



THE PREHISTORIC
CLIFF DWELLINGS
MESA VERDE
NATIONAL PARK
SOUTHWESTERN COLORADO



Cliff Palace, the Largest Ruin in the Mesa Verde

MOST REMARKABLE RUINS
OF ANCIENT HABITATIONS
IN THE UNITED STATES



HOW TO REACH THE CLIFF RUINS MESA VERDE NATIONAL PARK SOUTHWESTERN COLORADO

A JOURNEY to the Mesa Verde National Park and its cliff ruins will prove a delight to all who undertake it. The Mesa Verde National Park, which is more spectacular in interest than any other place of its kind, is reached over the Government's new thirty-two-mile automobile road from the town of Mancos on the Denver & Rio Grande Railroad's famous "Around the Circle" tour, which includes the most noted scenic attractions of the Colorado Rockies.

Starting from Denver, the "Around the Circle" tour includes Colorado Springs, in the Pikes Peak region; Pueblo, Cañon City, the Royal Gorge, the Grand Cañon of the Arkansas, Marshall Pass, the Black Cañon of the Gunnison, Montrose, Ridgway, the Dallas Divide, Telluride, Ophir Loop, Lizard Head Pass, and Mancos, from which point automobile is taken for the trip to the Mesa Verde Ruins. Returning, the route is through Durango, Cumbres, where the railroad crosses the Continental Divide, Toltec Gorge, and the San Luis Valley to Alamosa. From there a night ride is made across La Veta Pass and in the morning Pueblo, Colorado Springs or Denver is reached and the "Circle" completed. Side trips should be made from Ridgway to Ouray, the heart of the "American Jungfrau," distance ten miles, and from Durango through the incomparable Las Animas Cañon to the important mining town of Silverton, located at the very foot of mountains rising more than 14,000 feet high; also from Antonito south through the Indian Villages and Pueblos of Taos, San Juan, Santa Cruz, Santa Clara, and San Ildefonso and the ancient ruins of Puyé and Pajarito Park en route to Santa Fe, the oldest city in America.

The "Around the Circle" tour embraces a four days' trip, every mile of which is through the valleys, cañons and peaks of the majestic Rockies. The train service is by daylight, and hotel accommodations at stopover points are excellent and the trip can be made continuous or broken by stopovers to suit the convenience of the travelers.

The trip from Mancos to the Park can be made in from two and one-half to three hours by automobile. Kelly & French Auto Livery, of Mancos, have the concession from the United States Government for operating the automobile stage line from Mancos to the Mesa Verde National Park. The drivers are all experienced guides, and they take the automobile parties through the four principal ruins—Cliff Palace, Spruce Tree House, Balcony House and Peabody House—which can be covered in one day of sight-seeing. They return to Mancos on the following morning, thus enabling the tourist to make the trip to and from the Park in twenty-four hours' if time is an element, but a longer time can be used to advantage.

For the benefit of those who have never made the trip to Mesa Verde National Park, this suggestion is made: Wear rough-and-ready outing garb—khaki suits and stout-soled, comfortable shoes will prove excellent. Ladies should wear divided skirts, as there are many ladders and steep trails to climb in getting in and out of the cliff ruins. The climate is mild, but the nights are cool, so sweaters or extra wraps of some sort will come in handy. A comfortable camp is maintained at Spruce Tree House. Good beds and excellent table fare are provided. Meals, 75 cents; lodging, 75 cents. From this picturesquely located camp, facing Spruce Tree House, one of the largest and finest of the ruins, many excursions in the National Park can be taken in perfect safety and comfort.

For fares to Mancos and the Mesa Verde National Park,
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DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY

THE
MESA VERDE
NATIONAL PARK

Season of 1915

GENERAL INFORMATION

Most Remarkable Examples of Prehistoric Cliff Dwellings in the United States—Story of their Discovery in 1888—Spruce Tree House, really a village, once had 350 inhabitants—Community Life as Shown by Plan of Construction—Cliff Palace as Repaired—How to Reach Mesa Verde—Facilities for Studying the Ruins—Automobile and Other Regulations.

OF all the many ruins of prehistoric cliff dwellings in the southwestern United States those in the side canyon of the Mancos on the Mesa Verde in Montezuma County, Colo., are for many reasons the most remarkable. This is why Congress has set aside 48,966 acres of southwestern Colorado and called it the Mesa Verde National Park.

It appears strange that the greatest of American prehistoric ruins should have escaped discovery until 1888. Years before innumerable ancient ruins left in several other States by the ancestors of the Pueblo Indians had been described and pictured. They had been the subjects of popular lectures; they had been treated in books of science and books of travel; they had become a familiar American spectacle. Even the ruins in the Mancos Canyon in Colorado were explored as early as 1874. 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 so characteristic of the region. But these discoveries attracted little attention because of their inferiority to the better-known ruins of Arizona and New Mexico. Had either of the explorers followed up the side canyon of the Mancos they would have then discovered ruins which are, in the words of Baron Gustav Nordenskiöld, the talented Swedish explorer, "so magnificent that they surpass anything of the kind known in the United States."

This explains why delvers in libraries find so little about the Mesa Verde. Most books and magazine articles were written when cliff dwellings were a novelty.

Baron Nordenskiöld thus describes in his book "The Cliff Dwellers of the Mesa Verde" (Stockholm, 1893) the discovery of the wonderful dwellings in this side canyon of the Mancos:

The honor of the discovery of these remarkable ruins belongs to Richard and Alfred Wetherill, of Mancos. The family own large herds of cattle which wander about on the Mesa Verde. The care of these herds often calls for long rides on the mesa and in its labyrinth of canyons. During these long excursions ruins, the one more magnificent than the other, have been discovered. The two largest were found by Richard Wetherill and Charley Mason one December day in 1888 as they were riding together through the pinyon wood on the mesa in search of a stray herd. They had penetrated through the dense scrub to the edge of a deep canyon. In the opposite cliff, sheltered by a huge, massive vault of rock, there lay before their astonished eyes a whole town, with towers and walls, rising out of a heap of ruins. This grand monument of bygone ages seemed to them well deserving of the name of the Cliff Palace. Not far from this place, but in a different canyon, they discovered, on the same day, another very large cliff dwelling. To this they gave the name of Spruce Tree House, from a great spruce that jutted forth from the ruins.

