>Montrose</td>
<td>2d day</td>
<td>11:25 a.m.</td>
</tr>
<tr>
<td>2</td>
<td>Alamosa</td>
<td>2d day</td>
<td>2:15 p.m.</td>
</tr>
<tr>
<td>2</td>
<td>Spruce Tree Camp</td>
<td>2d day</td>
<td>5:30 p.m.</td>
</tr>
</tbody>
</table>

Lv. Denver, 1st day, 7:10 p.m.
Lv. Colorado Springs, 1st day, 9:55 p.m.
Lv. Pueblo, 2d day, 11:25 a.m.
Ar. Alamosa, 2d day, 7:00 a.m.
Lv. Alamosa, 2d day, 11:25 a.m.
Lv. Durango, 2d day, 5:35 p.m.
Ar. Montrose, 2d day, 8:50 a.m.
Lv. Montrose, 2d day, 11:25 a.m.
Ar. Alamosa, 2d day, 11:25 a.m.
Lv. Alamosa, 2d day, 2:15 p.m.
Ar. Spruce Tree Camp, 2d day, 5:30 p.m.
(Mesa Verde National Park.)

Trips to various ruins as desired. See arrangement suggested in Schedule No. 1.

### Schedule No. 3.


<table>
<thead>
<tr>
<th>Schedule</th>
<th>From</th>
<th>To</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Denver</td>
<td>1st day</td>
<td>8:15 a.m.</td>
</tr>
<tr>
<td>3</td>
<td>Colorado Springs</td>
<td>1st day</td>
<td>10:55 a.m.</td>
</tr>
<tr>
<td>3</td>
<td>Pueblo</td>
<td>1st day</td>
<td>12:20 p.m.</td>
</tr>
<tr>
<td>3</td>
<td>Salida</td>
<td>1st day</td>
<td>4:10 p.m.</td>
</tr>
</tbody>
</table>

Lv. Denver, 1st day, 8:15 a.m.
Lv. Colorado Springs, 1st day, 10:55 a.m.
Lv. Pueblo, 1st day, 12:20 p.m.
Ar. Salida, 1st day, 4:10 p.m.

(Royal Gorge by daylight.)

Lv. Denver, 1st day, 7:10 p.m.
Lv. Colorado Springs, 1st day, 9:55 p.m.
Lv. Pueblo, 1st day, 12:20 p.m.
Ar. Salida, 1st day, 4:10 p.m.

(Tennessee Pass—Eagle River Canon—Colorado River Cañon.)

Lv. Salida, 1st day, 4:10 p.m.

Ar. Glenwood Springs, 1st day, 10:18 p.m.
Ar. Grand Junction, 2d day, 1:05 p.m.
Lv. Grand Junction, 2d day, 9:55 a.m.
Ar. Montrose, 2d day, 11:20 a.m.
Lv. Montrose, 2d day, 1:00 p.m.
Ar. Alamosa, 2d day, 9:30 a.m.
Lv. Salida, 2d day, 11:40 a.m.
Ar. Pueblo, 2d day, 7:45 a.m.
Ar. Colorado Springs, 2d day, 7:58 a.m.
Ar. Denver, 2d day, 7:59 a.m.

### Schedule No. 4.


<table>
<thead>
<tr>
<th>Schedule</th>
<th>From</th>
<th>To</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Denver</td>
<td>1st day</td>
<td>7:10 p.m.</td>
</tr>
<tr>
<td>4</td>
<td>Colorado Springs</td>
<td>1st day</td>
<td>9:55 p.m.</td>
</tr>
<tr>
<td>4</td>
<td>Pueblo</td>
<td>1st day</td>
<td>11:50 a.m.</td>
</tr>
</tbody>
</table>

Lv. Denver, 1st day, 7:10 p.m.
Lv. Colorado Springs, 1st day, 9:55 p.m.
Lv. Pueblo, 1st day, 11:50 a.m.

(Royal Gorge.)

Lv. Montrose, 6th day, 2:20 p.m.
Ar. Grand Junction, 6th day, 5:35 p.m.
Lv. Grand Junction, 6th day, 7:05 p.m.
(Sleeping car Grand Junction to Denver.)

Lv. Glenwood Springs, 6th day, 10:30 a.m.
Lv. Salida, 7th day, 5:05 a.m.
Ar. Pueblo, 7th day, 8:30 a.m.
Ar. Colorado Springs, 7th day, 10:05 a.m.
Ar. Denver, 7th day, 12:45 p.m.

1 Schedules subject to change without notice.
MESA VERDE NATIONAL PARK.

Schedule No. 5.

From Denver and Colorado Springs, going via Salida, Gunnison, Montrose, and Telluride, returning via Durango, Alamosa, and Salida.

Lv. Denver.............. 1st day. 7.10 p. m. | Lv. Alamosa............... 7th day. 7.50 a. m.
Lv. Colorado Springs..... 1st day. 9.55 p. m. | Ar. Salida............... 7th day. 12.05 p. m.
Lv. Pueblo.............. 2d day. 12.01 a. m. | Lv. Salida............... 7th day. 12.45 p. m.
Ar. Salida.............. 2d day. 3.55 a. m. | (Royal Gorge.)
(Occupy sleeping car until 6.00 a. m.)
Lv. Salida............... 2d day. 0.00 a. m. | Ar. Pueblo............... 7th day. 4.10 p. m.
(Follow Schedule No. 1 to Mesa Verde National Park and to Alamosa.)

1 Daily except Sunday.

Schedule No. 6.

From Grand Junction or Montrose, via Telluride in each direction.

Lv. Grand Junction........ 1st day. 9.35 a. m. | Lv. Mancos............... 4th day. 11.25 a. m.
Ar. Montrose.............. 1st day. 12.40 p. m. | (Lizard Head Peak, Trout Lake, Cathedral Spires, Ophir Loop.)
Lv. Montrose.............. 1st day. 2.25 p. m. | Ar. Telluride............... 4th day. 6.00 p. m.
(Follow Schedule No. 1 to Mesa Verde National Park.)
Lv. Spruce Tree Camp....... 4th day. 8.00 a. m. | Lv. Telluride............... 5th day. 7.45 a. m.
(Automobile.)
Ar. Mancos............... 4th day. 11.00 a. m. | Ar. Montrose............... 5th day. 12.20 p. m.
Ar. Durango............... 4th day. 4.35 p. m. | Lv. Montrose............... 5th day. 2.20 p. m.
Ar. Grand Junction......... 6th day. 5.55 p. m.

Schedule No. 7.

From Grand Junction or Montrose, going via Telluride, returning via Durango, Silverton, and Ouray (stage trip between Silverton and Ouray included).

Lv. Grand Junction........ 1st day. 9.35 a. m. | Lv. Durango................ 4th day. 5.50 p. m.
Ar. Montrose.............. 1st day. 12.40 p. m. | (Cañon of the Rio de las Animas.)
Lv. Montrose.............. 1st day. 2.25 p. m. | Ar. Silverton............... 4th day. 8.35 p. m.
(Follow Schedule No. 1 to Mesa Verde National Park.)
Lv. Spruce Tree Camp....... 4th day. 8.00 a. m. | Lv. Silverton............... 5th day. 7.00 a. m.
(Automobile.)
Ar. Mancos............... 4th day. 11.00 a. m. | (Via Circle Route stage line.)
Ar. Durango............... 4th day. 4.35 p. m. | Ar. Ouray.................. 6th day. 11.00 a. m.
Ar. Ouray.................. 6th day. 10.05 a. m.
Ar. Montrose............... 6th day. 12.20 p. m.
Lv. Montrose............... 6th day. 2.20 p. m.
Ar. Grand Junction......... 6th day. 5.55 p. m.

Schedule No. 8.

From Grand Junction or Montrose, going via Ouray, Silverton (stage trip between Ouray and Silverton included), and Durango, returning via Telluride.

Lv. Grand Junction........ 1st day. 9.35 a. m. | Ar. Durango................ 3d day. 8.45 a. m.
Ar. Montrose.............. 1st day. 12.40 p. m. | Lv. Durango................ 3d day. 8.50 p. m.
Lv. Montrose.............. 1st day. 2.25 p. m. | (Follow Schedule No. 2 to Mesa Verde National Park and to Montrose.)
Ar. Ouray.................. 1st day. 4.40 p. m.
Lv. Ouray.................. 1st day. 7.00 a. m.
(Via Circle Route stage line.)
Ar. Silverton.............. 2d day. 11.00 a. m.
Lv. Silverton.............. 2d day. 6.20 a. m.
(Ar. Grand Junction.......... 6th day. 6.30 a. m.
(Cañon of the Rio de las Animas.)

Scenic Approaches to Mesa Verde.

The lines of the Denver & Rio Grande Western Railroad traverse some of the most magnificent scenery of the Rocky Mountain region, and this fact gives the journey to Mesa Verde National Park a double value for the tourist. The railroad offers several routes and combinations of routes, which enable the passenger to vary his journey—going one way and returning another, taking advantage of side trips,
stops at points of interest en route, etc. By means of this choice of routes he may ride through two great gorges with walls nearly 3,000 feet in height and along the rim of another gorge nearly 3,000 feet deep, and he may cross three passes the altitudes of which exceed 10,000 feet. The gorges are the Royal Gorge in the Grand Canyon of the Arkansas, where the width of the chasm at the base is but 30 feet and the railroad engineers found it necessary to swing a steel bridge parallel with the stream in order to secure a foothold for the track; the Black Canyon of the Gunnison, with its wonderful Curecanti Needle and beautiful Chipeta Falls; and Toltec Gorge of Los Pinos River, where may be seen the monument to President Garfield erected in 1881. The three passes are Marshall Pass, the Great Continental Divide (altitude 10,856 feet); Lizard Head Pass (altitude 10,250 feet), with the peak of the same name in the background; and Cumbres Pass (altitude 10,015 feet), one of the approaches to which is Toltec Gorge. However, the deep canyons and high passes to be seen and enjoyed on the railroad trip to the Mesa Verde are only a few of the journey’s attractive features. There is, in fact, but little of the landscape presented that is not replete with interest. If when passing through the fertile valleys a commonplace foreground should momentarily appear, there are always present the towering mountains, either near or distant, to lend grandeur to the picture.

In one of these valleys the United States Reclamation Service’s Uncompahgre project for irrigation may be seen. Further southward the railroad passes through the valleys of the Uncompahgre, San Miguel, and Dolores Rivers. For many miles after leaving Montrose there are visible on the left the great, jagged Sawtooth Mountains, while beyond Ridgway, the magnificent Sneffels Range, dominated by the majestic Mount Sneffels, near the center of the group, presents such a series of snowy heights, unbroken by vegetation, as is found nowhere else in the Colorado-Utah Rockies. There is scenery everywhere along the line, and the train schedules for this part of the journey are so arranged that during the summer season everything may be seen by daylight. En route via Telluride, passengers remain over night in that picturesque mining town, and, leaving early next morning, the beautiful Cathedral Spires and Ophir Loop are traversed. En route via Durango, the metropolis of southwestern Colorado, a night is spent in that city. If desired, at Ridgway a side trip may be made to the mountain town of Ouray and over the scenic Ouray Stage Line; and at Durango a side trip may be made up the beautiful Canyon of the Animas to Silverton.

The above enumeration comprises some of the main features of the Denver & Rio Grande Western regular “Around the Circle” tour, which is the route customarily used in making the trip to Mesa Verde National Park. If desired, however, what is termed the “Big Circle” trip may be made, using that portion of the standard gauge line which lies between Salida and Grand Junction and between Grand Junction and Montrose. On this journey westward, after passing through the Royal Gorge, the train turns northward from Salida, passes through Brown’s Canyon and beside the Collegiate Range (Mounts Princeton, Yale, and Harvard), over Tennessee Pass (altitude 10,240 feet), between the castellated walls of Eagle River Canyon with mines perched upon their sides, and down the Canyon of the Colorado (one of Colorado’s largest streams) to Glenwood Hot Springs, the famous
resort in the heart of the Rockies; then through the fruit-growing districts of the Colorado River Valley to Grand Junction, whence,

after a night's rest, the journey is resumed eastward to Montrose, where the regular "Circle" trip southward is followed.
MESA VERDE NATIONAL PARK.

MESA VERDE AND OTHER NATIONAL PARKS.

From many sections trips may be planned to include visits to two or more of the following national parks in the Rocky Mountain region: Rocky Mountain, Mesa Verde, Yellowstone, Glacier.

DETAILED INFORMATION ABOUT TRAVEL.

For further information regarding railroad fares, services, etc., apply to railroad ticket agents, or address F. A. Wadleigh, passenger traffic manager, Denver & Rio Grande Western Railroad, Denver, Colo.

TRANSPORTATION AND CAMPS IN THE PARK.

The road to the Mesa Verde National Park is open during the season to both horse-drawn vehicles and automobiles, and may be reached from a point on the Mancos-Cortez Road, about 6 miles from Mancos and 12 miles from Cortez.

From the Mancos-Cortez Highway to Phone Box No. 4, at the head of Morefield Canyon, the road winds back and forth over the steep piñon and juniper covered eastern talus of the Mesa Verde, unfolding as one attains greater heights magnificent vistas of the fertile Mancos Valley, nestled at the foot of the sharp, rugged snow-clad La Plata Mountains.

From Phone Box No. 4 the Prater-Morefield detour road leads down Morefield Canyon past a windmill and well on right (water for radiators only, not for human consumption), crosses the Morefield-Prater saddle, and ascends the west side of Prater Canyon, attaining the rim again at Phone Box No. 3, a distance of 10 miles compared to 3½ miles by the more scenic Knife Edge Road between these points. The latter road will not be open to traffic before July 1, 1923. From Phone Box No. 3 to Far View House the distance is 9 miles, and it is 4½ miles farther to Spruce Tree Camp, Park Headquarters.

Parties entering the park by automobile should see that their gas tanks and radiators are filled (extra water desirable), and that they have sufficient oil in crank case, or in reserve, when they pass through the near-by towns of Mancos, Cortez, or Dolores. See that your brakes are in good shape. On long grades select gear suitable for holding car, brake against compression, and save your brake linings. Grades average 8 per cent. The roads are perfectly safe and sane; the driver who does not care for his car and heed warnings is not.

Provisions for campers are obtainable at reasonable prices in any of the near-by towns. Gas and oil can be had at Spruce Tree Camp. Telegrams sent prepaid to Mancos will be phoned to addressee at the camp. Post-office address for parties within the park should be Mancos, Colo., care of either superintendent or Spruce Tree Camp, Mesa Verde National Park.
MESA VERDE NATIONAL PARK.

