

1932  
Annual Report

THE SOUTHWESTERN NATIONAL MONUMENTS.

Frank Pinkley, Superintendent, Coolidge, Arizona.

General.

Travel throughout the Southwestern Monuments will show a decrease for the travel year 1932, by the time the attendance figures are tabulated. This can, in a general way, be attributed to the general depressed economic conditions, but, bad roads, at various times, were a contributing factor, at some of the monuments. The monuments located on or adjacent to main highways did not suffer from this cause, as did those located on side roads. Some stress must be placed on the fact that although the travelling public took advantage of the convenience in visiting monuments on or near main highways, apparently lack of funds kept many from attempting visits to monuments not so situated. For a part of the year, uncertain conditions at the Rio Puerco kept the travel attendance from reaching a better figure at the Petrified Forest. These conditions have now been eliminated by the completion of the bridge across the river, and the completion of the road across the monument. 7

The fact that the road between Tucson and Nogales was under construction for a good part of the time kept a lot of travel from going on to Tumacacori. The more or less general poor road conditions in many other places was in responsible for less ~~of~~ travel figures, especially when coupled with the general depression. The gravelling and oiling of a 13 mile stretch of road south of Chandler, which has been contracted for, will complete the last link in a continuous paved and oiled road from Phoenix to Tucson, and should mean increased travel for Casa Grande. However, general road conditions near many of the monuments will continue to handicap travel for years to come.

### Administration.

The Southwestern Monuments, during the year, were administered by the Superintendent, the Chief Clerk, the Park Naturalist, 7 full-time custodians, 5 part-time custodians, 6 permanent rangers, 9 temporary rangers, 1 temporary ranger-naturalist, and one laborer (the latter appointment beginning July 1).

### Additions to Monument Areas.

On February 25, 1932, the President signed a proclamation transferring the jurisdiction of the Bandelier National Monument from the Forest Service to the National Park Service. This area is located northwest of Santa Fe, New Mexico, and comprises 22,075 acres. On March 17, 1932, the President signed a proclamation creating the Great Sand Dunes National Monument in Colorado. This area contains approximately                      acres. Thus, the Southwestern Monuments have been increased to 20 in number. Approximately 6,000 acres were added to the Blue Forest area of the Petrified Forest, through trade for outlying tracts.

### Construction and Improvements.

A great deal of construction work was accomplished, during the year. The following construction was completed at Aztec Ruins: a custodians residence; a public comfort station, and a tool and implement shop. A contract was entered into for the furnishing of irrigation water for the monument. Electric light service has been secured from the local electric company, and telephone service has also been installed. The road between Aztec and Durango is being improved, and will result in an increase in travel from that direction.

At Casa Grande, the following construction was completed: gravelling and oiling of three-fourths mile of stub road from the monument entrance to the parking area in front of the administration building; gravelling and oiling of the parking area; woven wire fence on two sides of the monument (the other sides being protected by irrigation canals); the building of an attractive entrance with massive wooden gates; administration building and comfort station;

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residence for the Superintendent; residence for the custodian; a tool and implement shop. Two residence previously completed were wired for electricity. A 2 K. W. automatic Kohler light plant was installed, with a 2 K. W. non-automatic Westinghouse plant in reserve. The picnic- and camping area was enlarged and a large shade built as well as six fireplaces for cooking. Contract has been entered into for the construction of a shelter over the Big House, and work is expected to commence with cooler weather.

At Chaco Canyon, some repair of ruins was done, mostly with local Indian labor. Arrangements have been made, which will insure us a good supply of water from private holdings, until such time as we will be able to install our own. The private land situation in that monument seems to preclude any early development.

Fences and roads were repaired at El Morro and a cattle guard installed. Some fireplaces were built for the campers. Considerable work was done on the road leading to the top of Capulin Mountain, and the use of a maintaining machine was secured from the county. The road was kept in good shape throughout the greater part of the year. Trails were repaired and enlarged at Natural Bridges, and road from Blanding greatly improved.

A residence for the custodian at Gran Quivira is under construction and contract has been entered into for the drilling of a well for a water supply. The water supply has so far consisted of a 40 barrel cistern in which rain water was caught. The monument road was gone over and put into shape, and some necessary repairs were made on the old ruins.

At Montezuma Castle, a public comfort station is under construction and a sewer system has been completed. New ladders leading to the cliff-dwelling were built and installed. These ladders are more securely built and more comfortable to use than the old. A retaining wall was built against the hillside west of the museum. This was necessary on account of the erosion that followed each rain, when both the hillside and the road were endangered.