During the course of years Richard and Alfred Wetherill have explored the mesa and its canyons in all directions. They have thus gained a more thorough knowledge of its ruins than anyone. Together with their brothers John, Clayton, and Wynn they have also carried out excavations, during which a number of extremely interesting finds have been made.

A considerable collection of these objects, comprising skulls, pottery, implements of stone, bone, and wood, etc., has been sold to the Historical Society of Colorado.

A still larger collection is in the possession of the Wetherill family. A brief catalogue of this collection forms the first printed notice of the remarkable finds made during the excavations.

The ancient Pueblos built their homes in the side walls of great valleys, which prehistoric floods washed to the depth sometimes of thousands of feet in the great plateau of the American Southwest. Such a valley, for example, is the Grand Canyon of the Colorado, but the Grand Canyon was not frequented by the Cliff Dwellers. Under overhanging cliffs, protected alike from furious sun above and from human enemies below, they perched their villages and cities, approachable only by difficult trails and series of ladders.

In many cases the word dwelling is misleading, for most of these buildings were villages. Spruce Tree House, for instance, was undoubtedly a town of importance, harboring at least 350 inhabitants.

The arrangement of houses in a cliff dwelling of the size of Cliff Palace, for example, is characteristic and intimately associated with the distribution of the social divisions of the inhabitants. The population was composed of a number of units, possibly clans, each of which had its own social organization more or less distinct from others, a condition that appears in the arrangement of 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 rooms, which was 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 or storage of corn. The corn was ground into meal in another room containing the *metate* set in a bin or stone box, and in some instances in fireplaces, although these were generally placed in the plazas or on the housetops. All these different rooms, taken together, constitute 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 ceremonies, 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 excavate 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 the ritual required.

The highest part of the Mesa Verde National Park is Park Point, is 8,574 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 floor of the Montezuma Valley. The general slope of the mesa is to the south, so that a person on the northern rim has a view in all directions. Looking north can be seen

the Rico Mountains with the Montezuma Valley lying just below the observer, dotted with artificial lakes and fertile fields. To the west are the La Salle and Blue Mountains in Utah, with Ute Mountain in the immediate foreground. To the south can be seen the Tunitcha Mountains and Shiprock in Arizona and New Mexico, while immediately in front of the observer are the various canyons cutting through the mesa in which the most important of the cliff dwellings are found. To the east can be seen the canyon of the Mancos River and the mesas lying to the east of it.

The new wagon road, now completed the entire distance and open to automobiles, ascends the mesa under the point of Point Lookout, and after a detour of some miles, to avoid a very narrow portion of the old road, comes back to the edge of the mesa; and all visitors to the park will be afforded this wonderful view many times, as the road, in heading many canyons, often returns to this vantage point.

The Mesa Verde is cut by numerous deep canyons, in which are found the cliff dwellings, the principal canyons being Ute, Horse, Rock, Long, Wickiup, Navajo, Spruce, Ruin, and Moccasin.

The park is placed under the exclusive control of the Secretary of the Interior, who is authorized to prescribe such rules and regulations and establish such service as he may deem necessary for the care and management of the park, and for the preservation from injury or spoliation of the ruins and other works and relics of prehistoric or primitive man within the limits of the reservation, and to grant permits for the examination, excavation, and other gathering of objects of antiquity by person or persons deemed properly qualified to conduct the same, provided they are undertaken only for the benefits of some reputable museum, university, college, or other recognized scientific or educational institution, with a view to increasing the knowledge of such objects and aiding the general advancement of archaeological science.

The Secretary of the Interior is represented in the actual administration of the park by a superintendent, assisted by a limited number of park rangers who patrol the reservation. The superintendent's post-office address is Mancos, Colo.

Within the park jurisdiction are many notable prehistoric ruins, the cliff dwellings comprising a group of great importance to the study of American archaeology.

The principal and most accessible ruins are the Spruce Tree House, Cliff Palace, Balcony House, and Tunnel House. Spruce Tree House is located in the head of Spruce Tree Canyon, a branch of Navajo Canyon. It originally contained about 130 rooms, built of dressed stone laid in adobe mortar, with the outside tiers chinked with chips of rock and broken pottery. Cliff Palace is located about 2 miles east of Spruce Tree House, in a left branch of Cliff Canyon, and

consists of a group of houses with ruins of 146 rooms, including 20 round kivas, or ceremonial rooms, and a tapering loopholed tower, forming a crescent of about 100 yards from horn to horn, which is reputed to be one of the most famous works of prehistoric man in existence. Balcony House, a mile east of Cliff Palace, in Ruin Canyon, contains about 25 rooms, some of which are in almost perfect condition. Tunnel House, about 2 miles south of Spruce Tree House, contains about 20 rooms and 2 kivas connected by an elaborate system of underground passages and a burial ground of 5,000 square feet. In each of these villages is an elaborate system of fortification, with, in some cases, walls 2.3 feet thick and 20 feet high, watch towers 30 feet high, and blockhouses pierced with loopholes.

TRANSPORTATION AND CAMPS.

Parties desiring to camp within the park may obtain suitable outfits and provisions in Mancos, Cortez, or Dolores at market rates, which are reasonable. Guides may be had either at Mancos or Cortez. Mancos is preferable as a starting point for the ruins, as it is on the line of the Rio Grande Southern Railroad. Cortez may be reached by stage from Dolores. The two towns are about equal in size.