RANGER AND GUIDE SERVICE TO RUINS.

Every day during the season private motorists congregate at the Camp Fire Circle at 8 a. m. and 1 p. m. sharp for the trips by car to the various ruins. Rangers and guides are assigned for the purpose of conducting you to and through the ruins, explaining the salient features thereof, answering your reasonable questions and assisting you on the trails. This service is gratis, and tipping rangers or guides is prohibited. Parties arriving late will be assigned rangers and guides at 10.30 a. m. and 3.30 p. m. Because of the large number of visitors, no deviation can be made from this schedule.

TRAIL TRIPS.

Visitors who view the Mesa Verde from the automobile roads gain but an inkling of the weird beauty and surprises which this area holds for the more adventurous. Trail or hiking trips along the rim rock bordering the deep canyons lead to spectacular ruins not seen from any of the roads.

The large Wetherill Mesa and Rock Springs groups of ruins can be reached only by trail. Likewise, the ruins of the Mancos Canyon, perched on presumably inaccessible cliffs, hundreds of feet above the bed of the river, or the Holmes Tower, Sandal House, and Double Walled Tower on the floor of the valley, are reached only by trail.

Each turn and twist of the trail reveals entrancing vistas of rugged canyons, sheer cliffs, great caves, hidden ruins, distant mountains, tree-covered mesas or open glades. Saddle-horse and pack-animal service is available for those who wish to leave the "beaten path" of the automobile and "rough it" in the land unchanged since the days of the cliff dweller.

FREE PUBLIC CAMP GROUNDS.

The public camp grounds are located under the piñons and juniper cedars on the rim of Spruce Canyon, one of the most beautiful canyons of the park, and but a few hundred feet from Spruce Tree Camp, Park Headquarters. Individual party camp sites have been cleared on both sides of the loop road serving it, insuring a certain amount of privacy. Fine cool water from the old cliff-dweller spring at the head of Spruce Tree Canyon is piped to several convenient locations on the grounds, toilet facilities have been installed, and firewood is provided without cost to campers. A ranger is detailed for duty on the camp grounds. Leave your camp site clean when you leave the park.

PARK MUSEUM.

Through funds generously provided by a park visitor the first section of the Mesa Verde Park Museum is now under construction. Temporarily the park collections from the various ruins are exhibited in the Administration Building. They are for your study, information, and enlightenment.
Evening camp fires at the Camp Fire Circle are an established feature at Spruce Tree Camp. These gatherings are informal, and entertainment is largely provided by the visitors themselves. Rangers are present to answer questions that may arise in discussion. During the period in which active field archaeological work is being carried on, Dr. J. Walter Fewkes, of the Smithsonian Institution, usually gives his justly famous camp fire talks. During the past year visiting archaeologists, lecturers, writers, and entertainers at different times "did their bit," to the great enjoyment of those congregated about the camp fire.

**PUBLIC UTILITIES.**

**SPRUCE TREE CAMP.**

Oddie L. Jeep, manager, address, Mancos, Colo., conducts the only camp accommodations on the park. Comfortable floored tents and cottages are situated among the piñons and juniper cedars, overlooking Spruce, Spruce Tree, and Navaho Canyons. Meals are served in the main building, where curios, photographs, and soft drinks may be procured. The camp is but a few minutes walk from Spruce Tree Ruin and Park Headquarters.

**MESA VERDE TRANSPORTATION CO.**

C. R. Beers, manager, address, Mancos, Colo., conducts an automobile service from Mancos to the park and the ruins. Seven-passenger automobiles are used exclusively. Cars meet all trains at Mancos, Colo. Ticket, to include auto service to park and ruins, can be purchased with rail ticket if requested.

Time consumed in each direction, Mancos to Spruce Tree Camp, three hours.

Baggage should only be checked to Mancos, Colo. The auto stage company will carry not to exceed 25 pounds free allowance. Persons having baggage in excess of 25 pounds can make special arrangements at Mancos, Colo., for its transportation to Mesa Verde National Park and return.

Storage charges on baggage at Mancos station will be waived while passengers are making tour of the park.

**MESA VERDE PACK & SADDLE CO.**

A. B. Hardin, manager, address, Mancos, Colo., conducts a general pack and saddle service to little-known ruins and parts of the park far from the roads. Saddle animals are available for one-day trips to Mancos River, Spring House, Casa Colorado, Inaccessible House, and Poole Canyon. New equipment and sturdy sure-footed western horses raised in the mountains and accustomed to trail work are used in this service.

Rates for public utilities will be found on page 64.
The largest cliff ruin, known as Cliff Palace, was discovered by Richard and Alfred Wetherill while hunting lost cattle one December day in 1888. Coming to the edge of a small canyon they first caught sight of a village under the overhanging cliff on the opposite side, placed like a picture in its rocky frame. In their enthusiasm they
thought it was a city. With the same enthusiasm the expectant visitors of to-day involuntarily express their pleasure and surprise as the spectacle breaks on their astonished vision.

Later these two men explored this ruin and gave it the name Cliff Palace, an unfortunate designation, for it is in no respect a palace, but a community house, containing over 200 dwelling rooms, former abodes of families, and 22 sacred rooms or kivas. They also discovered other community dwellings, one of which was called Spruce Tree House, from a large spruce tree, since cut down, growing in front of it. This had 8 sacred rooms and probably housed 300 inhabitants.

The finding of these two ruins did not complete the discoveries of ancient buildings in the Mesa Verde; many other ruins were found by the Wetherills and others which need not now be mentioned. They mark the oldest and most congested region of the park, but the whole number of ancient habitations reaches into the hundreds.

Only a few of the different types of ruins that have already been excavated and repaired and are now accessible to the visitor are considered herein. Many others await the spade of the archaeologist and the road maker, being now only accessible on foot or horseback by means of difficult trails. The following archaeological description of various ruins are by Dr. J. Walter Fewkes, Chief of the Bureau of American Ethnology, under whose direction the excavation and repair of these notable ruins has been accomplished, with the exception of Balcony House, which was done by Jesse L. Nusbaum.

**SPRUCE TREE HOUSE.**

**GENERAL DESCRIPTION.**

The total length of Spruce Tree House is 216 feet, its width at the widest part 89 feet. There were counted in the Spruce Tree House 114 rooms, the majority of which were secular, and 8 ceremonial chambers or kivas. Spruce Tree House was in places three stories high; the third-story rooms had no artificial roof, but the wall of the cave served that purpose. Several rooms, the walls of which are now two stories high, formerly had a third story above the second, but their walls have now fallen, leaving as the only indication of their former union with the cave lines destitute of smoke on the top of the cavern. Of the 114 rooms, at least 14 were uninhabited, being used as storage and mortuary chambers. If we eliminate these from the total number of rooms we have 100 inclosures which might have been dwellings. Allowing 4 inhabitants for each of these 100 rooms would give about 400 persons as an aboriginal population of Spruce Tree House. But it is probable that this estimate should be reduced, as not all the 100 rooms were inhabited.

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1 On the plan of Spruce Tree House, from a survey by Mr. S. G. Morley, the third story is indicated by crosshatching, the second by parallel lines, and the first has no markings.
at the same time, there being evidence that several of them had occupants long after others were deserted. Approximately, Spruce

Tree House had a population not far from 350 people, or about 100 more than that of Walpi, one of the best-known Hopi pueblos.
CLASSIFICATION OF ROOMS.

SECULAR ROOMS.

The rooms of Spruce Tree House are topographically divided into two groups by a court or street, running east and west, situated about midway between the north and south ends of the village. This street is entered from the plaza in which kiva G is situated and has many fireplaces. In the northern division of the ruin there are five kivas and in the southern section three. The majority of the secular rooms, comprising the oldest, are situated in the northern division. The row of rooms bordering the street on the south end of the northern division contains some of the best walls in Spruce Tree House. The roofs and floors are well preserved, and the walls show the best masonry in the whole ruin. The varied coloring of the plaster indicates that it was done at different times. It may well have been that this was the most aristocratic part of the village; certainly the houses here were constructed by the most clever masons and are now the best preserved. Their roofs and floors are in as fine condition to-day as when the place was inhabited. They have lateral doorways and well-made windows opening into the street. Entrances through upper or second-floor doorways appear in some cases to have been accomplished by means of foot holes in the side of the wall, which are now visible. Notched logs were placed along the street to be used by visitors. The rooms are dark and were probably sleeping chambers, the fireplaces in the courts indicating that much of the cooking was done in the adjacent plaza and court.

The rooms of Spruce Tree House are well furnished with doorways, both lateral and vertical, the latter being very few in number. Some of the lateral openings are rectangular in form, slightly narrowed above; others are T-shaped. Many examples of the latter have the lower part filled in with masonry, reducing them to rectangular openings, and a few are entirely walled in, shutting off all entrances, a circumstance that would indicate that these rooms were abandoned, while yet others were inhabited.

The sills of these doors which have a solid stone threshold are often much worn, showing frequent use. The lintels are commonly slabs of stone, but they may likewise be made of split sticks set in mortar. Similar sticks are likewise sometimes let into the side of the doorways. The tops of many of the openings were partially arched over with mud, making a semicircular jamb that holds in place the flat stone which closed the opening. To secure in place the stone slab which closed the entrance the inhabitant used a stick that was held in place by eyelets made of osiers, one on each side. One of these doors was restored in its original form.

The second tier of rooms of plaza D, shown by the projecting ends of rafters, had a balcony, a small section of which can be seen at the north end. Long poles formerly extended above these projecting beams, which they connected, and these poles supported wattlings and cedar bark covered with adobe. Along this platform the dwellers in rooms in the second story passed from doorway to doorway, and by it they were enabled to enter their own rooms.

There is a numerical relationship between the population and the number of kivas which has not yet been satisfactorily worked out.
The evidences are that there were two balconies, one above another, at this point, but all traces of the floor of the highest of these except a few ends of rafters have disappeared. In a wall under this balcony, as was not uncommon in some cliff dwellings, there is found a stone projecting from its face, which served as a step to reach the lowest doorway.

In one corner of a room back of plaza H there is a stone box or closet, the sides of which are formed of slabs set upright, on the upper edges of which is luted in place a cover having a square hole cut in one corner. This stone is not level, but inclines slightly outward from the wall. The use of this closet is unknown. A somewhat similar stone bin occurs in the northeast corner of plaza C, but, unlike it, has no covering slab, and is situated in the corner of a plaza instead of a room. It seems natural to regard it as a corn bin. The meaning of the stone inclosure in one corner of plaza G is unknown.

**CIRCULAR ROOM.**

The most interesting room in the south division is circular and stands at the right of the visitor as he follows the street from kiva G to the rear of the cave. It would at first sight seem from the shape of this room and the number and arrangement of holes in its wall that it was a bastion for defense. But these orifices admit of an explanation quite different from portholes. They may be the openings through which the sun priest watched the setting sun to determine the times for ceremonies. This room is somewhat isolated from the others and is furnished with rectangular openings like windows in front and rear; but, as these openings are small and not easily passable, the probability is that the entrance was from above.

The ground outline of another circular room, which may possibly have been a tower, the existence of which escaped all previous observers, was traced at the south end of the ruin just beyond kiva H. From its position this room was believed to be a bastion for defense, so placed as to command the entrance to the village from its south end. The broken wall and fireplace of this room were repaired.

**WARRIORS’ ROOM.**

One of the problematical rooms of Spruce Tree House lies in the northern division, back of plaza C, in the row east of its kiva. This small room has a lateral doorway, the sill—as are others—somewhat raised above the level of the plaza. The remarkable feature of this room is a banquette extending around its three sides, the remaining side, or that opposite the door, being the cliff or rear of the cave. This room resembles in certain particulars one in Cliff Palace, described by Nordenskiöld, but differs from his description in certain important details of structure. Its construction is so exceptional that one could hardly call it a living room, and it is too elaborately made for a storage chamber. There is a shallow vertical passageway in the south corner, near where the banquette joins the side of the cliff, which has some unknown meaning. Nordenskiöld, in discussing a similar room in the Cliff Palace, appears “to regard it as marking the transition to the rectangular estufa of the Moki Indians.” As he points out, it differs “from the estufas in the absence of the charac-
teristic passage and also of the six niches. Furthermore, they often contain several stories, and in every respect but the form resemble the rectangular rooms." It rarely happens that secular rooms are built above kivas; in fact, such a condition would be ceremonially an impossibility. The meeting places of warriors are exceptional in this regard, and from this and other reasons this chamber is considered to be a room of the warriors or an assembly place for councils. This room adjoins that in which three child "mummies" are said to have been found and from which the author exhumed the skeleton of an adult.

DETAILS OF CONSTRUCTION.

In the middle of plaza C there is a rude ware vase set in the floor with opening level with the surface. This is probably the cavity where offerings were ceremonially deposited and corresponds in a general way with shrines in the middle of the Hopi plazas, one of the best known of which is the so-called sipapu used in the Walpi snake dance. The rooms at the south end of the ruin follow a ledge slightly elevated above the general level. Here are also small inclosures or bins, constructed of stone, that remind one of storage cysts. Below these on the horizontal surface of the cliffs there are broad depressions worn in the rock by rubbing stone weapons, like axes, and narrow grooves showing the impression of pointed implements. Here are also several good fireplaces, from the smoke of which the top of the cave has been considerably blackened. It was necessary to repair one of the storage cysts, which had been almost completely destroyed.

It was customary for the inhabitants of the cliff houses to lay an irregular wall, without mortar, on the top of other walls. One of the high walls at the south end of the ruin has a collection of these stones, the use of which has led to considerable speculation. These rude walls serve as wind or snow breaks.

CEREMONIAL ROOMS OR KIVAS.

Spruce Tree House has eight kivas. These kivas are circular in form, subterranean in position, and in structure essentially alike. Their structure is characteristic of those elsewhere on the Mesa Verde, in the McElmo, San Juan, and Chaco Canyons. All Spruce Tree House kivas lie in front of dwelling, except one (A), which fills an interval between the back wall of the cliff and buildings before it. On this and other accounts this kiva is believed to be one of the oldest in the village. As this kiva has double walls, evidently those first built did not please the builders. The present and latest constructed kiva is circular and lies inside an older one, which has an oval shape. Both of these structures were excavated and put in thorough repair.

CONSTRUCTION OF A KIVA.