At Pipe Spring, some necessary repairs were made on the old buildings. A good deal of work was completed at Petrified Forest. The following construction was completed: a 16 mile stretch of gravelled road across the monument;

bridge across the Rio Puerco; administration building, a residence for the custodian; two ranger quarters, and a tool and implement shop. A public comfort station and a rangers quarters have recently been contracted for, as well as the drilling of a well for a water supply. The parking area in front of the administration building has been greatly improved, and some trails laid out leading to the various section of the monument. A 2 K. W. automatic Kohler light ~~plant~~ plant was installed, with a 2 K. W. non-automatic Westinghouse plant in reserve.

We have completed the following construction at Tumacacori; a rangers quarters, a public comfort station, and a tool and implement shop. A sewer system was also built. A pump engine was purchased and installed to insure a dependable water supply, which was not possible with the windmill. The monument was fenced with woven wire, and considerable work was done repairing the walls of the mission. The Tucson-Nogales highway construction was completed some time ago. The completion of the rangers residence will release the old priest quarters, heretofore occupied by the ranger. The building will receive such remodeling as is necessary and will be used to house the museum collection which has gradually been built up at this monument.

Funds have been allotted for road work and other improvements at Casa Grande, Montezuma Castle, Petrified Forest and Tumacacori.

Topographical maps were made by the Engineering Department of the following monuments: Aztec Ruins, Casa Grande, Chaco Canyon, Gran Quivera, and Montezuma Castle.

#### Museum & Education.

Museums are maintained at the following monuments: Aztec Ruins, Casa Grande, Chaco Canyon, Gran Quivera, Montezuma Castle, and Petrified Forest. An interesting collection has been made at Tumacacori, which will shortly be exhibited in the old priests' quarters of the mission. The collections at Casa Grande and Petrified Forest were moved from their old locations into new exhibit rooms in the new administration buildings. Several new exhibits were added to these collections and the display in both places shows up very well.

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(A supplementary report by the Park Naturalist on this feature is attached.)

Visitors are furnished guide service, and are contacted practically 100 percent at the following monuments: Aztec Ruins, Bandelier (seasonal), Casa Grande, Chaco Canyon (seasonal), El Morro (seasonal), Gran Quivera, Montezuma Castle, Natural Bridges (seasonal), Petrified Forest, Pipe Spring, and Tumacacori. We are still working the educational program under a handicap owing to shortage of personnel, but believe that we have made some worthwhile progress.

#### Camp Grounds & Sanitation.

Considerable progress was made in sanitation by the erection of modern comfort stations at Aztec Ruins, Casa Grande and Tumacacori. Comfort stations are now under construction at Montezuma Castle and Petrified Forest. The drilling of wells, now contracted for, will insure a water supply for these comfort stations. Camp grounds have been improved and enlarged at several of the monuments, and plans for better disposal of garbage are under way.

#### Equipment.

New equipment as follows has been added: a five-passenger sedan for the Superintendent; a five-passenger sedan for the custodian at Petrified Forest; a dump truck, and a light pick-up truck for the Petrified Forest. A heavy second-hand truck was transferred to the Petrified Forest from the Bureau of Public Roads. Two light pick-up trucks were also transferred from the Bureau of Public Roads, for general use among the monuments. Two automatic 2 K. W. Kohler light plants were purchased, second-hand at a real bargain, and one installed at Casa Grande and one at Petrified Forest. Five non-automatic Westinghouse light plants were transferred from the Department of Commerce. One of these was installed at Casa Grande as a reserve unit, and one at Petrified Forest. The remaining plants have been taken to Gran Quivera, Montezuma Castle, and Tumacacori, where they will be installed soon.

A number of fire-extinguishers were purchased, and have been distributed among the various monuments, according to the number of buildings.

Special Occasions.

Easter sunrise services were held on Easter morning at Casa Grande. These services were sponsored by the various churches in the valley, and are intended to become an annual event in the future. The dedication of the Rio Puerco bridge at Petrified Forest was held on July 3, 1932, in which Governor Hunt of Arizona participated. The Director took part in the ceremonies and formally accepted the bridge on behalf of the National Park Service. On July 4, the unveiling of the Stephen T. Mather memorial plaque was held, at the administration area. The Director was present and took part in the exercises. The Superintendent was present on both occasions. The proposed memorial services for the Stephen T. Mather memorial plaque at Casa Grande, which were scheduled to take place on the same date, were postponed until later on account of the extremely hot summer weather.

Miscellaneous.

The Superintendent, together with Custodian Smith of Petrified Forest, attended the conference held in Hot Springs National Park in April. During the year the following officials visited the ~~monuments~~ monuments: Director Albright who in company with Superintendent Pinkley made a two-week inspection trip to the following monuments, in the order named: Gran Quivera, Aztec Ruins, Hovenweep, Natural Bridges, Navajo, Canyon de Chelly, Petrified Forest. Dr. H. C. Bryant, Assistant Director, visited Aztec Ruins, Chaco Canyon, El Morro, Petrified Forest and Casa Grande. Dr. Carl F. Russell, Field Naturalist, spent considerable time at Casa Grande and Petrified Forest last winter, assisting the Park Naturalist with arrangement of the museum exhibits at these monuments. Chief Engineer Kittredge and Chief Landscape Architect Vint made several official visits during the year, as well as several of their assistants. Sanitary Engineer Housen, of the Public Health Service, was also a visitor last winter, on official business in connection with his work.