Oddie L. Jeep, Mancos, Colo., has a concession to maintain a tourist camp near Spruce Tree House. Rates, 75 cents for each meal and 75 cents for bed.

Kelly & French Auto Livery has a concession to transport tourists by automobiles through the park. Rates, \$25 for one or two passengers, and \$5 extra for each additional passenger to the limit of the car, for a one-day's trip; \$10 per day, per car, for extra time.

The main wagon road of the Mesa Verde National Park, which is now completed and open during the season to both horse-drawn vehicles and automobiles, may be reached from a point on the Mancos-Cortez road, about 8 miles from Mancos and 12 miles from Cortez. After leaving the county highway the Government road winds through the pinyon-covered hills at the base of Point Lookout and ascends to the top of the mesa on an average of 8 per cent grade. From the boundary of the park to station 64, at the head of Morefield Canyon, the road is well constructed, and was, during the last season, widened and many of the sharp curves straightened, but is still narrow, and it is the intention of the management as soon as available funds can be obtained, to widen this portion of the road to 20 feet, with a protection on the outer edge. However, the road at present, with careful driving, is perfectly safe, and turnouts have been provided along the grade.

From station 64 to station 327 the road is 15 feet wide and in fine shape. This portion of the road passes through Morefield

Canyon over a low divide and down into Prater Canyon, then up along the west side of Prater, gradually rising until it strikes the old road at station 327. From station 327 the road is narrow for a distance of $1\frac{1}{4}$ miles, but this portion will be widened during the coming season. From this point the road is completed the balance of the distance (12 miles) to Spruce Tree Camp.

The trip over the Government road should be taken only by parties who are experienced in the handling and controlling of horses and should not be attempted in seasons when rainfall in quantity occurs. The road is very narrow in places and makes sharp turns, which require great care in the management of a team. The topography of the country is such that washouts frequently occur and the outer edge of the wagon road is frequently weakened by washes which render passage in some places very dangerous. All strangers traversing this route should be accompanied by an experienced guide.

Distances to points of interest in Mesa Verde National Park from Spruce Tree House.

	Distance and direction.
Spruce Tree House.....	$\frac{1}{4}$ mile W.
Cliff Palace.....	2 miles SE.
Balcony House.....	$2\frac{1}{2}$ miles SE.
Community House.....	2 miles SE.
Fewkes Canyon.....	$2\frac{1}{2}$ miles SSE.
Poole Canyon.....	4 miles S.
Peabody House.....	3 miles SW.
Long House.....	$2\frac{3}{4}$ miles SW.
Inaccessible.....	6 miles SSW.
Tunnel House.....	6 miles S.

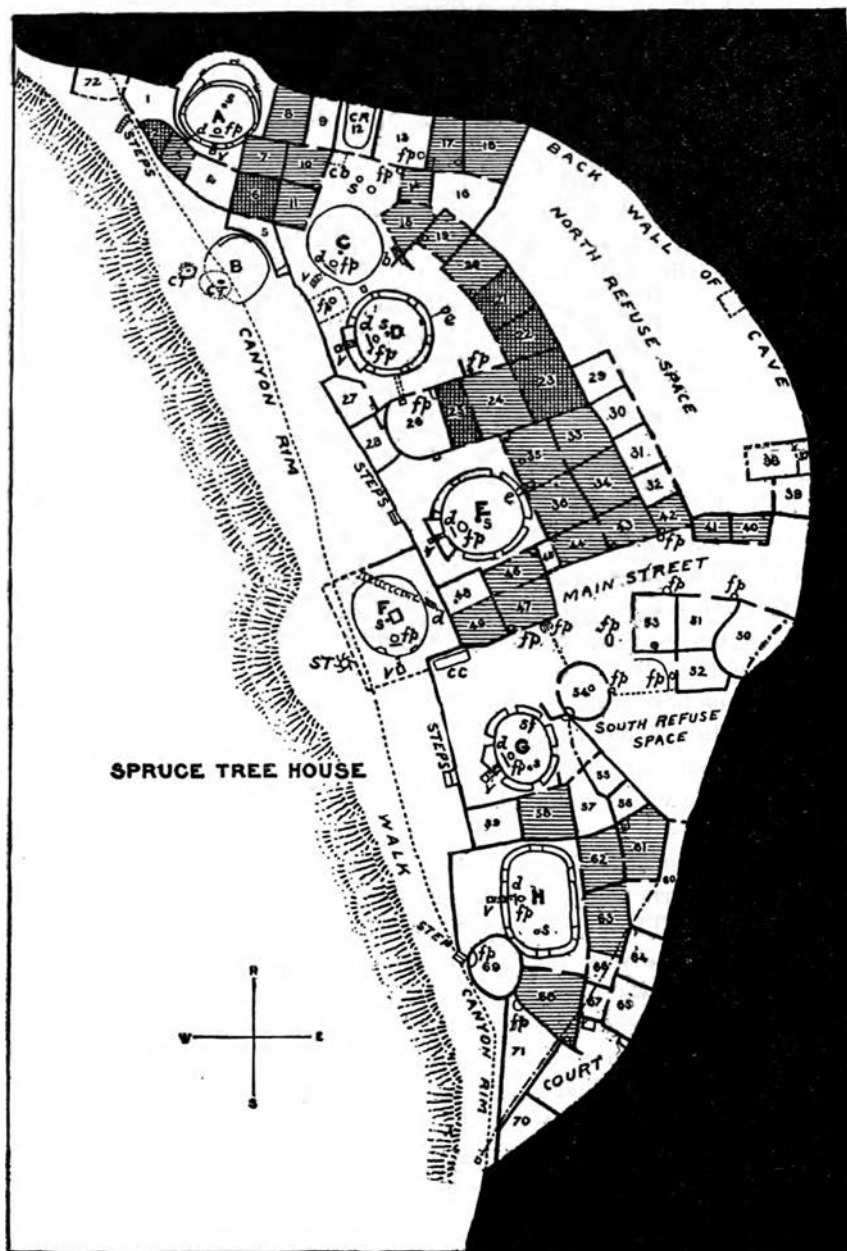
SPRUCE TREE HOUSE.