Each kiva has two sections, a lower and an upper. The lower part has walls about 3 feet high, ending in a bank, on which at intervals there are six square buttresses which separate corresponding recesses and support the beams of the roof. Between these buttresses are left recesses, formed by the outside wall, which rise to the height
of the roof. This lower wall, like all others, was plastered and shows marks of fire or smoke but not of a general conflagration. In the lower wall were found niches or small cubby-holes a few inches square, which were receptacles for paint, meal, or small objects. Each buttress has a peg on its top projecting into the kiva just under the roof; and in the surface of the banquette in kiva C there is set a small, roughly made bowl, the rim of which is on the level of the bank.

The floor of the kiva is generally plastered, but in kiva E the solid surface of the rock was cut down on the west side several inches as a part of the floor. In the floor is a circular pit, F, filled with wood ashes, which served as the fireplace. About halfway from this depression to the opposite wall of the room there is in the floor of every kiva a small hole, G, lined with a neck of a roughly made bowl. This opening, which is barely large enough to insert the hand, represents symbolically the ceremonial entrance to the underworld and is the same as that which the Hopi called the sipapÁ. Around this hole, marking the place on the floor where altars were erected in ancient ceremonies, were performed archaic rites, and through it the priests addressed the gods of the underworld, even believing that they could communicate with the dead. The nature of ceremonies about the symbolic entrance to the underworld will be found by consulting the descriptions of the Hopi kiva rites elsewhere published by the author. All sipapÁs and other features of structure of the kiva floors were put in good condition.

Between the kiva fireplace and the adjacent side of the room there is set in the floor an upright slab of stone, e, about 2 feet high, which is often replaced by a rectangular wall. The side of the kiva facing this screen has a rectangular opening that communicates with a horizontal passageway and opens into a vertical flue, the external orifice of which is in the plaza or outside the outer wall of the kiva. The upright stone or wall served as a deflector, which distributed the fresh air supplied to the kiva from outside the room by the flue above mentioned. This air entered the kiva through the vertical and horizontal passageway and was deflected by the upright stone around the room on the level of the floor. The smoke rose from the fireplace and passed out the kiva through the hatch in the middle of the roof, fresh air being supplied to take the place of the heated air and smoke by the ventilator.

There are other openings in the circular wall of the kiva at the level of the floor, some of which are large enough to admit the body, and communicate with tunnels ample in size for passage. In the floor of one of these there are steps, and by means of these passageways one could pass under the plaza from the kiva to an adjacent room. A good illustration of these passageways, as shown in the accompanying plan, is found in e, kiva E. A person can enter a vertical passage in the corner of room 35 and descend by use of steps to a short tunnel that takes him through the opening into the kiva. There is a similar passageway which opens externally in the middle of plaza C. It can not be that the openings and passages above described were the main entrances, but rather private doorways for priests on ceremonial or other occasions; the chief entrance was probably by means of a ladder through a hatchway in the middle of the room.
The structure of the kiva A is most remarkable, differing from the other seven ceremonial rooms of the Spruce Tree House. When first seen it had the appearance of one kiva within another, the first or larger being of oblong shape with remnants of a banquette showing two pedestals on the north side; the second or inner kiva, being almost circular, was apparently the last occupied. In constructing the circular wall of that last mentioned the builders apparently utilized the southwest part of the larger room and those pedestals or buttresses that were situated in this section. Kiva A, as previously stated, is the only one built close under the overhanging rim rock, and is the only one with buildings in front of it. The roof of this kiva apparently formed a kind of plaza surrounded on three sides by houses, the wall of the cave forming the fourth.

There were never, apparently, any rooms above this kiva, but on one side a room of the second story is supported by a column, an exceptional feature in pueblo construction. The foundations of this wall are two logs curved to conform with the wall, and under the middle of these is the stone pillar.

**CLIFF PALACE.**

**GENERAL DESCRIPTION.**

Cliff Palace lies in an eastern spur of Cliff Canyon, under the roof of an enormous cave which arches 50 or 100 feet above it. The floor of this cavern is elevated several hundred feet above the bottom of the canyon. The entrance faces the west, looking across the canyon to the opposite side, in full view of a great promontory, on top of which stands Sun Temple. The floor of the recess in which Cliff Palace is built is practically covered with buildings, some of which, especially those at each end, extend beyond the shelter of the cave roof. The total length of the Cliff Palace is approximately 300 feet.

The underside of the roof of rock arching over Cliff Palace is comparatively smooth, exhibiting horizontal cleavage and plane surfaces. A break in this cleavage extends approximately north and south, forming a ledge a few feet in breadth. On its edge the ancients constructed a long wall, thus making a passageway between it and the solid cliff. Although now inaccessible from the ruin below, in ancient times this passageway could have been entered from the roof of one of the houses (66) through a doorway which is still visible. Similar ledge rooms are common features in Mesa Verde ruins.

The floor of the cave in which Cliff Palace was built had practically one level, determined no doubt by a layer of comparatively hard rock, which resisted erosion more successfully than the softer strata above it. This floor was strewn with great angular bowlders that in the process of formation of the cave had fallen from the roof. These were too large to be moved by primitive man and must have presented to the ancient builders uninviting foundations upon which to erect their structures. The spaces between these rocks were better suited for their purposes. These were filled with smaller stones that could be removed, leaving cavities which could be utilized for the construction of subterranean rooms. The upper surfaces of the large rocks, even those which are angular, served as foundations for houses above ground and determined the levels of the plazas.
MESA VERDE NATIONAL PARK.

From the bases of these rocks, which formed the outer edge of the level cave floor, a talus extended down the canyon side to the bottom. The rooms forming the front of the ancient village were constructed in this talus, and as their site was sloping they were necessarily situated at lower levels on terraces bounded by retaining walls which are marked features in this part of Cliff Palace. At least three different terraces indicating as many levels are recognized. These levels are indicated by the rows of kivas, or ceremonial rooms, which skirt the southern and middle sections of the ancient village. At the southern end, where the talus is less precipitous and where, on account of the absence of a cave roof, the fallen rocks are smaller, the terrace with its subterranean rooms is on the level of the floor of the cave, having the same height as the foundations built thereon. At the western extremity the buildings were erected on the tops of huge rocks fallen from the roof of the cave. Here the talus is narrow or wanting, and no rooms were constructed in front of these rocks. Thus the terraces rooms on the lowest level are found along the middle section of the cave, where the floor is highest and where the great fallen rocks still remain in sheltered places.

Fortunately, the configuration of the cliffs above the ruins makes it possible to get a fine bird's-eye view of Cliff Palace from the rim of the mesa. Views obtained from the heads of the two trails are most striking and should be enjoyed before closer examination and detailed study of the rooms in Cliff Palace. To obtain the best general view of the whole ruin from the front, one may cross the canyon and climb a promontory whence Cliff Palace appears to be set among trees in a rocky frame, the lower side being the precipice beneath and the upper the roof above.

ENTRANCE.

Deep under the débris which covered the lower terrace of Cliff Palace there was brought to light by excavation an ancient way, hitherto unknown, which leads by a gradual slope to the center of the village. This pathway extends parallel with the high front wall of kiva O, and, passing to a large rock in which foot rests were cut, enters Cliff Palace through a narrow court between high walls. From this court ascent to the level of the cave floor was accomplished by means of a ladder, which could be drawn in when danger necessitated. The floor of the main entrance was hardened adobe, the outer edge of which was held by a roughly laid retaining wall resting at the lower end on logs still well preserved. This main entrance may have led formerly to the village spring in the canyon below, now dry, and along it no doubt in ancient times toiled the weary women with jars of water on their heads.

A similar recess in the front wall is found in the pueblo Far View House, in the cliff dwelling Square Tower House, and in the specialized religious building, Sun Temple.

GROUND PLAN OF CLIFF PALACE.

An examination of the correct ground plan of Cliff Palace shows that the houses were arranged in a crescent, the northern extension of rooms corresponding roughly to one point. The curve of the village
follows, generally speaking, that of the rear of the cave in which it was constructed. There is little regularity in the arrangement of the rooms, which, as a rule, are not crowded together; most of the subterranean chambers are situated on terraces in front of the secular rooms. There is one passageway that may be designated a street; this is bordered by high walls over which a passer-by could not look. No open space of considerable size is destitute of a ceremonial chamber, and the largest court contains five of these rooms. It is not possible to count the exact number of rooms that Cliff Palace formerly

![CLIFF PALACE MESA VERDE NATIONAL PARK COLORADO](image)

had, as many upper stories have fallen and a considerable number of terraced rooms along the front are indicated only by fragments of walls. Roughly speaking, 200 is a fair estimate.

It is instructive to note that although Cliff Palace is about three times as large as Spruce Tree House, judging from ceremonial chambers, it has no more than double the number of secular rooms.\(^3\)

**QUARTERS OF CLIFF PALACE.**

In order to facilitate the description of Cliff Palace it is here arbitrarily divided into certain quarters or sections. The front entrance,

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\(^3\) This is explained on the theory that Cliff Palace is more ancient than Spruce Tree House, the kiva being the older rooms and probably more strictly limited to the use of clans, while at Spruce Tree House they are more in the nature of fraternity rooms, the membership of the priesthood occupying them being drawn from several clans.
being situated about midway of the length of the village, is naturally a point of division of the ruin into halves.

Four different regions may be distinguished in the ruin, two north of a line drawn from the front entrance to the rear of the cave and two south of that line. While structurally there appear to be no essential differences in these quarters, they present certain characteristic archaeological features which are worthy of consideration.

The part of Cliff Palace extending northward from the main entrance to the point where the ruin turns westward lies in the deepest part of the cave and may be called the "Old Quarter." Its northern end is formed by a castellated building three stories high, constructed of the finest masonry and perched on a huge fallen rock. This building contains several rooms, story above story, the uppermost reaching to the roof of the cave. It may be called the "Speaker Chief's House," from a banquette on one side overlooking the whole southern end of the ruin.

The extension of Cliff Palace westward from the Speaker Chief's House to the end of the ruin may be designated the "Northern Quarter." About 50 feet beyond the extreme western end stands above ground a solitary building, or ceremonial room, of singular construction. The part of the ruin from the main entrance to the Round Tower contains five ceremonial rooms huddled together. Their roofs and the intervening spaces formerly constituted the most extensive plaza in the village, and it seems appropriate to call this the "Plaza Quarter."

The part of the ruin from the Round Tower to the extreme southern end is divided into halves by the Square Tower, a four-storied room with painted walls.

To recapitulate, there are here recognized in Cliff Palace the following quarters:
1. Northern Quarter, from Speaker Chief's House to west end.
2. Old Quarter, from Speaker Chief's House to entrance to ruin.
3. Plaza Quarter, from village entrance to Round Tower.
4. Tower Quarter, from Round Tower to southern end.

NORTHERN QUARTER.

This quarter contains four ceremonial rooms and accompanying secular inclosures. On the western end it has a room fitted up with four corn-grinding bins (metatakis), a second room with one metate and two cooking rooms.

This quarter is built on two levels, the lower, adjoining the Old Quarter, having fine masonry, composed of well-dressed building stones. The higher level has two kivas, the more western of which shows in its floor the most extensive example of excavation in solid rock known in Cliff Palace. For more than two-thirds of its area the floor is here cut down on one side about 2 feet. The whole western section was considerably mutilated and was covered with small building stones and débris when the excavation and repair work began. This is obscurely indicated on previously published ground plans in which its rooms are not accurately represented.
OLD QUARTER.

The region northward from the main entrance of the Cliff Palace, including the lofty castellated building called "Speaker Chief's House," may be known as the Old Quarter. This contains many secular rooms, some of which are round and others rectangular, and three fine ceremonial rooms, one of which is of a type rare in cliff dwellings. The Old Quarter falls naturally into two regions, the Speaker Chief's House and the section adjoining the main entrance. A street extending north and south divides this quarter into a front and a rear section.

It seems probable that the Old Quarter was inhabited by the oldest and most influential clans of the pueblo. The masonry of the Speaker Chief's building is not only the finest in Cliff Palace but compares well with that laid by white masons. The walls throughout were built of hewn stones, ground plane, carefully laid, and smoothly plastered. The main building was erected on the inclined face of a very high, angular rock, unfortunately cracked, by which the foundations are raised above neighboring buildings and terraces. The castellated part extends to the roof of the cave and is three stories high. On the north side the wall of this part is curved, but on the south side there is a banquette or platform to which one mounts by a single step. The whole central and southern parts of Cliff Palace lie in full sight of this platform, and we may suppose that a speaker chief stood upon it every morning when he announced the events of the day.

In addition to the three-storied castellated building there are included in the Old Quarter four fine ceremonial rooms and two circular rooms that lie deep in the cave.

The southern part of the Old Quarter, that adjoining the entrance to the village, has one ceremonial room and several secular inclosures. The "street" lies almost wholly in this section.

PLAZA QUARTER.

Almost the whole of this quarter is occupied by a large open space containing five kivas. These subterranean rooms are so close to one another and are so arranged that their roofs must have formed an almost level plaza, which was the central and largest open place of Cliff Palace. Two kivas, I and H, on the lower terraces likewise belong to this quarter. In addition to the subterranean rooms on the upper level there extends from it into the Old Quarter a court into which opens the "street." It may well be supposed that the Plaza Quarter was of the most frequented breathing places in this cliff dwelling when inhabited. Here we find a broad, open place fitted for ceremonial dances, into which opened the only large court and street of the village. The main entrance to Cliff Palace was situated at its northwest corner. It was well protected in all seasons of the year by the overhanging roof of the cave and the massive walls surrounding it on three sides. The outlook from its western side across Cliff Canyon is one of the finest. Situated midway between the two ends of the village, near the center of population, the Plaza Quarter must have been a much frequented place when Cliff Palace was inhabited, and may well be called the chief quarter.
MESA VERDE NATIONAL PARK.

TOWER QUARTER.

The Round Tower section includes the ceremonial rooms E to G and the secular buildings 13 to 33. Of the former F and G lie at lower levels in front of the foundations of the Round Tower. Kiva J is situated on a high level, and E is built near the cliff in the rear of the village.

The most striking architectural feature of this quarter is, of course, the picturesque Round Tower, a symmetrical structure perched on top of a huge rock. The use of this tower is unknown, but we can hardly suppose so important a building was built in this commanding position for purely secular purposes.

The southern end of Cliff Palace, including rooms 1 and 10 and the subterranean chambers A to D, is somewhat exposed to the weather and therefore much worn. Kivas A to C lie in the open in front of the rooms and outside the rim of the roof. The walls of Kiva D, among the finest known in cliff dwellings, are painted yellow and have the superficial plastering well preserved. The Square Tower (11) is four stories high and has fine mural decorations in white and red on the inner walls of the third story. The whole northwest angle of this tower had to be rebuilt to support the walls of this story.