In conclusion.

Much has been accomplished in our division during the past year, especially in construction work and general physical improvements. The educational end of the service has been considerably enlarged. Progress in museum installation has been made, especially at Casa Grande and Petrified Forest. As educational opportunities are expanded at these monuments, and as developments get under way at some of the newer monuments, increases in personnel and educational equipment will become absolutely necessary.

On account of the decrease in travel, we were able to give more time to other matters that were important. We are well pleased with what was accomplished, but much remains to be done.

## Travel by Monuments:

Arches	..... Hovenweep	.....
Aztec Ruins	..... Montezuma Castle	.....
Bandelier	..... Natural Bridges	.....
Canyon de Chelly	..... Navajo	.....
Capulin Mountain	..... Petrified Forest	.....
Casa Grande	..... Pipe Spring	.....
Chaco Canyon	..... Rainbow Bridge	.....
El Morro	..... Tumacacori	.....
Gran Quivera	..... Wupatki	.....
Great Sand Dunes	..... Yucca House	.....

### EDUCATION:

In educational activities during the past year marked progress has been made. Well designed administration and exhibit buildings have been occupied since early in 1932 at both the Petrified Forest and Casa Grande. These are among the most handsome museum units in the national parks system.

### PETRIFIED FOREST

#### In the Museum:

Two spacious exhibit rooms were made available for display use at the Petrified Forest. Sheer beauty of the richly colored petrified wood is the dominant note in the main room. Beautiful factory made Bumpus Style cases were made possible through the Mrs. Leviston donation. These are in keeping with the neat interior.

The central case contains the finest specimens of precious and semi-precious stones found in the region. Polished log sections are arranged about the room on benches which are to be soon replaced by nicely finished individual pedestals. Two cases contain fossils of Upper Triassic reptiles and amphibians collected locally by Dr. Charles L. Camp, Director of the Museum of Vertebrate Paleontology, University of California. The specimens were prepared in the laboratories by Dr. Camp and to him we are indebted for the loan of these unexcelled exhibits.



The Naturalist's Preparation Room which occupies the east wing of the building has been turned into an exhibit room. Panels were prepared to illustrate the highlights in the story of the Petrified Forest. Leading questions which are carefully answered with labels accompanying the charts and petrified wood specimens are as follows: "During which stage of the Earth's history were the trees growing?"; "How did the trees turn to stone?"; "How do we account for the great variety of colors and their distribution?"; "How are the varieties of semi-precious stones distinguished?"; "Why do crystals often form in the seams and cavities?"; "What crystals are found?"; "What other forms of life were contemporary with the growth of the trees?" The designs for these panel exhibits were drawn up by the Park Naturalist several weeks prior to Dr. Russell's trip to Southwestern Monuments. In that way we were able to make all necessary preparations before his arrival so that as much as possible could be accomplished during his brief stay.

#### In the Field:

At the Petrified Forest one of the most unique Nature Trails in the National Park Service has been laid out. It takes off immediately at the back doors of the main exhibit room taking the visitor straight into the finest area of petrified wood in the world. This arrangement whereby the museum is a very necessary but somewhat secondary adjunct to the real thing itself seems to approach the ideal most desired.

Trails have been made from parking areas into the Third and Second Forests. Frequent guided parties are taken on the Rainbow Forest trail while occasionally especially interested groups are given guide service over the others.

#### Library:

A nucleus of a good library is started. Many references of general interest have been secured. Nearly all of the U.S. Geological Survey works have been procured through the cooperation of the Washington Office. In the future we hope to build up quite a library on best references in geology, ethnology, archeology, ornithology and natural history of the region.

### CASA GRANDE

#### In the Museum:

Three exhibit rooms and a preparation room are available for museum materials at Casa Grande. Plain cases of pine without glass were made with the limited money available. These will have to serve until adequate factory-built ones are obtainable. Materials that have been accumulating under Mr. Pinkley's supervision for more than twenty-five years have been arranged and classified. A working plan was submitted by <sup>the</sup> ~~this~~ Park Naturalist several weeks prior to Dr. Russell's trip. Upon his arrival control labels for all materials were made. Charts and maps showing (1) dispersion of Man-kind; (2) the Southwest Culture Area; (3) Food Areas; (4) Subdivisions of the Southwest Culture *area*