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 story¹ 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

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.

from the total number of rooms we have 100 inclosures which might have been dwellings. Allowing 4 inhabitants for each of these 100



SKETCH PLAN OF SPRUCE TREE HOUSE.

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 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.

Visitors to Spruce Tree House will find that there are two or three types of rooms in the Mesa Verde cliff villages. One type is evidently a living room, rectangular or quadrilateral in shape, with well-plastered floor, in one corner of which is commonly a fireplace. Another type, called kivas, has a circular form, is subterranean, and, like all religious chambers, preserves ancient characters which are highly instructive.

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 kivas¹ 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

¹ There is a numerical relationship between the population and the number of kivas which has not yet been satisfactorily worked out.

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 those 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 inhabitants 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, as shown by the projecting ends of rafters, had a balcony, a small section of which can still 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. 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.

WARRIOR'S 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 characteristic passage and also of the 6 inches. 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 *sípapû* 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 cliff 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 dwellings, 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 rises 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 a 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 call the *sipapû*. 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 *sipapûs* 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.¹ 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 passage-

¹ This screen, *d*, in Spruce Tree House kiva is not curved, as shown in the diagram given by Nordenskiöld of another kiva.

ways 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 roof.

The structure of 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 largest 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 the ruin of an ancient pueblo, now a pile of fallen stones, partially concealed by a thick growth of cedar trees. 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 under side 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 purpose. 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. 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 terrace 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.

ANCIENT ENTRANCE.

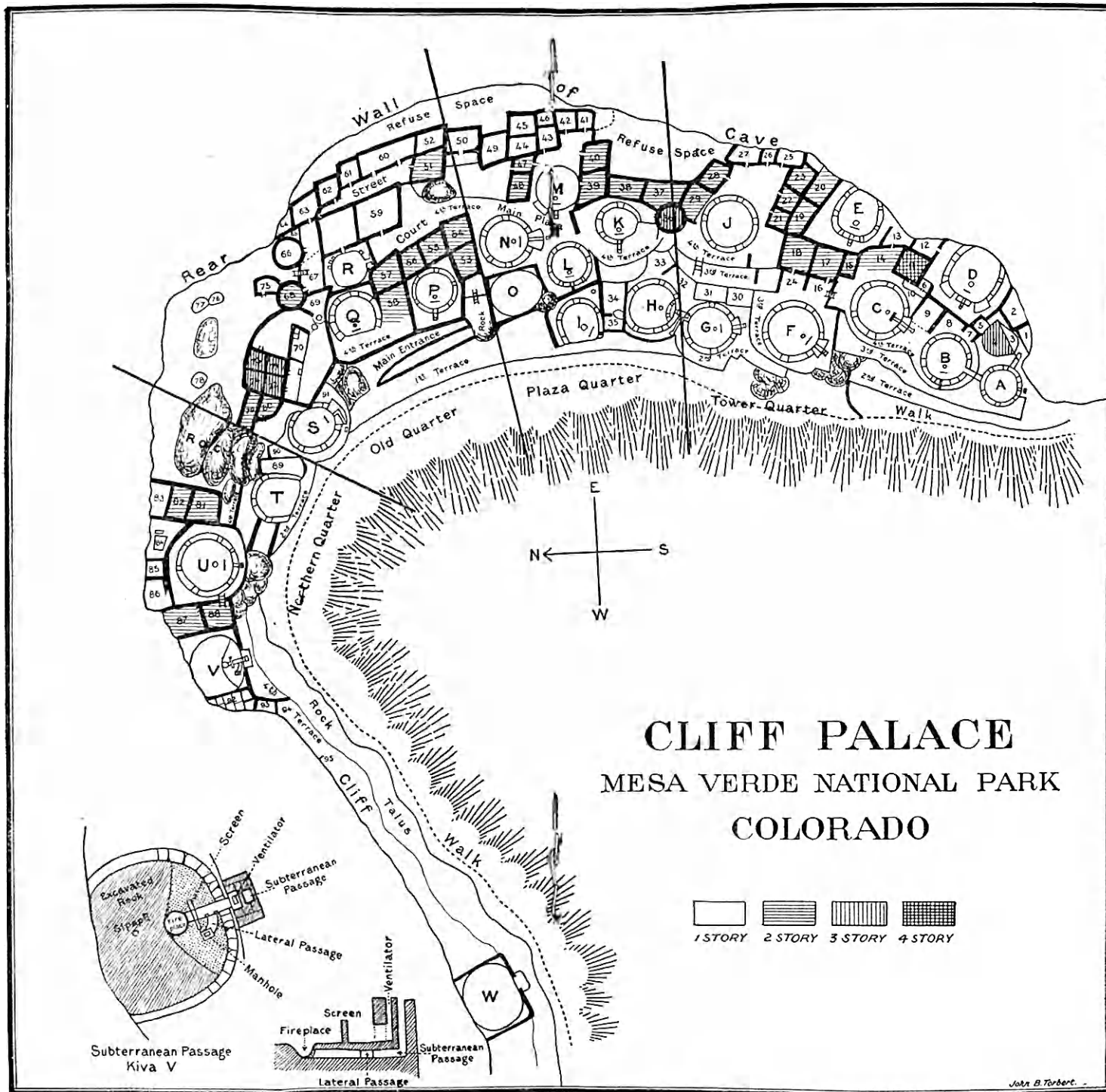
Deep under the débris which covered the lower terrace of Cliff Palace there was brought to light by excavation an ancient way, hitherto unknown, which leads by a gradual slope to the center of the village. This pathway extends parallel with the high front wall of Kiva O, and, passing to a large rock 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.