CEREMONIAL ROOMS.

The majority of the ceremonial rooms in Cliff Palace are accompanied by rectangular chambers, but one of the former, situated about 50 feet from the western end, has no rooms near it. The ceremonial rooms naturally fall into two types: (1) Subterranean kivas having banquettes around their sides, separated by roof supports called pedestals; (2) kivas destitute of banquettes or pedestals, probably roofless, their roofs being replaced by high surrounding walls. Twenty ceremonial rooms have been referred to the first type; two or three to the second. The isolated kiva resembles in many particulars the other examples of the second type. The shape of the kivas varies from circular to square, with rounded corners. Their architecture varies somewhat, and their depth is not uniform. The walls are well constructed and generally show signs of plastering often blackened with smoke. One of the kivas is painted yellow; the lower part of another is red, with triangular decorations on the upper border.

Similar decorations occur likewise on Kiva A of Spruce Tree House and on the inner walls of the third story of the Square Tower. They are found also on the walls of Fire Temple, and Painted Kiva House.

KIVAS OF THE FIRST TYPE.

The Cliff Palace kivas, provided with pedestals or roof supports, furnish examples of some of the finest masonry in prehistoric buildings of our Southwest. Owing to their subterranean position it was often necessary for the builders to excavate the floors in solid rock, and the curves of the sides were obtained in many instances by removing projecting ends of huge rocks. The number of pedestals varies in different kivas. In the majority there are six of these roof
supports; the kiva in the Speaker Chief's section has eight, others four, and one has but two. The number of banquettes necessarily varies with the number of pedestals; one called the altar banquet is commonly larger than the remainder. This large shelf may be the place where ceremonial paraphernalia were placed. In most cases it is situated in the same side as the air shaft or ventilator. Every kiva of the first type has a ventilator, fire hole, and deflector.

Although these structures are represented in every kiva, the configuration of the walls of many kivas made it difficult to introduce the ventilator on the same side or in the same form. In one case the passage turns at right angles before it joins the vertical so-called ventilator. In another instance this vertical passage is situated like a chimney at one angle of the outside wall, and in still another it opens through a roof support.

Deflectors in Cliff Palace kivas have four modifications: (1) A slab of stone placed upright; (2) a low stone wall; (3) a curved wall joining the wall of the kiva on each side of the lateral entrance into the ventilator; (4) a row of upright sticks having twigs woven between them, the whole being covered and hidden with clay mortar. Thus, all varieties of deflectors discovered in Mesa Verde ruins are represented at Cliff Palace.

Every kiva of the first type has a fireplace near the center of the room, which is generally found to be packed solid with wood ashes. In some cases the sides are rimmed with flat stones, one stone smaller than the rest, sometimes projecting slightly above the level of the floor. The symbolic opening (sipapu) in the floor is not found in all Cliff Palace kivas. It is rarely absent; usually it is situated slightly to one side of the middle of the floor. In one kiva the opening is double and in another room this hole lies near the wall. Even when necessary to drill into solid rock the ancients did not hesitate to make this ceremonial opening, which, in some instances, was lined with a burnt-clay tube. For the reception of small objects diminutive niches were constructed in the walls of almost every kiva, and vases are now found inserted in the banquettes of a few of these chambers.

Each kiva possesses special characters notwithstanding that all the kivas have a general similarity.

**KIVAS OF THE SECOND TYPE.**

There are two, possibly three, ceremonial rooms that show no signs of roof supports or pedestals, no evidences of fireplaces, deflectors or ventilators. It would appear that these rooms were used for the same purpose as kivas of the first type. They have banquettes on the side wall, quite wide at each end, and generally a lateral passageway at the floor level.

The existence of two types of ceremonial rooms in Cliff Palace may indicate a division of the ritual into two distinct parts performed by the summer and the winter people, respectively, a specialization still perpetuated among some modern pueblos. The best example of the second type is kiva R, situated in the Old Quarter of the ruin in the neighborhood of the Speaker Chief's House. No signs of pedestals are to be found, but broad banquettes occupy the northern and southern ends, connected on the other sides by a narrow shelf. In the side walls below the banquettes are several recesses or cubby-holes, and
there is a lateral entrance on the floor level in the southern side which sends off side branches under the banquette, but no indication was discovered of a vertically placed ventilator.

The walls above this kiva were built high, as if to prevent observation by outsiders. There was probably no roof.

Secular Rooms.

Secular rooms in Cliff Palace may be classified as follows: (1) Living rooms; (2) storage rooms; (3) mill rooms; (4) granaries; (5) dark rooms of unknown use; (6) towers, round and square; (7) round rooms not towers. The highest rooms have four stories. There are several of three stories, many of two, but the majority have only one. Walls projecting at right angles to the foundations in front of the ruin on a level below the cave floor indicate that in this part Cliff Palace was terraced, consisting of several-storied houses and terraces at different levels. There is little uniformity in size, shape, or character of the walls of secular rooms. In rare instances they extend to the roof of the cave, a feature sometimes shown by markings or fragments of masonry on the rock surface.

Living Rooms.

Several rooms show such marked evidences that they were inhabited and used as sleeping places that they are called living rooms. One or two of these have each a banquette extending across one side and several have fireplaces in the floor in one corner. The inner walls of these rooms are generally smoothly plastered, sometimes painted. They contain small niches, and in one case pegs on the walls on which blankets or kilts could be hung. These chambers are supposed to have been the sleeping rooms for women and children, and, although not living rooms in one sense, they are the nearest approach to them in Cliff Palace. Much of the daily work—pottery making, cooking, etc.—was done on housetops or in open places adjoining the living rooms.

Mill Rooms.

Several special rooms set apart for mills in which corn was ground were discovered in different quarters of Cliff Palace. These differed from some other rooms only in being smaller. Almost the whole space was occupied by rude stone mills of characteristic forms. These consist of boxes made of slabs of rock set upright, in each of which was placed an inclined stone, the mealstone (\textit{metate}). In front of this, at the bottom of the mill, is a receptacle into which the meal fell after it had been ground by hand by means of a slab of stone called the \textit{mano}. The women or girls who ground the corn knelt on the side of the mill at the top of the \textit{metate} and rubbed the \textit{mano} over the \textit{metate} (mealstone) until the corn between was ground. In one of these mill rooms there were two and in another four of these mills set in a row side by side. The surfaces of the \textit{metates} in this series are graded in roughness, so as to grind the meal finer and finer as it is passed from one to another. The mills were so well preserved that even the fragments of pottery in the angles of the receptacles in which the meal collected after grinding were still in place.
and the upright stones on which the girls braced their feet had not been moved. The brushes with which the meal was brushed into baskets after grinding, had been left in the mills and were still in good condition.

**STORAGE ROOMS.**

The smaller rooms and the back chambers, many of them darkened by their position in the rear of other rooms, were probably used for storage of corn. These diminutive rooms, many having the form of cysts, are carefully built; many are erected on flat rocks, but have doorways. Every crevice and hole in the corners of these granaries was carefully stopped with clay, no doubt to prevent rats or squirrels from entering. The impression prevalent in some places that the inhabitants of Cliff Palace and of other cliff dwellings were of diminutive size is supported by the erroneous belief that these rooms were used as dwellings. If we had visited Cliff Palace when inhabited, we should probably have found in these storage rooms corn on the cob stacked in piles, from which the daily consumption was drawn. The living rooms were often small, but they were unencumbered with furniture or even with food in great quantities and were ample for people of small stature. The cliff dwellers were not pygmies.

**ROUND TOWER AND ROUND ROOMS.**

The most prominent and picturesque building in Cliff Palace is the Round Tower, situated about midway in its length on a high angular rock, which raises it in full view above all the terraces. This tower is not the only round room in the ruin, for there are foundations and walls of two other circular rooms not far from the Speaker Chief's House at the north end of the "street." These are inconspicuous because hidden far back in the cave behind more lofty walls. The Round Tower, formerly two stories high, was entered from the north side. It was little damaged during the centuries elapsing since Cliff Palace was abandoned and needed little repair. The walls show most beautiful examples of aboriginal masonry, perhaps the finest north of Mexico. Almost perfectly symmetrical in form, the stones that compose the walls are skillfully dressed, fitted to one another, and carefully laid. This tower was evidently ceremonial in function, or it may have served as an observatory, for which purpose it is well situated. The presence of small peepholes through which one can look far down the canyon supports the theory that the tower was a lookout, to which theory its resemblance to other towers in the Mesa Verde region likewise contributes.

**SQUARE TOWER.**

This building also is one of the picturesque and prominent structures at the southern end of Cliff Palace. It is four stories high, the walls reaching from the floor to the roof of the cave. The walls of the third story are painted white and red with decorative symbols, as triangles, zigzag lines, and parallel lines, perhaps representing feathers. When work began on this tower the whole northwestern
angle had fallen and the wall of the "painted room" was tottering and in great danger of falling. The repair of this section was dangerous as well as difficult, one whole corner having to be rebuilt from the bottom of an adjacent kiva.

**LEDGE ROOMS.**

A projecting ledge in the cave roof, about 20 feet above the top of the highest wall, served as the foundation of a marginal wall and accompanying rooms. This wall is pierced by doorways, windows, and peepholes. One of the doorways, probably an entrance situated near the northern end, was apparently on the former level of the roof of one of the round rooms of the Old Quarter of the pueblo. The outer surface of the marginal wall is decorated with a white terraced figure, suggesting the white figure overlooking plaza C in Spruce Tree House. The ledge rooms, which occur in several Mesa Verde ruins, were probably used for storage or for protection.

**BALCONY HOUSE.**

Balcony House lies in Soda Canyon about 2½ miles southeast of Spruce Tree Camp, and is reached by a continuation of Cliff Palace Road. It is one of the most picturesque of the accessible ruins in the park and occupies a better position for defense than most of the other ruins on the mesa. A few defenders could have repelled a numerous attacking force. Additional precautions have been taken at the south end of the ruin for the strengthening of its defenses, where the only means of reaching it is through a very narrow cleft. Through this tunnel a man may creep on hands and knees from the cliff dwelling to the south part of the ledge, which affords a footing, with a precipice to the left and the cliff to the right, for about 100 paces. The ledge here terminates in the perpendicular wall of the canyon. The ruined walls of a strong tower, built to cut off approach on this side, may still be traced. At the north end of the ruin the foundation gave the builders considerable trouble, but the difficulties were skillfully overcome. A supporting wall was erected on a lower ledge, to form a stable foundation for the outer wall of the upper rooms, where the higher ledge was too narrow or too rough for building purposes.

South of the rooms fronted by this wall is a small open court, bounded at the back by a few very regular and well-preserved walls, which rise to the roof of the cave. A low thick wall built on the edge of the precipice incloses the outer side of the court. The second story has a balcony along the wall just mentioned. The joists between the two stories project about 2 feet. Long poles lie across the projecting joists parallel with the walls, covered with cedar bast on which is laid dried clay. This balcony was used as a means of communication between the rooms of the upper story and served as a terrace.

Judging from the excellent masonry of Balcony House it is presumed that this ruin is one of the more recent, probably belonging to the same period as Spruce Tree House. Its special features are the remarkable defensive site and the extra works built to increase its in-
accessibility. The well-preserved balcony has given a name to the ruin, but other cliff houses show the same structure. The fund for the excavation and repair of Balcony House was largely furnished by the Colorado Cliff-Dwellers Society.

**SUN TEMPLE.**

**GENERAL DESCRIPTION.**

The cliff houses considered in the preceding pages are habitations. There are also specialized buildings on the Mesa Verde which were never inhabited but were used for other purposes. Two of these are supposed to have been devoted to religious purposes and are known as Sun Temple and Fire Temple.

Sun Temple is situated west of Cliff Palace, across Cliff Canyon on a high cliff at the entrance to Fewkes Canyon. Up to the year 1915 the site of Sun Temple was a mound of earth and stones all showing artificial working or the pecking of primitive stone hammers. This mound had a circular depression in the middle and its surface was covered with trees and bushes. No high walls projected above the ground nor was there any intimation of the size or character of the buried building. It was believed to be a pueblo or communal habitation. Excavation of this mound brought into view one of the most instructive buildings in the park.

Sun Temple is a type of ruin hitherto unknown in the park, and, as was well expressed by a visitor, the building excavated shows the best masonry and is the most mysterious form yet discovered in a region rich in so many prehistoric remains. Although at first there was some doubt as to the use of this building, it was early recognized that it was not constructed for habitation, and it is now believed that it was intended for the performance of rites and ceremonies; the first of its type devoted to religious purposes yet recognized in the Southwest.

"The ruin was purposely constructed in a commanding situation in the neighborhood of large inhabited cliff houses. It sets somewhat back from the edge of the canyon, but near enough to present a marked object from all sides, especially the neighboring mesas. It must have presented an imposing appearance rising on top of a point high above inaccessible, perpendicular cliffs. No better place could have been chosen for a religious building in which the inhabitants of many cliff dwellings could gather and together perform their great ceremonial dramas."

The ground plan of the ruin has the form of the letter D. The building is in two sections, the larger of which, taken separately, is also D-shaped. This is considered the original building. The addition enlarging it is regarded as an annex. The south wall, which is straight and includes both the original building and the annex, is 131.7 feet long. The ruin is 64 feet wide.

There are about 1,000 feet of walls in the whole building. These walls average 4 feet in thickness, and are double, inclosing a central core of rubble and adobe. They are uniformly well made.

The fine masonry, the decorated stones that occur in it, and the unity of plan stamp Sun Temple as the highest example of Mesa Verde architecture.

The walls were constructed of the sandstone of the neighborhood. Many stone hammers and pecking stones were found in the neighborhood.
THE FOSSIL PALM LEAF.

One of the most remarkable features of the structure is a fossil in the corner stone of the southwest corner. Mr. F. H. Knowlton, of the United States National Museum, has identified this as the fossil leaf of a palm tree of the Cretaceous epoch. The figure resembles a symbol of the sun, and the ancient races were sun worshipers. A natural object resembling the sun would powerfully affect their primitive minds.

This emblem is partially surrounded with walls in such a way as to inclose the figure on three sides, leaving the inclosure open on the fourth or west side. There can be no doubt that the walled inclosure was a shrine and the figure in it may be a key to the purpose of the building.

ARCHITECTURAL FEATURES.

There are three circular rooms in Sun Temple which prove their form may be identified as ceremonial in function, technically called kivas. Two of these, free from other rooms, lie in the plaza that occupies the central part of the main building and one is embedded in rooms of the so-called annex. Adjoining the last mentioned, also surrounded by rooms, is a fourth circular chamber which is not a kiva. This room was found to be almost completely filled with spalls or broken stones. Possibly this was the factory where the stones were hewn into shape before they were laid in the walls.

East of Sun Temple, where formerly there was only a mound of stone and earth, there was found the remains of a circular tower. The kiva that is situated in the west section of Sun Temple has a flue attached to the south side, recalling the typical ventilator of a Mesa Verde cliff kiva, and there are indications of the same structure in the two circular chambers in the court. These kivas, however, have no banquettes or pilasters to support a vaulted roof, as no fragments of roof beams were found in the excavations made at Cliff Palace, which may be due to the unfinished character of the building.

Most of the peripheral rooms of Sun Temple open into adjoining rooms, a few into the central court, but none has external openings. Some of the rooms are destitute of lateral entrances, as if it was intended to enter them through a hatch in the roof.

Not only pits indicative of the stone tools by which the stones forming the masonry of Sun Temple were dressed appear on all the rocks used in its construction, but likewise many bear incised symbols. Several of these still remain in the walls of the building; others have been set in cement near the outer wall of the eastern kiva. It is interesting to record that some of the stones of which the walls were constructed were probably quarried on the house top not far from the building, but as the surface of the plateau is now forested the quarries themselves are hidden in accumulated soil and are difficult to discover.

AGE.

Sun Temple is believed to be among the latest constructed of all the aboriginal buildings in the park, probably contemporary with Balcony House, Spruce Tree House, and Cliff Palace.

It is impossible to tell when Sun Temple was begun or how long it took for its construction or when it was deserted. There are indica-
tions that its walls were never completed, and from the amount of fallen stones there can hardly be a doubt that when it was abandoned they had been carried up in some places at least 6 feet above their present level. The top of the wall had been worn down at any rate 6 feet in the interval between the time it was abandoned and the date of my excavation of the mound. No one can tell the length of this interval in years.

We have, however, knowledge of the lapse of time, because the mound had accumulated enough soil on its surface to support growth of large trees. Near the summit of the highest wall in the annex there grew a juniper or red cedar of great antiquity, alive and vigorous when I began work. This tree undoubtedly sprouted after the desertion of the building and grew after a mound had developed from fallen walls. Its roots penetrated into the adjacent rooms and derived nourishment from the soil filling them.

Necessarily when these roots were cut off, thereby killing the tree, I was obliged to fell it, but the stump remains, cut off about a foot above the ground. A section of this tree at that point was found by Mr. Gordon Parker, supervisor of Montezuma National Forest, to have 360 annual rings; its heart is decayed, but its size suggests other rings, and that a few more years can be added to its age. It is not improbable that this tree began to grow on the top of the Sun Temple mound shortly after the year 1540, when Coronado first entered New Mexico, but how great an interval elapsed during which the walls fell to form the mound in which it grew, and how much earlier the foundations of the ruined walls were laid no one can tell. A conservative guess of 250 years is allowable for the interval between construction and the time the cedar began to sprout, thus carrying the antiquity of Sun Temple back to about 1300 A. D.

From absence of data, the relative age of Sun Temple and Cliff Palace is equally obscure, but it is my firm conviction that the former was later, mainly because it showed unmistakable evidences of a higher sociological condition of the builders; but here again we enter a realm of speculation which, while it adds to the mystery of the building, is beyond our knowledge.

THE MYSTERY OF ITS PURPOSE.

Many theories have been advanced to explain the purpose of this structure, but most of these can be eliminated without difficulty. The theory that it was a prison, a Spanish mission, a theater, may be dismissed without serious consideration.

The position of the ruin has led several visitors to suggest that the building was constructed for a fortification or defense against hostile invaders. This theory is not a fanciful one, but, while it might have been constructed in part for this purpose, protection from foes was only a secondary consideration. The care given to its construction, its shape and size, absence of portholes, and height of walls are not such as we would expect in a fort.

There is no good evidence supporting the theory that it was erected to serve as a habitation. The rooms have not a form adapted for any such utilitarian purpose. They are destitute of windows, and it was not intended to plaster their walls, as the incised stones clearly indi-
cate; there are no evidences of fireplaces, no smoked walls, no ashes or charcoal, no metates for grinding corn, no piles of débris, such as are usually formed about a habitation. Few household implements, such as bowls and baskets, were found. There were no burials, no animal bones, remnants of former feasts.

While it is not impossible that it might have been intended to later add an upper story for dwellings, attention may be called to the fact that, although some of the rooms have walls about 12 feet high, they show no evidence of floor beams or holes for their insertion. The lower rooms were too high for dwellings, for a dwelling room over 6 feet from the floor to ceiling is anomalous in cliff houses or pueblos.

UNITY OF CONSTRUCTION.

The argument that appeals most strongly to my mind supporting the theory that Sun Temple was a ceremonial building is the unity shown in its construction. A preconceived plan existed in the mind of the builders before they began work on the main building. Sun Temple was not constructed haphazard nor was its form due to addition of one clan after another, each adding rooms to a preexisting nucleus. There is no indication of patching one building to another, so evident at Cliff Palace and other large cliff dwellings. The construction of the recess in the south wall situated exactly, to an inch, midway in its length shows it was planned from the beginning.

We can hardly believe that one clan could have been numerous enough to construct a house so large and massive. Its walls are too extensive; the work of dressing the stones too great. Those who made it must have belonged to several clans fused together, and if they united for this common work they were in a higher state of sociological development than a loosely connected population of a cliff dwelling.

In primitive society only one purpose could have united the several clans who built such a structure, and this purpose must have been a religious one. This building was constructed for worship, and its size is such that we may practically call it a temple.

On this theory, we can easily interpret one or two facts that otherwise are without significance. The shrine at its southwest corner stone is worthy of notice in this connection. It bears on its floor a symbol resembling the sun, which implies complex ceremonies.

No one doubts that the three massive, circular-walled rooms, two in the main plaza and one in the annex, are religious rooms, and a glance at the ground plan shows they are prominent architectural features. They show from their prominence that whatever theory of the use of Sun Temple we adopt we must not overlook the ceremonial object. The existence of many rooms entered from the roofs and the absence of external doors in all implies secrecy. The mysteries here performed were not open to all—only the initiated could enter.

Comment has already been made on the fact that practically no household implements were found in the rooms, which has been interpreted to mean that the building was never finished. It also signifies that the workmen did not live in or near by during construction; the question is pertinent: Where did they live?
BUILDERS.

On the theory that this building was erected by people from several neighboring cliff dwellings for ceremonies held in common, we may suppose that the builders came daily from their dwellings in Cliff Palace and other houses and returned at night after they had finished work to their homes. The trails down the sides of the cliffs which the workmen used are still to be seen. The place was frequented by many people, but there is no evidence that any one clan dwelt near this mysterious building during its construction.

Other questions arise: Was Sun Temple constructed by an intrusive people of different stock from that of Cliff Palace? Is it the work of a migratory band that entered the region from the valleys surrounding Mesa Verde, or was it built by an alien people not closely allied to those of Cliff Palace, but more like Pueblos of New Mexico? The difference between the architecture of Sun Temple and that of the neighboring cliff dwellings and its similarity in form to some of the ruins in the Chaco Canyon, N. Mex., would seem to lend some support to the theory that the builders were aliens, or culturally different from cliff dwellers.

This theory seems to me untenable, for where did these incoming aliens live while building it? How could they work there un molested?

The argument that cliff dwellers in the neighborhood built Sun Temple and that incoming aliens had nothing to do with its construction seems to me very strong. The architectural differences between it and Cliff Palace are not objections, for the architectural form of Sun Temple may be regarded as a repetition, in the open, of a form of building that developed in a cliff house; the rounded north wall conforms with the rear of a cave and the straight south wall reproduces the front of a cliff dwelling. The recess midway in the south wall of Sun Temple could be likened without forcing the comparison to a similar recess which occurs at the main entrance into Cliff Palace.

Sun Temple was not built by an alien people, but by the cliff dwellers as a specialized building mainly for religious purposes, and, so far as known, is the first of its type recognized in the Mesa Verde area.

FIRE TEMPLE GROUP.

FIRE TEMPLE.

Fire Temple is one of the most remarkable cliff houses in the park, if not in the whole Southwest. It is situated in a shallow cave in the north wall of Fewkes Canyon near the head of the same and can readily be seen from the road along the southwest rim of the canyon. This ruin was formerly called Painted House, but when it was excavated in May, 1920, evidence was obtained that it was a specialized building and not a habitation. The facts brought to light point to the theory that it was consecrated to the fire cult, one of the most ancient forms of worship.

The ruin is rectangular in form, almost completely filling the whole of its shallow cave, and the walls of the rooms extend to the roof. A ground plan shows a central court 50 feet long and about 25 feet broad flanked at each end with massive walled buildings two stories
MESA VERDE NATIONAL PARK. 

The walls of these rooms are well constructed, plastered red and white within and on the side turned to the court. The white plaster is adorned with symbolic figures. No beams were used in the construction of the floors, the lower story having been filled in with fragments of rocks on which was plastered a good adobe floor.

The court or plaza was bounded by a low wall on the south side, the buildings inclosing the east and west ends, where there was a banquette, apparently for spectators. The north side of the court was formed by the solid rocks of the cliff, but on the lower part a narrow masonry wall had been laid up about head high, projecting from the cliff a foot and less on the top. The wall was formerly plastered red below and white above, triangular figures and zigzag marking recalling symbols of lightning on the line of junction of the red and white surfaces.

About the center of the court on a well-hardened adobe floor there is a circular walled fire pit containing an abundance of ashes, and on either side of it are foundations of rectangular rooms.

In the central fire pit fire was kept burning during the elaborate fire dances of the natives, and possibly also a perpetual fire was conserved in this pit from one act of kindling the new fire to another. The function of the rectangular inclosures lying one on each side of the circular inclosures is unknown. The new fire was kindled in the middle of the three rooms of the lowest tier west of the main court. This is a painted room, and on its walls there still remain in fair preservation a row of five symbols of fire, numerous pictures of mountain sheep and other animals.

FIRE TEMPLE HOUSE.

Just west of Fire Temple there is a group of rooms which were evidently habitations, since household utensils were found in them. One of these rooms has in the floor a vertical shaft which opens outside the house walls like a ventilator. The former use of this structure is unknown. Although the Fire Temple was not inhabited, there were undoubtedly dwellings near by.

A hundred feet east of the Fire Temple there are two low caves, one above the other, in which may have lived those who once made use of this sanctuary. The ruin is the Fire Temple House proper, or the habitation of the fire priests and their families. The rooms in the lower cave were fitted for habitation, consisting of two, possibly three, circular ceremonial rooms and a few secular rooms; but the upper cave is destitute of the former. The large rooms of the upper house look like granaries for the storage of provisions, although possibly they also were inhabited. In the rear of the large rooms identified as granaries was found a small room with a well-preserved human skeleton accompanied with mortuary pottery. One of these mortuary offerings is a fine mug made of black and white ware beautifully decorated; a specimen worthy of exhibition with the best in any museum. In the rear of the cave were three well-constructed grinding bins, their metates still in place.

The upper house is now approached from the lower by foot holes in the cliff and a ladder. Evidences of a secondary occupation of one of the kivas in the lower house appear in a wall of crude masonry without mortar, part of a rectangular room built diagonally across
the room. The plastering on the rear walls of the lower house is particularly well preserved. One of the kivas has, in place of a deflector and ventilator shaft, a small rectangular walled inclosure surrounded by a wall, recalling structures on the floor of the kivas of Sun Temple. The meaning of this departure from the prescribed form of ventilator is not apparent.

**OAK TREE HOUSE.**

The ruin formerly called Willow House, but now known as Oak Tree House, lies on the north side of Fewkes Canyon about midway between Fire Temple and the mouth of that canyon.

This ruin lies in a symmetrical cave and has an upper and a lower part, the former now being inaccessible. The two noteworthy features of Oak Tree House are the kivas and the remnant of the wall of a circular room made of sticks plastered with adobe but destitute of stone masonry.

Oak Tree House has seven kivas and may be called a large cliff dwelling. One of the kivas has a semicircular ground plan with a rectangular room on the straight side. There are no pilasters or banquettes in this kiva. The floor of another kiva was almost wholly occupied by a series of grinding bins, indicating a secondary use. The repair work on Oak Tree House has not yet been completed, but a small collection of specimens at one end of the ruin shows the nature of the objects thus far found.

**SUN SET HOUSE.**

Looking across Cliff Canyon from Sun Point one can see the fine ruin called Sun Set House, formerly known as Community House. This ruin, like many other cliff dwellings, has an upper and a lower house, the former being relatively larger than is usually the case. Although Sun Set House is accessible, it has never been excavated, and the same is true of Mummy House and Willow Tree House, two fine ruins in the cliffs under Sun Temple.

**CEDAR TREE TOWER.**

Hidden in the timber about one-half mile east of the Mancos road, and a mile north of Spruce Tree Camp, is a tower and kiva of especial interest. The associating of the two, without dwellings accompanying them, is unique and leads to many conjectures as to their use and purpose.

Granting that the growth of timber was not as high at the time the tower was built, its value as a lookout would be, even then, small; and it does not seem reasonable to suppose that the vast amount of effort required to build it would warrant its restriction to such a limited use. While it may have been used in part for that purpose, this was probably not its prime function. There are other features, such as the hole in the floor, which indicate additional uses, which will be spoken of later.

The masonry is excellent and the massive character of the walls and the beautiful workmanship indicate some important use, for a large amount of labor was expended in the construction of the build-
ings of this group. Some of the stones are so large that it is difficult for one man to handle them. The components are beautifully dressed, especially those which form the rounded corners of the tower on the inner and outer boundaries. The walls of the tower are uniformly 2 feet in width, and at the highest point they still stand to the height of 15 feet.

Directly in front of the tower is a subterranean kiva, connected with it by an underground passage. Although the native rock might have been used by the builders for the walls of the kiva, they were not satisfied with this and lined the whole interior, up to the banquettes, with a wall of fine small slabs, laid up in regular courses. A coating of adobe was spread over the irregular stone floor, and the fireplace is well plastered. The usual ventilating shaft and deflector are present.

There is no sipapu in the kiva, but in the floor of the tower almost in its center is a small opening, which is 4 inches in diameter and 2 inches in depth, and while these dimensions are not the usual ones for this structure in other kivas, there is a possibility that this was a ceremonial opening. No sipapu has hitherto been discovered in a tower, and its existence here and not in the adjacent kiva, which would furnish a much larger space, is worthy of remark.