GROUND PLAN OF REPAIRED 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 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.¹

¹ This is explained on the theory that Cliff Palace is more ancient than Spruce Tree House, the kivas 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.



CLIFF PALACE SUBDIVISIONS.

In order to facilitate the description of Cliff Palace it is here arbitrarily divided into certain quarters or sections. The front entrance, being situated about midway of the length of the village, is naturally a point of division of the ruin into halves.¹

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.² 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 (*metates*), a second room with one *metate* and two cooking rooms.

¹ The quarters into which Cliff Palace is divided were possibly sociologically different.

² Probably belonging to the second type of ceremonial rooms later described.

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.¹ 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.

¹ It is sometimes stated that the cliff dwellers rarely dressed or smoothed the stones out of which they constructed walls. While this may be true of some cliff dwellings, it is not true of those on Mesa Verde.

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 one 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.

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.¹ 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.¹

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 banquette 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, firehole, 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.²

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

¹ Similar decorations occur likewise on the pedestals of Kiva A of Spruce Tree House and on the inner walls of the third story of the Square Tower.

² In the kivas of some of the cliff dwellings in Navaho National Monument a doorway occupies the position of the lateral entrance of the ventilator into the kiva. These kivas are rectangular and are exceptional in having entrances opening laterally instead of vertically.

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 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.¹ They have banquettes on the side wall, quite wide at each end, and generally a lateral passage-way 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.²

¹ A similar room in Spruce Tree House was called, in my report on Spruce Tree House, a "warrior room," without sufficient reason.

² Nordenskiöld's comments on this chamber as a connecting link between circular and square kivas are not convincing. In origin square kivas were independent of circular kivas, and the indications are that in some cases the former had lateral openings or doorways.

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 (*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 *mano*. The women or girls who ground the corn knelt on the side of the mill at the top of the *metate* and rubbed the *mano* over the *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 *metates* in this series are graded in roughness, so as to grind the meal finer and finer as it was passed from one to another. The mills were so well preserved that even the fragments of pottery in the angles of the recep-

tacles 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 cists, 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 pigmies.

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 contribute.

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.

RULES AND REGULATIONS.

REGULATIONS APPROVED MARCH 30, 1912.

Pursuant to authority conferred by the act of Congress approved June 29, 1906, the following rules and regulations for the government of the Mesa Verde National Park, in Colorado, are hereby established and made public and extended, as far as applicable to all prehistoric ruins situated within 5 miles of the boundaries thereof on Indian and public lands not alienated by patent from the ownership of the United States:

1. It is forbidden to injure or disturb, except as herein provided, 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, or the ruins and other works or relics of prehistoric man, on Government lands within 5 miles of the boundaries of the park.

2. Permits for the examination of ruins, the excavation of archaeological sites, and the gathering of objects of antiquity will, upon application to the Secretary of the Interior through the superintendent of the park, be granted to accredited representatives of reputable museums, universities, colleges, or other recognized scientific or educational institutions, with a view to increasing the knowl-

edge of such objects and aiding the general advancement of archaeological science, under the conditions and restrictions contained in present or future regulations promulgated by the Secretary of the Interior to carry out the provisions of the act of Congress approved June 8, 1906, entitled "An act for the preservation of American antiquities."

3. Persons bearing archaeological permits from the department may be permitted to enter the ruins unaccompanied after presenting their credentials to the superintendent or other park officer. Persons without archaeological permits who wish to visit and enter the ruins shall in all cases be accompanied by a park ranger or other person duly authorized by the superintendent.

4. The superintendent is authorized, in his discretion, to close any ruin on Government lands within the park on the 5-mile limit 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.

5. The superintendent is authorized, in his discretion, to designate the place or places to be used by campers in the park, and where firewood can be obtained by them. All garbage and refuse must be deposited in places where it will not be offensive to the eye or contaminate any water supply on the park lands.

6. It is forbidden to cut or injure any timber growing on the park lands, except as provided in paragraph 5 of these regulations; but dead or fallen timber may be taken by campers for fuel without obtaining permission therefor.

7. Fires should be lighted only when necessary and completely extinguished when not longer required. The utmost care must be taken at all times to avoid setting fire to the timber and grass.

8. Hunting or killing, wounding, or capturing any bird or wild animal on the park lands, except dangerous animals when necessary to prevent them from destroying life or inflicting an injury, is prohibited. The outfits, including guns, traps, teams, horses, or means of transportation used by persons engaged in hunting, killing, trapping, ensnaring, or capturing such birds or wild animals, or in possession of game killed on the park lands under other circumstances than those prescribed above, will be taken up by the superintendent and held subject to the order of the Secretary of the Interior, 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 thereof was not a party to such violation. Firearms will be permitted in the park only on written permission from the superintendent.

9. No person shall be permitted to reside permanently, or to engage in any business on the Government lands in the park without per-

mission, in writing, from the Secretary of the Interior. The superintendent may grant authority to competent persons to act as guides and revoke the same in his discretion, and no pack trains will be allowed in the park unless in charge of a duly registered guide.

10. Owners of patented lands within the park limits are entitled to the full use and enjoyment thereof; the boundaries of such lands, however, must 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 such private lands so long as such use does not interfere with or injure the park, private owners must provide against trespass by their stock or cattle, or otherwise, 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.

11. Allowing the running at large, herding, or grazing of cattle or stock of any kind on the Government lands in the park, as well as the driving of such stock or cattle over same, is strictly forbidden, except where authority therefor has been granted by the superintendent. All cattle or stock found trespassing in the park lands will be impounded and disposed of as directed in regulations approved March 30, 1912.

12. The sale of intoxicating liquors on the Government lands in the park is strictly forbidden.

13. Private notices or advertisements shall not be posted or displayed on the Government lands within the park nor upon or about ruins on Government lands within the 5-mile strip surrounding the same, except such as may be necessary for the convenience and guidance of the public.

14. Persons who render themselves obnoxious by disorderly conduct or bad behavior, or who may violate any of the foregoing rules, will be summarily removed from the park and will not be allowed to return without permission, in writing, from the Secretary of the Interior or the superintendent of the park.

15. 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 in 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 court, and shall be required to restore the property destroyed if possible.

Any person or persons guilty of such vandalism upon Government lands within the 5-mile strip will be liable to a penalty of \$500, or imprisonment of not more than 90 days, or both, in the discretion of the court, as provided in the act of Congress approved June 8, 1906, entitled "An act for the preservation of American antiquities."

16. The superintendent designated by the Secretary of the Interior is hereby authorized and directed to remove all trespassers from the Government lands in the park and to enforce these rules and regulations and all the provisions of the act of Congress creating the same.

The Indian police and field employees of the General Land Office are required to cooperate with the superintendent in the enforcement of these regulations as regards the 5-mile strip surrounding the park.

INSTRUCTIONS OF DECEMBER 11, 1913.

Visitors to the Mesa Verde National Park are hereby notified that when dogs are taken through the park they must be prevented from chasing the animals and birds or annoying passers-by. To this end they must be carried in the wagons or led behind them while traveling and kept within the limits of the camps when halted. Any dog found at large in disregard of these instructions will be killed.

REGULATIONS APPROVED MAY 18, 1914, GOVERNING AUTOMOBILES AND MOTOR CYCLES.

Pursuant to authority conferred by the act of June 29, 1906, setting aside certain lands in the State of Colorado as a public park, the following regulations governing the admission of automobiles and motor cycles into the Mesa Verde National Park are hereby established and made public:

1. No automobile or motor cycle will be permitted within the metes and bounds of Mesa Verde National Park unless the owners thereof secure a written permit from the superintendent or his representative. Permits may be secured at the superintendent's office at Mancos, Colo.

2. Applications for permit must show: (a) Name of owner, (b) number of machine, (c) name of driver, and (d) inclusive dates for which permit is desired, and be accompanied by a fee of \$1 for a single trip, or \$5 for the season. Permits must be presented to the superintendent or his representative at Spruce Tree Camp. The permittee will not be allowed to do a commercial or transportation business in the park without a special license therefor from the Secretary of the Interior. All permits will expire on the 1st day of November of the year of issue.

3. The use of automobiles and cycle cars will be permitted on all roads in Mesa Verde National Park, except that portion of the Mill's

Survey between station 64 and station 327, not earlier than 6 a. m. nor later than 7 p. m. No machine will leave Spruce Tree Camp to make the trip to the northern boundary of the park later than 5 p. m.

4. When teams approach, motor vehicles will take position on the outer edge of the roadway, regardless of the direction in which they are going, taking care that sufficient room is left on the inside for the passage of teams.

5. Motors will stop when teams approach and remain at rest until teams have passed or until teamsters are satisfied regarding the safety of their teams.

6. All machines will be limited to a speed of 6 miles per hour in making the ascent of the mesa or in making the descent therefrom, between stations 0 and 62, and on all roads beyond station 62 speed will be limited to 8 miles per hour, except on straight stretches where approaching teams will be visible, when, if no teams are in sight, this speed may be increased; but in no event, however, shall it exceed 15 miles per hour.

7. Signal with horn will be given at or near every bend of the road to announce to approaching teams the proximity of the motors. At all turnouts between station 0 and station 62, and wherever signboards shall so announce, motors will stop on the outer edge of the turn and wait for three minutes to allow any vehicle time to become visible around the turns.

8. Teams have the right of way, and machines will be backed or otherwise handled, as necessary, so as to enable teams to pass with safety.

9. All persons when entering the park with machines are required to report at Spruce Tree Camp and register their names.

10. Violation of any of the foregoing rules, or the general regulations for the government of the park, will cause revocation of permit; will subject the owner of the machine to any damages occasioned thereby, and to ejection from the reservation; and be cause for refusal to issue a new permit to the owner without prior sanction in writing from the Secretary of the Interior.

MAP.

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

Map of Mesa Verde National Park; 43 by 28 inches; scale, $\frac{1}{2}$ mile to the inch. Price, 40 cents.

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

LITERATURE.**GOVERNMENT PUBLICATIONS.****DEPARTMENT OF THE INTERIOR.**

The following publications may be obtained from the Secretary of the Interior:

Annual Report of the Superintendent of the Mesa Verde National Park.

Annual administrative report. Contains no descriptive matter.

General information regarding Mesa Verde National Park. (This circular.)

BUREAU OF AMERICAN ETHNOLOGY.

The following publications may be obtained from the Bureau of American Ethnology, Washington, D. C.:

Bulletin 41. Antiquities of the Mesa Verde National Park: Spruce Tree House, by J. W. Fewkes. 1909. 57 pages, illustrated.

Bulletin 51. Antiquities of the Mesa Verde National Park: Cliff Palace, by J. W. Fewkes. 1911. 82 pages, illustrated.

SUPERINTENDENT OF DOCUMENTS.

The following publication may be purchased from the superintendent of documents, Government Printing Office, Washington, D. C., at the price stated:

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

NOTE.—The same volume contains papers entitled Report on ancient ruins examined in 1875 and 1877.—Report on the Chaco Cranium.

BOOKS.

ALLEN, E. F. A guide to the national parks of America. 1915. 286 pages.

BRYCE, JAMES. University and historical addresses. 1913. 433 pages.

National Parks: The need of the future, on pages 389-406.

CHAPIN, F. H. The land of the cliff dwellers. 1892. 187 pp.