West of the kiva is a small rectangular room which may have been used for change of ceremonial paraphernalia; it may also have served as a dressing room for the men taking part in the ceremonies. The underground passage connecting the tower and kiva area leads into this room. It is lined with fairly well-made stone walls and slabs of the same material. Huge stone slabs cover the top of the passageway. This room has two fireplaces.

The fact that only a very few potsherds were found in the group would indicate that it was not used as a dwelling. In the timber near the tower are several small groups of mounds, and these may have been associated with it. On these mounds are large numbers of potsherds and chipped bits of stone, and occasionally a stone implement, which would indicate that they are the remains of dwellings.

There are many towers on Mesa Verde, but too few have been sufficiently explored to determine their use and purpose. In some cases we find walls of rooms which indicate dwellings attached to these. In other cases their location would indicate they were lookouts as is the well-known Navaho Tower.

There are many towers in the Mancos Valley and west of Mesa Verde in the walls of the McElmo Canyon and its tributaries that have circular depressions on one side. These depressions probably indicate kivas, showing that they belong to the same type as Cedar Tree Tower.

**SQUARE TOWER HOUSE.**

**GENERAL DESCRIPTION.**

Square Tower House is situated on an eastern spur of Navajo Canyon nearly opposite a great bluff called Echo Cliff. An ancient approach to the ruin was from the canyon rim. It was used by the natives, but is almost impassable for white visitors. Foot holes for ascent and descent had been cut by the Indians in the cliff at a
point south of the ruin which enabled them to reach the level on which the ruin is situated. Along the top of the talus there runs to the ruins a pathway which bifurcates into an upper and a lower branch. The former, hugging the cliff, passes through the "Eye of the Needle"; the latter is lower down on the cliff.

The Square Tower House cave is shallow, its rear perpendicular, with roof slightly overhanging. At the extreme eastern end of the ruin the vertical face of the cliff suddenly turns at right angles, forming an angle in which, high above the main ruin, there still remain walls of rooms. To these rooms, which are tucked away just under the canyon rim, with only their front walls visible, the name Crow's Nest is given. One end of a log, extending from a wall of one of these rooms, rests in a hole cut in the side of the cliff, a well-known method of cliff-house construction.

Some of the rooms in Square Tower were devoted to secular; others to ceremonial purposes. The former have angular corners; the latter are circular. The rectangular rooms were constructed above ground; the circular were subterranean. These walls do not differ radically from those of Spruce Tree House and other cliff dwellings. They have similar windows, door openings, and supports of balconies. There is little difference in the size of the stones used in the masonry at different heights. The absence of a cave recess in the rear of the building is significant, as it allowed the cliff to be used as the back wall of the rooms.

Square Tower House measures about 138 feet from its eastern to its western end. There are no streets or passageways as at Spruce Tree House and Cliff Palace, and no open spaces except in the kiva roofs. The rooms were continuous and compactly constructed. Excepting the spaces above the kivas, their walls are united from one end of the cave to the other.

SECULAR ROOMS.

The foundations of the secular rooms are constructed on two levels, an upper and a lower. These rooms occupy the intervals between the kivas, never in front of them. The wall of the rear rooms is the perpendicular face of the cliff. Balconies indicated by projecting logs are common, and are especially to be seen above the kivas, and in some instances the outside faces of the walls below them show remains of red or white plastering.

THE TOWER.

The tower is, of course, the most conspicuous as well as the most interesting architectural feature of the ruin, being visible for a long distance as one approaches Square Tower House. Its foundation rests on a large bowlder situated in the eastern section of the cave floor. This tower has three walls constructed of masonry; the fourth being the perpendicular rear wall of the cave. The masonry of the tower stands about 35 feet above the foundation, but the foundation bowlder on which it stands increases its height over 5 feet. On a projecting rock on the west side above it is the wall of a small, inaccessible room which may have been used as a lookout or as an eagle house.
The lowest story of the tower is entered from Plaza B, and on the east side there are three openings, situated one over another, indicating the first, second, and third stories, but on the south side of the tower there are only two doorways. The roof of the lowest room is practically intact, showing good workmanship, but about half of its floor is destroyed. The upper walls of the second story room have the original plaster, reddish dado below and white above. Although the third and fourth stories are destitute of floors, they are plastered.

CROW’S NEST.

Walls of four rooms are to be seen high up in the angle of the cliffs above Kiva A. Their front walls, although broken down, were made of well-constructed masonry. The foundation was supported by a beam spanning the angle of the cliff. The room above has a doorway and five small openings through which beams formerly projected. At least three openings, windows or peepholes, were visible. The walls of Crow’s Nest are fairly well made, composed of regular, horizontal masonry, exhibiting the skill and daring of the ancient builders. While the use of these rooms is doubtful, they certainly afford a fine view of the Navajo Canyon, on the spur of which Square Tower House is situated. Possibly these rooms had the same functions as lodge houses or the structure in the cliff above the top of the tower.

KIVAS.

The majority of the kivas of Square Tower House belong to the pure type, distinguished by mural pilasters supporting a vaulted roof. Kiva A, one of the best preserved ceremonial rooms on the Mesa Verde Park, is particularly instructive on account of the good preservation of its roof. Its greatest diameter is 13 feet 6 inches; or, measuring inside the banquettes, 11 feet 1 inch. The interior is well plastered with many layers of alternate black and brown plaster. The pilasters are six in number, one of which is double. Two depressions are visible in the smooth floor, in addition to a fireplace and a sipapu. These suggest ends of a ladder, but no remains of a ladder were found in the room.

Kiva B, the largest ceremonial chamber in Square Tower House, measures 16 feet 9 inches in diameter over all. This kiva is not only one of the best preserved, but also one of the most instructive in Square Tower House, since half of the roof, with the original cribbing, is still in place, extending completely around the periphery. It has six pilasters and as many banquettes. Where the plaster had not fallen it was found to have several layers.

PICTOGRAPHS.

The perpendicular cliff back of Square Tower House has several different forms of incised pictographs. From the fact that these naturally occur on the cliff above the kiva roofs, they may be regarded as connected in some way with a religious symbolism. A few pictographs are also found on stones set in the walls of the rooms.
EARTH LODGE A.

Over 30 remains of small semisubterranean dwellings were found on top of Chapin Mesa. Earth Lodge A, a type of these dwellings, is situated about 50 yards south of the road leading to Square Tower House. Its ground plan is roughly D-shaped, with the straight wall on the south side, where there are two small additional rooms outside of the line of the main room. The maximum length of the structure, including the additions, is 20 feet 21 inches, with a maximum width of 20 feet 6 inches. The earth was excavated to a depth of 2 feet, showing walls covered with abode plastering applied directly to the native earth. No stone was used in the construction of the main room, except at the southeast corner, where some thin slabs were found which may have been set upright in the wall. The plastered wall is 17 inches high, forming a shelf about 16 inches wide. The exact method of roofing could not be determined, but a large number of charred beams 4 to 6 inches in diameter were found in the course of the excavation. With few exceptions these never have fallen and lay radially with the burnt ends to the center of the room. At one point a well-preserved beam impression in the adobe plastering seems to indicate that these logs were placed at an angle with their butts in the undisturbed earth outside of the low wall. There are no post holes or other indications of the presence of vertical supports in the floor, and the superstructure was probably conical, like that of a modern Navajo hogan.

The floor was for the most part well preserved and showed smoothness, due to long use. There are two smoothly plastered pits in the floor, one of which was about half full of ashes.

Projecting into the northwest corner of the room there was a square bin, its sides formed by two large sandstone slabs set on edge. The outer end and floor of this bin was made of adobe; the inner side was open. A shallow niche was cut into the north wall at the inner end of the bin. Nothing was found to indicate the use of this structure, but it seems possible that it served as a grinding bin.

South of the main room, whose outer wall forms their inner wall, there are two small structures made of vertically set slabs of stone, one of which seems to have been used for storage, the other suggesting a vestibule.

FAR VIEW HOUSE, A MESA VERDE PUEBLO.

The archeological investigations of the last few years have shown that the prehistoric people of this plateau erected buildings called pueblos of the same structural character as those in the cliffs, but on top of the mesa. The mounds indicating these buildings take several forms, and as a rule are associated in villages or clusters. Through one of these villages runs the Government road from Mancos to Spruce Tree House. This village is known by the name Mummy Lake mounds, or the Moki Lake group, and is situated 4 1/2 miles north of Spruce Tree House. Mummy Lake is a prehistoric reservoir; its name is not appropriate, for no mummies have ever been found in its neighborhood and it contains water only a portion of the year. South of this reservoir there are 16 mounds indicating as many ruined pueblos, varying in size, but in no case showing walls standing above
ground marking the shape or character of the buried houses. Far View mound is situated on the southeast margin of this village, and at the beginning of the work upon it differed little from the other 15.

The results of three months' excavation of this mound transformed it into a rectangular pueblo 113 feet long by 100 feet wide, resembling buildings long known at Aztec, N. Mex., and on the Chaco Canyon far to the south.

A comparison of houses built in cliffs throughout the world indicates that there is no special uniformity or distinguishing feature in them. The cliff houses of China partake of the characteristics of Chinese buildings; those of Greece of the habitations of the Greeks. The excavation of Far View House shows that it is structurally the same as Spruce Tree House. A cliff house in a Mesa Verde canyon is a pueblo built in a cave. We may say, therefore, that probably buildings on the Mesa Verde, whether in cliffs or on mesa tops, are homogeneous, a conclusion long believed but demonstrated two years ago by the uncovering of Far View House. This pueblo is called Far View House because of its magnificent outlook. From its top, looking southward, the vision includes portions of four States; looking directly south are the hazy mountains of New Mexico, with the wonderful pinnacle known as Ship Rock, from its resemblance to a ship under full sail. On the western horizon are the Blue Mountains of Utah. To the southwest, silhouetted against the sky, rises Sleeping Ute, a name equally appropriate on account of its resemblance to the prostrate figure of an Indian. In the immediate foreground is a dense forest of cedars and other trees, to which Mesa Verde owes its name.

A half mile before he approaches Mummy Lake the visitor can see, from the Government road, the walls of Far View House with a background of cedars situated in the middle of a sagebrush clearing, and in its immediate neighborhood heaps of stone and soil. These overgrown mounds with depressions in the center represent the appearance of Far View House, the only one of the group yet excavated. The rooms were almost filled with accumulations of débris. Whence came this débris? The quantity is too large to be ascribed wholly to fallen walls, for if we regard this catastrophe as the only source, it would be necessary to suppose the walls were once built to a height beyond all proportion to their lateral dimensions. Moreover, an examination of this débris shows that it is stratified by alternating layers of sand and fallen walls or adobe mortar and stone. This sand did not come from the building; it must have blown in from the surrounding plain, and anyone who is familiar with the sandstorms of that region can appreciate the depth of sand which might accumulate in a short time. Its abundance implies that the surface of the land in the neighborhood was devoid of trees, sagebrush, or other vegetable growth.

The conclusion is logical that if there were no sagebrushes the farms cultivated by the aborigines were near by. From indistinct evidences we can see traces of ditches leading from Mummy Lake through which the farmers may have irrigated their lands either directly or secondarily from smaller reservoirs near the mounds. The native springs are far down the sides of the canyon, and it is not improbable that the potable water or that used for cooking, masonry, and other purposes may have been drawn from these reservoirs,
which, together with irrigating canals, through the lapse of time have been clogged by accumulations of sand.

The external features of Far View House are apparent as we approach its walls; mounting to the top of the highest wall we can best observe the general plan. This pueblo is rectangular in shape, consisting of concentrated rooms with a court surrounded by a wall annexed to the south side. On its southeast corner, a little less than 100 feet away, lies the cemetery, from which have been taken skeletons of the dead with their offerings of food bowls and other objects such as was the custom of these people to deposit in the graves of their dead.

At its highest point on the north wall the pueblo had three stories, but on the southern side there was but a single story. This building was terraced, one tier of rooms above another. In the corner of the interior of the highest room may still be seen the ancient fireplaces and stones for grinding corn set in their original positions used by the former inhabitants. There are no external windows or passages, except on the south side where midway in length is a recess in which was placed a ladder in order to be hidden from view. The inhabitants evidently used the roof of the lowest terrace for many occupations. A bird's-eye view shows that all the rooms, now roofless, fall into two groups.

In the center of this mass of rooms there is a circular chamber 32 feet in diameter, resembling a well, around which the other rooms appear to cluster. Three of these surrounding rooms are circular and much smaller than the central, arranged with two on the left and one on the right side. In structure these rooms are identical with that of the large central room. They have mural banquettes and pilasters that once supported a roof. These circular depressions are ceremonial rooms, to which is applied the word kiva taken from the Hopi language. All four kivas of Far View House are identical in construction with the kivas of Spruce Tree House and Cliff Palace.

The rooms surrounding these circular ones vary somewhat in form but are as a rule rectangular, the shapes of those near the kivas being triangular to fill the necessary spaces. The contents of the rectangular rooms show that they were inhabited. Artifacts were found and indications of various industries as well as marks of smoke from their fireplaces appear on the walls. From the nature of this evidence there is no doubt that Far View House was once inhabited by the people living in the same way as those dwelling contemporaneously in Spruce Tree House.

The court added to the pueblo on its south side is inclosed by a low wall. Here were probably performed, in ancient times, the many religious dances and festivals.

Although the inhabitants of Far View House were ignorant of what we would call letters, or graphic means of recording events or their thoughts, they left engraved in their walls significant signs sometimes called "masons' marks." These simple symbols, whether found in cliff houses or in pueblos, have a close similarity which may be adduced as evidence of relationship in the thought of the people who made them. They are too imperfect to be regarded as primitive forms of writing.
Far View House is only one of 16 pueblos of the Mummy Lake village. Looking over the area covered with sagebrushes and dotted with mounds, the mind is able to apprehend the size of the population in the neighborhood. Over a dozen buildings of the same type as Far View House formerly stood among the fields of corn. These fields were watered by irrigating ditches from the prehistoric reservoir a quarter of a mile away. There are other villages of the same character within sight. Looking across Soda Canyon to the northeast the eye lights on a large rock called Battleship Rock, on the southern side of which, sheltered by it from the north winds, is a sagebrush clearing in which are several mounds. Battleship village was the nearest neighbor to Mummy Lake village, and we can almost trace the trail across Soda Canyon to this village and imagine the dusky visitors going from one to the other in prehistoric times.