NORDENSKIÖLD, G. The cliff dwellers of the Mesa Verde. 1903. 171 pp., illustrated.

MAGAZINE ARTICLES.

AMERICAN ANTIQUARIAN, vol. 12 (March, 1890), pp. 85-104. Cliff dwellers and their works, by S. D. Peet.

— vol. 12 (July, 1890), pp. 193-210. Cliff dwellings of the Mancos Cañons, by F. H. Chapin.

— vol. 14 (May, 1892), pp. 123-138. The cliff dwellings of the cañons of the Mesa Verde, by W. R. Birdsall.

— vol. 18 (September, 1896), pp. 285-302. Study of high cliff dwellings and cave towns, by S. D. Peet.

— vol. 19 (March, 1897), pp. 100-111. Relative age of the pueblos and cliff dwellings, by S. D. Peet.

— vol. 20 (January, 1898), pp. 19-36. Cliff Palace and its surroundings, by S. D. Peet.

— vol. 20 (March, 1898), pp. 81-100. Cliff fortresses, by S. D. Peet.

- AMERICAN ANTIQUARIAN, vol. 20 (September, 1898), pp. 275-298. Religious life and works of the cliff dwellers, by S. D. Peet.
- vol. 21 (January-February, 1899), pp. 17-40. Social and domestic life of the cliff dwellers, by S. D. Peet.
- vol. 21 (March-April, 1899), pp. 99-122. Relics of the cliff dwellers, by S. D. Peet.
- vol. 21 (May-June, 1899), pp. 209-232. Agriculture among the pueblos and cliff dwellers, by S. D. Peet.
- AMERICAN CIVIC ASSOCIATION (Washington, D. C.). National Parks, 32 pages. Contains "National parks the need of the future," by James Bryce; Address on a Bureau of National Parks, by W. H. Taft; Address on a Bureau of National Parks, by Walter L. Fisher; "Are national parks worth while?" by J. H. McFarland.
- AMERICAN GEOGRAPHICAL SOCIETY BULLETIN, vol. 23 (Dec. 31, 1891), pp. 584-620. The cliff dwellings of the cañons of the Mesa Verde, by W. R. Birdsall.
- AMERICAN GEOGRAPHICAL SOCIETY BULLETIN, vol. 44 (August, 1912), pp. 593-598. Geographical study of Mesa Verde, by W. W. Atwood.
- AMERICAN NATURALIST, vol. 10 (January, 1876), pp. 31-37. Ancient ruins in Colorado, by W. H. Jackson.
- ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE, vol. 35 (March, 1910), pp. 1-12. The parks and recreation facilities in the United States, by John Nolen.
- vol. 35 (March, 1910), pp. 15-24. Our national parks and reservations, by W. E. Curtis.
- CHAUTAUQUAN, vol. 51 (July, 1908), pp. 194-206. A tenderfoot at the cliff dwellings of the Mesa Verde, by A. M. Anderson.
- GOOD WORDS, vol. 20 (July, 1879), pp. 486-492. The cliff dwellers of the far west, by S. B. J. Skertchly.
- HARPER'S MAGAZINE, vol. 93 (September, 1896), pp. 545-561. A summer among the cliff dwellers, by T. M. Prudden.
- KANSAS CITY REVIEW OF SCIENCE AND INDUSTRY, vol. 6 (March, 1883), pp. 636-639. Cliff dwellers of the New Mexico cañons.
- MAGAZINE OF WESTERN HISTORY, vol. 10 (July, 1889), pp. 278-281. The cliff dwellers, by H. D. Teeter.
- MOTOR AGE, vol. 25 (Apr. 9, 1914), pp. 1-10. Uncle Sam—His parks, by C. G. Sinsabaugh.
- vol. 25 (Apr. 9, 1914), pp. 10-12. How to get to the national parks, by John P. Dods.
- NATIONAL GEOGRAPHIC MAGAZINE, vol. 9 (October, 1898), p. 431. Mesa Verde, by F. H. Newell.
- vol. 23 (June, 1912), pp. 531-579. Our national parks, by L. F. Schmeckebier.
- OUTLOOK, vol. 95 (May 28, 1910), pp. 157-159. Scenery as a national asset, by Allen Chamberlain.
- vol. 100 (Feb. 3, 1912), p. 246. A national park service.
- vol. 102 (Dec. 14, 1912), pp. 811-815. National parks, the need of the future, by James Bryce.
- OVERLAND MONTHLY, 2d s., vol. 39 (May, 1902) pp. 875-881. The preservation of cliff dwellings, by K. L. Smith.
- PACIFIC MONTHLY, vol. 17 (June, 1907), pp. 696-713. The cliff dwellers and the Mormon theory, by W. C. McBride.

POPULAR SCIENCE MONTHLY, vol. 16 (March, 1880), pp. 666-673. Prehistoric ruins in southern Colorado, by Henry Gannett.

— vol. 80 (June, 1912), pp. 531-547. The national parks from the scientific and educational side, by L. F. Schmeckebier.

SCRIBNER'S MONTHLY, vol. 17 (December, 1878), pp. 266-276. Cliff dwellers, by E. C. Hardacre.

SCIENTIFIC AMERICAN, vol. 84 (May 11, 1901), pp. 297-298. A cliff-dwelling park in Colorado, by Cosmos Mindeleff.

SIERRA CLUB BULLETIN, vol. 8 (January, 1912), pp. 236-239. Are national parks worth while, by J. H. McFarland.

— vol. 9 (January, 1913), pp. 28-32. National parks the need of the future, by James Bryce.

TRAVEL, vol. 19 (August, 1912), pp. 16-19. The cliff dwellings of Colorado, by S. E. Shoemaker.

WORLD'S WORK, vol. 24 (May, 1912), pp. 68-77. Unknown wonders of our national parks.

OTHER NATIONAL PARKS.