The village in the lee of Battleship Rock is practically the same as that at Mummy Lake, but there are many other more distant neighbors dotting the surface of the mesa. There are several cliff houses in Navajo Canyon west of Far View House. Southwest of the pueblo, winding through the forest, is an ancient Indian trail which extends to Spruce Tree House. Along this trail we may well believe the inhabitants of the Mummy Lake village came in contact socially and in trade with larger cliff houses.

We do not know whether the language of the two people was identical; our knowledge of their sociology is vague; the only difference between their habitations is that one is built in a cliff under a protecting roof, while the other was constructed under the open sky. So far as the houses are concerned, both in their forms and details of construction, they belong to the same type. They have the same round subterranean rooms, roofed in the same manner. Except that in Far View House they are larger, the square rooms of both show identical masonry, plastered in the same way; identical culinary and other implements occur in both. Perhaps the most detailed resemblances come to light when we examine the pottery, its technique, and its symbolic decorations. The inhabitants of both places were clever potters. They manufactured three distinct kinds of pottery. The largest number of specimens which have come to light belong to what is called corrugated ware, on which the decoration is brought about by indentations, either covering the surface of the jar uniformly or arranged in geometric patterns. Another variety of ware, called from its color "black and white" in which the object was first covered with a white slip as a ground on which were painted designs, is also common to both communities. The designs themselves are identical. Scattered among these two forms of pottery occur fragments of a less frequent type, a red ware, the exterior of which is embellished with black figures. The technique and decoration of all ceramic objects thus far brought to light from cliff houses and Far View House belong to these groups and no others; and this resemblance is one of the strongest claims that can be urged for the identity of the culture in habitations apparently widely different. We might add to these evidences of uniformity other objects, like stone implements, and fabrics of various kinds, basketry, and various objects of ceremonial nature, all of which confirm the evidences taught by likeness of buildings that the people were practically in the same culture and inhabited synchronously.
The existence of a trail connecting these two centers of population would imply that cliff dwellings and pueblos on the Mesa Verde were simultaneously inhabited; but how far back in prehistoric times they were built and when deserted has not been determined. We can not say from data now at hand when this took place, but we can bring to our aid a few scanty survivals from the past, notwithstanding documentary history affords no help. The aborigines who lived near these ruins when discovered in 1883, belong to the Utes, a Shoshonean stock who disclaimed all knowledge of the people who constructed these buildings. They avoided them as uncanny and even now can only with difficulty be induced to enter them. They have dim legends of conflicts between the earliest Utes and the cliff dwellers, and if these can be relied upon the date of the evacuation of the cliff houses might be evident, if we knew when the Utes entered the country. Unfortunately, however, this date is not known.

Much more definite but still obscure are certain legends existing among the pueblos, especially the Hopi, that their ancestors formerly lived in cliff houses and migrated, for some unknown reason, to their present homes. Statements in pueblo legends connecting pueblo and cliff houses are supported by the character of life, and the material culture of the Hopi, as we knew them up to the present generation. Far View House shows that the inhabitants of cliff houses are kin to pueblos. Two lines of research are open to the student to enlarge his information bearing on this relation. It is desirable to extend our knowledge of the horizon of the cliff-dwelling culture, and to trace step by step the pueblos along the trail of culture migration until it vanishes at the modern pueblo. We can also investigate survivals among modern pueblos which are preserved especially in ceremonies and compare the objects still cherished as heirlooms in the different priesthoods and compare them with similar objects excavated from these ruins. When these two methods of research have led to logical conclusions we will be able to determine that part of the history of the cliff dwellers on which documentary history can shed no light.

OTHER RUINS NEAR FAR VIEW HOUSE.

During the season, 1922, excavation and repair work, in the vicinity of Far View House, was carried on simultaneously. Far View House, excavated some years ago, was protected from the elements by a cement capping placed on top of the walls. A brief description of ruins excavated follows:

PIPE SHRINE HOUSE.

Pipe Shrine House is so named by reason of the large cache of ceremonial pipes that were found in the altar of the central kiva. The building, rectangular in shape and located directly to the south of Far View House, is composed of a large central kiva surrounded by a double row of small living and storage rooms, with a circular room in the west side, which may at some time have served as a watch tower. Many unique specimens were found during the excavations, a few of which were placed in the Park Museum. A skeleton found in the cemetery, to the south and east, was left exposed, to illustrate the burial customs of the ancient inhabitants.
ONE-CLAN HOUSE.

South along the ridge below Pipe Shrine House, about an eighth of a mile, a small ruin has been excavated. It is composed of a small but well-built kiva surrounded by secular rooms, a milling room, storage and sleeping rooms. This undoubtedly represents the home of a single clan, or unit, of the "Mummy Lake Culture" and is hence called the One-Clan House.

FAR VIEW TOWER.

Just north of Far View House, a tower surrounded by three kivas, and some late and secondary construction on the west and north, has been excavated. A cemetery was found to the south, but little was found in it because of the previous work of the early pothunters who had ransacked the site.

MEGALITHIC HOUSE.

This ruin, just north of Mummy Lake, was not completed, and the occurrence of large stones set on end to form the walls of one of the rooms is responsible for the name. A fair-sized kiva is found within the group.
RULES AND REGULATIONS.

(Approved February 5, 1923, to continue in force and effect until otherwise directed by the Secretary of the Interior.)

GENERAL REGULATIONS.

The following rules and regulations for the government of the Mesa Verde National Park are hereby established and made public, pursuant to authority conferred by the acts of Congress approved June 29, 1906 (34 Stat., 616), June 30, 1913 (38 Stat., 82), and August 25, 1916 (39 Stat., 535), as amended June 2, 1920 (41 Stat., 732).

1. Preservation of park features and curiosities.—The destruction, injury, or disturbance of any of the mineral deposits, natural curiosities, wonders, ruins, and other works and relics of prehistoric or primitive man on Government lands within the park is prohibited. The marking of any buildings, ruins, rocks, trees, fences, or other physical features with autographs, dates, initials, drawings, or other pencilings or carvings of any kind whatsoever, is prohibited, and violators of this regulation are subject to the penalties prescribed by law for the violation of these regulations.

2. Examination of ruins.—Visitors to the ruins shall in all cases be accompanied by a park ranger or other person duly authorized by the superintendent. The superintendent is authorized, in his discretion, to close any ruin on Government lands within the park to visitors when it shall appear to him that entrance thereto would be dangerous to visitors or might result in injury to walls or other insecure portions thereof, or during repairs.

3. Camping.—In order to preserve the natural scenery of the park and to provide pure water and facilities for keeping the park clean, permanent camp sites have been set apart for tourists visiting the park in their own conveyances, and no camping is permitted outside the specially designated sites. These camps have been used during past seasons; they will be used daily this year and for many years to come. It is necessary, therefore, that the following rules be strictly enforced for the protection of the health and comfort of the tourists who visit the park in their own conveyances.

   (a) Combustible rubbish shall be burned on camp fires and all other garbage and refuse of all kinds shall be placed in garbage cans, or, if cans are not available, placed in the pits provided at the edge of camp. At new or unfrequented camps garbage shall be burned or carried to a place hidden from sight. *Keep the camp grounds clean.*

   (b) There are thousands of visitors each year to each camp site. The water supply at Spruce Tree Camp, although pure and wholesome, is limited in quantity. *Use sparingly and help conserve it.* Waste on your part may keep others from visiting the park. Hikers and trail parties must not contaminate springs or watersheds of water supplies.

   (c) Campers and others shall not wash clothing or cooking utensils in any of the springs or reservoirs on the park nor pollute in any way
the waters of the park. Bathing in the reservoirs is strictly pro-
hibited.

(d) Stock shall not be tied so as to permit its entering any of the
springs or reservoirs on the park. All animals shall be kept a suffi-
cient distance from camp grounds in order not to litter the ground
and make unfit for use the area which may be used later as tent sites.

e) Wood for fuel only can be taken from dead or fallen trees.

4. Fires.—Fires constitute one of the greatest perils to the park;
they shall not be kindled near trees, dead wood, moss, dry leaves, for-
est mold, or other vegetable refuse, but in some open space on rocks
or earth. Should camp be made in a locality where no such open
space exists or is provided, the dead wood, moss, dry leaves, etc.,
shall be scraped away to the rock or earth over an area considerably
larger than that required for the fire.

Fires shall be lighted only when necessary, and when no longer
needed shall be completely extinguished, and all embers and bed
smothered with earth or water so that there remains no possibility
of reignition.

Especial care shall be taken that no lighted match, cigar, or ciga-
rette is dropped in any grass, twigs, leaves, or tree mold.

5. Hunting.—The park is a sanctuary for wild life of every sort, and
hunting, killing, wounding, capturing, or frightening any bird or wild
animal in the park, except dangerous animals when it is necessary to
prevent them from destroying life or inflicting injury, is prohibited.

The outfits, including guns, traps, teams, horses, or means of trans-
portation used by persons engaged in hunting, killing, trapping, ens-
naring, or capturing birds or wild animals, or in possession of game
killed on the park lands under circumstances other than prescribed
above, shall be taken up by the superintendent and held subject to
the order of the Director of the National Park Service, except in
cases where it is shown by satisfactory evidence that the outfit is not
the property of the person or persons violating this regulation, and
the actual owner was not a party to such violation. Firearms are
prohibited in the park except on written permission of the superin-
tendent. Visitors entering or traveling through the park to places
beyond shall, at entrance, report and surrender all firearms, traps,
nets, seines, or explosives in their possession to the first park officer,
and in proper cases may obtain his written leave to carry them
through the park sealed. The Government assumes no responsibili-
ties for loss or damage to any firearms, traps, nets, seines, or other
property so surrendered to any park officer, nor are park officers
authorized to accept the responsibility of custody of any property
for the convenience of visitors.

6. Private operations.—No person, firm, or corporation shall reside
permanently, engage in any business, or erect buildings in the park
without permission in writing from the Director of the National
Park Service, Washington, D. C. Applications for such permission
may be addressed to the director or to the superintendent of the
park. Permission to operate a moving-picture camera must be
secured from the superintendent of the park.

7. Gambling.—Gambling in any form, or the operation of gam-
bling devices, whether for merchandise or otherwise, is prohibited.

8. Advertisements.—Private notices or advertisements shall not be
posted or displayed on Government lands within the park, excepting
such as the park superintendent deems necessary for the convenience and guidance of the public.

9. Patented lands.—Owners of patented lands within the park limits are entitled to the full use and enjoyment thereof; the boundaries of such lands, however, shall be determined and marked and defined, so that they may be readily distinguished from the park lands. While no limitations or conditions are imposed upon the use of private lands so long as such use does not interfere with or injure the park, private owners shall provide against trespass by their live stock upon the park lands, and all trespasses committed will be punished to the full extent of the law. Stock may be taken over the park lands to patented private lands with the written permission and under the supervision of the superintendent, but such permission and supervision are not required when access to such private lands is had wholly over roads or lands not owned or controlled by the United States.

10. Grazing.—The running at large, herding, or grazing of live stock of any kind on the Government lands in the park, as well as the driving of live stock over same, is prohibited, except where authority therefor has been granted by the superintendent. Live stock found improperly on the park lands may be impounded and held until claimed by the owner and the trespass adjusted.

11. Authorized operators.—All persons, firms, or corporations holding franchises in the park shall keep the grounds used by them properly policed and shall maintain the premises in a sanitary condition to the satisfaction of the superintendent. No operator shall retain in his employment a person whose presence in the park may be deemed by the superintendent subversive of good order and management of the park.

All operators shall require each of their employees to wear a metal badge with a number thereon, or other mark of identification, the name and the number corresponding therewith, or the identification mark, being registered in the superintendent’s office. These badges must be worn in plain sight on the hat or cap.

12. Dogs and cats.—Cats are not permitted on the Government lands in the park, and dogs only to those persons passing through the park to the territory beyond, in which instances they shall be kept tied while crossing the park.

13. Dead animals.—All domestic or grazed animals that may die on Government lands in the park, at any tourist camp, or along any of the public thoroughfares shall be buried immediately by the owner or person having charge of such animals, at least 2 feet beneath the ground and in no case less than one-fourth mile from any camp or thoroughfare.

14. Travel on trails.—Pedestrians on trails, when saddle or pack animals are passing them, shall remain quiet until the animals have passed. Persons traveling on the trails of the park, either on foot or on saddle animals, shall not make short cuts, but shall confine themselves to the main trails.

15. Travel—General.—(a) Saddle horses, pack trains, and horse-drawn vehicles have the right of way over motor-propelled vehicles at all times.

(b) On sidehill grades throughout the park motor-driven vehicles shall take the outer side of the road when meeting or passing vehicles
of any kind drawn by animals; likewise, freight, baggage, and heavy
camping outfits shall take the outer side of the road on sidehill grades
when meeting or passing passenger vehicles drawn by animals.
(c) Load and vehicle weight limitations shall be those prescribed
from time to time by the Director of the National Park Service and
shall be complied with by the operators of all vehicles using the
park roads.
(d) All vehicles shall be equipped with lights for night travel. At
least one light shall be carried on the left front side of horse-drawn
vehicles in a position such as to be visible from both front and rear.
16. Miscellaneous.—(a) Campers and all others, save those hold­ing
licenses from the Director of the National Park Service, are pro­hibited from hiring their horses, trappings, or vehicles to tourists or
visitors in the park.
(b) All complaints by tourists and others as to service, etc., ren­dered in the park should be filed, in writing, with the superintendent,
whose office is at Spruce Tree Camp. Oral complaints will be heard
daily during office hours.
17. Fines and penalties.—Persons who render themselves obnox­ious by disorderly conduct or bad behavior shall be subjected to the
punishment hereinafter prescribed for violation of the foregoing
regulations, or they may be summarily removed from the park by
the superintendent and not allowed to return without permission in
writing from the Director of the National Park Service or the super­intendent of the park.
Any person who violates any of the foregoing regulations shall be
deemed guilty of a misdemeanor and shall be subject to a fine of not
more than $500 or imprisonment not exceeding six months, or both,
and be adjudged to pay all costs of the proceedings.
The act creating the park provides “that any person or persons
who may, without having secured proper permission from the Secre­tary of the Interior, willfully remove, disturb, destroy, or molest any
of the ruins, mounds, buildings, graves, relics, or other evidences of
an ancient civilization or other property from said park shall be
deemed guilty of a misdemeanor, and upon conviction before any
court having jurisdiction of such offenses shall be fined not more than
$1,000 or imprisoned not more than 12 months, or such person or
persons may be fined and imprisoned, at the discretion of the judge,
and shall be required to restore the property disturbed, if possible.”