The circulars containing information about National Parks listed below may be obtained free of charge by writing to the Secretary of the Interior, Washington, D. C.

Yellowstone National Park.

Mount Rainier National Park.

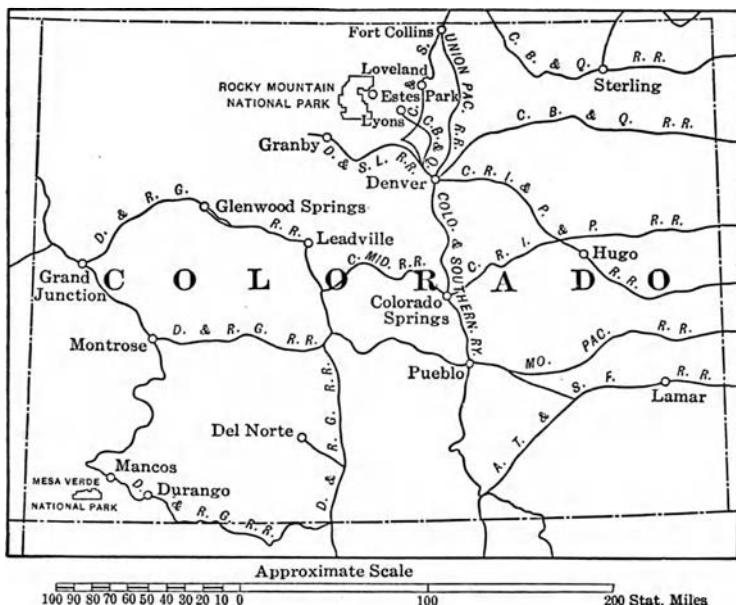
Crater Lake National Park.

Yosemite National Park.

Sequoia and General Grant National Parks.

The Hot Springs of Arkansas.

Glacier National Park.



MAP SHOWING RAILROAD ROUTES TO MESA VERDE AND ROCKY MOUNTAIN NATIONAL PARKS.

Round Trip Railroad Fares

—TO—

Mancos, Colorado, and the Mesa Verde National Park

SEASON OF 1916

TO MANCOS, COLORADO ENTRANCE TO MESA VERDE NATIONAL PARK				TO MESA VERDE NATIONAL PARK, COLORADO VIA MANCOS AND KELLY & FRENCH AUTO LIVERY		
FROM—	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
	Going and returning via Alamosa, or going and returning via Ridgway and Gunnison	In one direction via Alamosa and in the other direction via Ridgway and Gunnison (Small Circle)	In one direction via Alamosa and in the other direction via Ridgway, Grand Jet, and D. & R. G. (Big Circle)	Going and returning via Alamosa, or going and returning via Ridgway and Gunnison	In one direction via Alamosa and in the other direction via Ridgway and Gunnison (Small Circle)	In one direction via Alamosa and in the other direction via Ridgway, Grand Jet, and D. & R. G. (Big Circle)
Chicago	\$45 00	\$50 00	\$52 00	\$61 00	\$66 00	\$68 00
Peoria	43 20	48 20	50 20	59 20	64 20	66 20
St. Louis	42 00	47 00	49 00	58 00	63 00	65 00
Kansas City	34 50	39 50	41 50	50 50	55 50	57 50
Omaha	34 50	39 50	41 50	50 50	55 50	57 50
St. Paul	50 95	55 95	57 95	66 95	71 95	73 95
Minneapolis	50 95	55 95	57 95	66 95	71 95	73 95
Denver	25 00	28 00	33 00	41 00	44 00	49 00
Colorado Springs	25 00	28 00	33 00	41 00	44 00	49 00
Pueblo	24 00	28 00	33 00	40 00	44 00	49 00

Dates of Sale—June 1st to September 30th, 1916, inclusive.

Diverse Routes—East of Denver, Colorado Springs and Pueblo, tickets may read going and returning same, or going via any regularly authorized route returning via any other regularly authorized route.

Fares for Children—Through tickets covering rail and auto-stage transportation may be sold for children of one-half fare age (5 and under 12 years) at one-half the fare shown above.

Limits and Stopovers—Tickets sold at points in Kansas, Nebraska and east, north and south thereof will bear final return limit of 90 days from date of sale, but in no case beyond October 31, 1916. Tickets sold at points in Colorado, going and returning same route, west of Denver, Colorado Springs or Pueblo, will bear final return limit of 30 days, and those reading in one direction via Alamosa and in other direction via Ridgway, Colorado, will bear final return limit of 60 days.

Stopovers will be permitted at all

points on going and return trip within final limit.

Validation of Tickets—Tickets to Mancos, Colorado, will be validated for return passage by Agent for Rio Grande Southern Railroad, while those sold to Mesa Verde National Park will be validated at Spruce Tree Camp, Mesa Verde National Park, Colorado, or by Agent for Rio Grande Southern Railroad at Mancos, Colorado.

Baggage—Baggage should only be checked to Mancos, Colorado. Auto-Stage Company will carry not to exceed fifty pounds free allowance. Persons having baggage in excess of fifty pounds can make special arrangements at Mancos, Colorado, with Kelly & French Auto Livery Company for its transportation to Mesa Verde National Park and return.

Baggage Storage Charges—Storage charges account of baggage left at Mancos Station by passengers touring Park will be waived by the Rio Grande Southern Railroad Company, upon presentation of return portion of round trip ticket.

Full particulars will be cheerfully furnished on application to any
Denver & Rio Grande Passenger Representative, or
FRANK A. WADLEIGH, Passenger Traffic Manager
Denver, Colorado

CLIFF RUINS IN MESA VERDE NATIONAL PARK



Balcony House



Spruce Tree House

MAP OF AROUND THE CIRCLE TOUR

of the
DENVER & RIO GRANDE RAILROAD
Showing Location of Principal Scenic Attractions,
Cliff Dwellings and Indian Pueblos