AUTOMOBILE AND MOTORCYCLE REGULATIONS.

Pursuant to authority conferred by the acts of Congress approved
June 29, 1906 (34 Stat., 616), and August 25, 1916 (39 Stat., 535), as
amended June 2, 1920 (41 Stat., 732), the following regulations
covering the admission of automobiles and motorcycles into the
Mesa Verde National Park are hereby established and made public:
1. Entrances.—Automobiles and motorcycles may enter and
leave the park only through the northern entrance, which may be
reached from Mancos or Cortez, Colo.
2. Automobiles.—The park is open to automobiles operated for
pleasure, but not to those carrying passengers who are paying, either
directly or indirectly, for the use of machines (excepting, however,
automobiles used by transportation lines operating under Gover-
ment franchise), and any person operating an automobile in con-
travention of the provisions of this regulation may be deemed guilty
of its violation.

Careful driving is demanded of all persons using the roads.
The Government is in no way responsible for any kind of accident.

3. **Motor trucks.**—Motor trucks may enter the park subject to the
weight limitations and entrance fees prescribed by the Director of
the National Park Service.

4. **Motorcycles.**—Motorcycles are admitted to the park under the
same conditions as automobiles, and are subject to the same regula-
tions as far as they are applicable. Automobiles and horse-drawn
vehicles shall have the right of way over motorcycles.

5. **Intoxication.**—No person who is under the influence of intoxic-
cating liquor and no person who is addicted to the use of narcotic drugs
shall operate or drive a motor vehicle of any kind on the park roads.

6. **Roads—Hours.**—The use of automobiles and motorcycles will
be permitted on all roads in the park between 6 a.m. and 7 p.m.

7. **Permits.**—Permits shall be secured at the Administration
Building, Spruce Tree Camp, immediately on arrival, and will
entitle the permittee to operate the particular automobile indicated
in the permit over any or all roads in the park. It is good for the
entire season, expiring on December 31 of the year of issue, but is
not transferable to any other vehicle than that to which originally
issued. Duplicate permits will not be issued in lieu of original
permits lost or mislaid.

8. **Fees.**—Fees for automobile and motorcycle permits are $1.50
and 50 cents, respectively, and are payable in cash only.

9. **Distance apart; gears and brakes.**—Automobiles while in motion
shall be not less than 50 yards apart, except for purposes of passing,
which is permissible only on comparatively level stretches of road
or on slight grades. All automobiles, except while shifting gears,
shall retain their gears constantly enmeshed. The driver of each
automobile will be required to satisfy the ranger issuing the permit
that all parts of his machine, particularly the brakes and tires, are
in first-class working order and capable of making the trip; and that
there is sufficient gasoline in the tank to reach the next place where it
may be obtained. The automobile shall carry at least one extra tire.

10. **Speeds.**—Speed is limited to 12 miles per hour in ascending or
descending the mesa and when rounding sharp curves. On straight
open stretches, when no vehicle is nearer than 200 yards, speed may
be increased to 25 miles per hour.

11. **Horns.**—The horn shall be sounded on approaching curves or
stretches of road concealed for any considerable distance by slopes, over-
hanging trees, or other obstacles, and before meeting or passing other
automobiles, motorcycles, riding or driving animals, or pedestrians.

12. **Lights.**—All automobiles shall be equipped with head and tail
lights, the headlights to be of sufficient brilliancy to insure safety in
driving at night, and all lights shall be kept lighted after sunset when
automobile is on the roads. Headlights shall be dimmed when meet-
ing other automobiles, motorcycles, riding or driving animals, or
pedestrians.

13. **Muffler cut-outs.**—Muffler cut-outs shall be closed while ap-
proaching or passing riding horses, horse-drawn vehicles, hotels,
camps, or checking stations.
14. Teams.—When teams, saddle horses, or pack trains approach, automobiles shall take the outer edge of the roadway, regardless of the direction in which they may be going, taking care that sufficient room is left on the inside for the passage of vehicles and animals. Teams have the right of way, and automobiles shall be backed or otherwise handled as may be necessary so as to enable teams to pass with safety. In no case shall automobiles pass animals on the road at a speed greater than 8 miles an hour.

15. Overtaking vehicles.—Any vehicle traveling slowly upon any of the park roads shall, when overtaken by a faster-moving motor vehicle and upon suitable signal from such overtaking vehicle, give way to the right, in case of motor-driven vehicles, and to the inside or bank side of the road, in case of horse-drawn vehicles, allowing the overtaking vehicle reasonably free passage, provided the overtaking vehicle does not exceed the speed limits specified for the road in question.

When automobiles, going in opposite directions, meet on a grade, the ascending machine has right of way, and the descending machine shall be backed or otherwise handled as may be necessary to enable the ascending machine to pass with safety.

16. Accidents; stop-overs.—If, because of accident or stop for any reason, automobiles are unable to keep going they shall be immediately parked off the road, or, where this is impossible, on the outer edge of the road.

17. Fines and penalties.—Any person who violates any of the foregoing regulations shall be deemed guilty of a misdemeanor and shall be subject to a fine of not more than $500 or imprisonment not exceeding six months or both, and be adjudged to pay all costs of the proceedings, or may be punished by revocation of the automobile permit and by immediate ejectment from the park or by any combination of these penalties. Such violation shall be cause for refusal to issue a new automobile permit to the offender without prior sanction in writing from the Director of the National Park Service or the superintendent of the park.

18. Reduced engine power, gasoline, etc.—Due to the high altitude of the park roads, ranging as high as 8,000 feet, the power of all automobiles is much reduced, so that a leaner mixture and about 40 per cent more gasoline will be required than for the same distance at lower altitudes. Likewise, one gear lower will generally have to be used on grades than would have to be used in other places. A further effect that must be watched is the heating of the engine on long grades, which may become serious unless care is used. Gasoline can be purchased at regular supply stations in near-by towns and at Spruce Tree Camp.

MAP.

The following map may be obtained from the Director of the United States Geological Survey, Washington, D. C. Remittances should be made by money order or in cash.

Map of Mesa Verde National Park; 43 by 28 inches; scale one-half mile to the inch.

Price, 20 cents.

The roads, trails, and names are printed in black, the streams in blue, and the relief is indicated by brown contour lines.

1 May be purchased also by personal application to the office of the park superintendent at Spruce Tree Camp, but the park office cannot fill mail orders.
MESA VERDE NATIONAL PARK.

PANORAMIC VIEW.

The view described below may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. Panoramic View of Mesa Verde National Park; 22½ by 19 inches; scale, three-fourths mile to the inch. Price, 25 cents.

This view is based on accurate surveys and gives an excellent idea of the configuration of the surface as it would appear to a person flying over it. The meadows and valleys are printed in light green, the streams and lakes in light blue, the cliffs and ridges in brown tints, and the roads in light brown. The lettering is printed in light brown and is easily read on close inspection, but merges into the other colors when the sheet is held at some distance.

LITERATURE.

GOVERNMENT PUBLICATIONS.

Government publications on Mesa Verde National Park may be obtained as indicated below. Separate communications should be addressed to the officers mentioned.

DISTRIBUTED FREE BY THE NATIONAL PARK SERVICE.

The following publications may be obtained free on written application to the Director of the National Park Service, Washington, D. C., or by personal application to the superintendent of the park:

Map of National Parks and National Monuments.

Shows location of all the national parks and monuments administered by the National Park Service and all railroad routes to these reservations.

SOLD BY THE SUPERINTENDENT OF DOCUMENTS.

The following publications may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at the prices given. Remittances should be made by money order or in cash.

National Parks Portfolio, by Robert Sterling Yard. 248 pages, including 306 illustrations. Bound securely in cloth, $1.1

Contains nine chapters, each descriptive of a national park, and one larger chapter devoted to other parks and monuments.

Glimpses of our National Parks. 72 pages, including 31 illustrations. 10 cents.

Contains descriptions of the most important features of the principal national parks.


— Antiquities of the Mesa Verde National Park: Cliff Palace. (Bureau of American Ethnology Bull. 51, 1911. 82 pages, illustrated.) 45 cents. (Out of print.)

— Excavation and Repair of Sun Temple, Mesa Verde National Park. (Report of the Secretary of the Smithsonian Institution. 1916. 32 pages, illustrated.) 15 cents.

— A Prehistoric Mesa Verde pueblo and its people. (Report of the Secretary of the Smithsonian Institution.) 1917. 26 pages.

— Prehistoric Villages, Castles, and Towers of Southwestern Colorado. (Bureau of American Ethnology Bull. 70. 1919. 79 pages text, 33 plates.) 45 cents.

HOLMES, WILLIAM H. Report on ancient ruins in southwestern Colorado, examined during summers of 1875 and 1876. (Geological and Geographical Survey of the Territories (Hayden), Tenth Report, 1876, pp. 381 to 408, illustrated.) Cloth, $1.80.

1 May be purchased also by personal application to the office of the park superintendent at Spruce Tree Camp, but the park office can not fill mail orders.
BIBLIOGRAPHY.

Allen, E. F. A guide to the national parks of America. 1918. 338 pages.

Chapin, F. H. The land of the cliff dwellers. 1892. 187 pages.
Nordenskiöld, G. The cliff dwellers of the Mesa Verde. 1893. 171 pages, illustrated.

OTHER NATIONAL PARKS.

Rules and Regulations similar to this for the other national parks listed below may be obtained free of charge by writing to the Director of the National Park Service, Washington, D. C.

Crater Lake National Park.
Glacier National Park.
Grand Canyon National Park.
Hawaii National Park.
Hot Springs National Park.
Lafayette National Park.
Mount Rainier National Park.

Rocky Mountain National Park.
Sequoia and General Grant National Parks.
Wind Cave National Park.
Yellowstone National Park.
Yosemite National Park.
AUTHORIZED RATES FOR PUBLIC UTILITIES, SEASON OF 1923.

AUTOMOBILE TRANSPORTATION.

The Mesa Verde Transportation Co., C. R. Beers, manager, operates a daily automobile stage service for the transportation of visitors from Mancos, Colo., to Spruce Tree Camp in the Mesa Verde National Park, meeting all trains. Seven-passenger cars used exclusively.

AUTHORIZED RATES.

Mancos to Spruce Tree Camp and return, including transportation and guide service for one visit to Spruce Tree House, Cliff Palace, Balcony House, Sun Temple, Square Tower House, New Fire House, Sun Point, Far View House, and Pipe Shrine House. Per passenger, $12.50. Children under 8 years, half fare.

Twenty-five pounds of baggage carried free for each passenger. All baggage in excess of this amount will be charged for at the rate of 3 cents per pound each way.

AUTOMOBILE SCHEDULE.

Leave Mancos 2.15 p. m. | Leave Spruce Tree Camp 8 a.m.
Arrive Spruce Tree Camp 5.30 p. m. | Arrive Mancos 11 a.m.

CAMP ACCOMMODATIONS.

Spruce Tree Camp, American plan, Mrs. Oddie L. Jeep, manager, is situated on the rim of the Chapin Mesa overlooking three deep canyons and is adjacent to the Spruce Tree Ruin. Tent and cottage accommodations are available for visitors. Meals are served in a central dining room.

AUTHORIZED RATES FOR SPRUCE TREE CAMP.

Per day, including meals:
- One person occupying a tent exclusively $4.00
- Two or more persons occupying a tent, each 3.75
- One person occupying a cottage exclusively 4.50
- Two or more persons occupying a cottage, each 4.25

Per week, including meals:
- One person occupying a tent exclusively 20.00
- Two or more persons occupying a tent, each 17.50
- One person occupying a cottage exclusively 25.00
- Two or more persons occupying a cottage, each 22.50

Single meals, each 1.00

Baths in detached bathhouse, each .50

Children under 8 years, half of above rates.

SADDLE-HORSE AND PACK-ANIMAL SERVICE.

The Mesa Verde Pack & Saddle Co., A. B. Hardin, manager, operates a saddle-horse and pack-animal service and will furnish complete camp outfits on the condition that saddle and pack horses and camp equipment will be accompanied by registered guides in the employ of the company. Guides, stock, and equipment can be
secured and released only at Spruce Tree Camp. A waterproof slicker, canteen, and lunch bag are included as equipment with each saddle horse. Gentle western stock, raised in the immediate vicinity and trained for mountain trail work, used on all trips.

SCHEDULED TRIPS FROM SPRUCE TREE CAMP.

(Arrangements must be made for one-day trips the evening before departure.)

One-day saddle-horse tours, escorted by guide, minimum number required two persons, Spruce Tree Camp to—
2. Casa Colorado and Inaccessible House Ruins via Navaho Rim Trail.
3. Mouth of Long Canyon via Spruce Tree and Navaho Canyons.
5. Main Chapin Mesa Ruins via trail and roads.

AUTHORIZED RATES.

Two persons, $4 each; three or four, $3.50 each; five or more, $3 each. Extra guide, including horse, furnished with parties of 10 or more.

NONSCHEDULED INDEFINITE SERVICE TRIPS FROM SPRUCE TREE CAMP.

(Two days' notice required for nonscheduled indefinite service trips.)

This service includes guide-cook with horse and furnishes each member of party with one saddle horse, one pack animal, bed, tent, canteen, slicker, and subsistence for the period of the trip. For parties of more than four persons an extra guide and helper, including horse, is added for each additional four or part thereof. This service includes everything but personal articles. Minimum time for nonscheduled indefinite service trips is three days.

AUTHORIZED RATES.

One person per day ................................................................. $15
Two persons per day, each ...................................................... 12
Three or four persons per day, each ......................................... 10
Five or more persons per day, each ......................................... 9
Extra pack animals, as required by members of party, per day, each ........................................ 2

The Rock Springs and Wetherill Mesa Ruins, which are among the finest on the park, and have not been excavated or repaired, can be visited by this service in a minimum of three days. Other equally interesting trips from a week to 10 days.

A pair of heavy mountain boots, an old broad-brimmed felt hat, and old clothes are alone needed on such a trip. Because of the roughness of the country, ladies should wear short divided skirts, or, better still, strong, serviceable riding breeches. Divided skirts can be secured, if required, from Mesa Verde Pack & Saddle Co., at a daily rental charge of 50 cents.
Model of Far View House. Reprinted from "Explorations and Field Work of the Smithsonian Institution in 1916."

Far View House from the south. This mesa pueblo was excavated in 1916. It is one of the Mummy Lake group of ruins.

Photograph by G. L. Beam.
Photograph by Geo. L. Beam.

Oak Tree House from Sun Point Road.

Spruce Tree House.