

THE  
ANNUAL REPORT  
OF THE  
SOUTHWESTERN  
MONUMENTS  
1936

DEPARTMENT OF THE INTERIOR  
NATIONAL PARK  
SERVICE

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Jul 1, 1936

The Director  
National Park Service  
Washington, D. C.

Dear Mr. Director:

The Annual Report of Southwestern Monuments for the fiscal year ending June 30, 1936, follows:

GENERAL

General Weather Conditions:

June; 1935, was a month of abnormally low relative humidity. This fact, together with the usual range of warm summer temperatures, combined to make this month one of extreme fire hazard in the timbered monuments such as Bandelier, Chiricahua, Walnut Canyon and Sunset Crater.

November and December brought snowfall and cold weather generally all through the northern part of the district. In February and March, 1936, there were series of cold waves and snow storms that discouraged travel to Walnut Canyon for weeks at a time.

General Road Conditions:

The greatest improvements in roads outside the monuments seem to have taken place during the fiscal years 1934 and 1935 and are described in detail in annual reports for those years. However, the following projects were recently completed or are in progress: (1) road widening and beautification in the Salt River Valley region about Phoenix; (2) continued paving of Highway No. 66 in Arizona and the completion of the Laguna Cutoff in New Mexico; and (3) improvement of the Ganado-Chambers and the Ganado-Gallup roads affording easier access to Canyon de Chelly. Consideration was given to an improved approach road into Pipe Spring from Fredonia for construction with Service funds. It appears that secondary roads in the vicinity of Gran Quivira have received better attention with the exception of the Mountainair to Gran Quivira section which continues to be sadly neglected:

Monument Road Conditions:

The entrance road into Bandelier and Bonita Canyon Highway in Chiricahua have been maintained with CCC labor and equipment, augmented by equipment purchased with roads and trails funds. Maintenance has been performed under roads and trails funds on the White Sands entrance road. The approach roads to Wupatki and Montezuma Castle have received better than usual maintenance. All in all, monument road conditions are better

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## Monument Road Conditions (Cont.)

this year than ever but there is yet much to be done. Pipe Spring, Walnut, Wupatki, Sunset Crater, Navajo, Canyon de Chelly, Tonto, Chaco Canyon, El Morro, and Natural Bridges are among monuments where much must still be done to improve road conditions.

### ADMINISTRATION

The 1935 Annual Report contained a list of our personnel as of October 1, 1935, together with changes that occurred to, and including, September 1, 1935. Since the latter date the following changes have taken place: (1) Custodian W. H. Smith of Gran Quivira National Monument was retired because of disability; (2) Custodian George L. Boundey of Tumacacori National Monument transferred to the position left vacant by Mr. Smith's retirement; (3) Junior Park Naturalist Louis R. Caywood, Southwestern Monuments, by transfer assumed the duties of Custodian, Tumacacori National Monument; (4) Ranger Charlie R. Steen of Casa Grande National Monument became Junior Park Naturalist filling the post made vacant by Caywood's move; (5) and Ranger Don Erskine of Colorado National Monument, loaned to Southwestern Monuments during the construction period at that monument, transferred to the vacant Casa Grande ranger position; (6) Ranger Martin O. Evenstad transferred from Tumacacori National Monument to Muir Woods National Monument.

In the 1935 Annual Report Robert W. Hart, Jr., reported as having been recommended for appointment to the position of Ranger-Archeologist, Aztec Ruins National Monument, entered on duty September 15.

During the fiscal year 1936, the following temporary positions have been filled: (1) Jerome Hendron, temporary ranger, Bandelier; (2) Alfred Peterson, second temporary ranger, Bandelier, effective July 1, 1936; (3) Doug Harritt, temporary ranger, Canyon de Chelly; (4) Woodrow Spires, temporary ranger, Tonto, effective July 1, 1936; (5) Paul Beaubien, temporary ranger, Walnut Canyon; (6) Paul Beaubien, temporary Ranger, Saguaro, during winter months; (7) James W. Brewer, temporary ranger, Wupatki; (8) Milton Wetherill, temporary ranger-historian, Navajo, effective July 1, 1936; (10) Deric Nusbaum, "Roving Ranger", headquarters, listed under Yucca House; and (11) the position of ranger-historian, Casa Grande, will remain vacant until the heavy travel which occurs during the winter months.

Under ECW a number of student technician positions have been made available to the National Park Service. Mr. Clarence Cole is filling the position provided for Headquarters, Southwestern Monuments, and is assisting chiefly in the office of the Naturalist Division.

Table showing total positions approved as of June 30, 1936, is appended.

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## Administration (cont.)

### Publicity Bulletins:

For a number of years we have been needing popularized literature on many of our national monuments for distribution to especially interested visitors. Progress along these lines has been made with the preparation of the following mimeographed information circulars: (1) An Aztec Ruins pamphlet of about six pages; (2) an Aztec Ruins article of two pages mimeographed on one letter size sheet; (3) re-issue of a Bandelier bulletin of several pages; (4) a Chiricahua bulletin of about four pages; (5) re-issue of a leaflet on Montezuma Castle; (6) Natural Bridges circular of about four pages; (7) Pipe Spring circulars comprising a pamphlet of several pages; (8) Tonto circular of about three pages; (9) White Sands leaflet; and (10) a leaflet for Wupatki. In addition to these popularized articles a number of special reports have been issued in mimeographed form including the following: (1) San Jose de Tumacacori, a Pictorial Restoration, by J. H. Tovrea; (2) Life Forms on Hohokam Pottery by Fast and Caywood; (3) Sunset Crater Geological Report by Vandiver; (4) Walnut Canyon Geological Report by Vandiver; (5) Navajo Geological Report by Vandiver; (6) White Sands Geological Report by Vandiver; (7) The Tumacacori Choir Loft Problem by Pinkley and Tovrea; and (8) Bird Banding in Southwestern Monuments, fiscal year 1936, assembled by Dale S. King. These popularized articles and special reports are giving us much needed literature for reference and for distribution to visitors. Early in the new fiscal year we hope to increase this list to include practically all monuments not covered in the leaflets and pamphlets thus far issued.

### Protection:

For the fiscal year ending June 30, we are able to report more effective protection of national monuments due to the increased number of permanent and temporary employees assigned to our organization. Effective July 1, 1935, temporary ranger positions were approved for Canyon de Chelly; Chaco Canyon; Bandelier, giving this monument its first temporary position; and Hovenweep, the Headquarters "Roving Ranger" position. Also during the winter months of 1935-36 Custodian Al Bicknell of Craters of the Moon National Monument and Don Erskine, then ranger, Colorado National Monument, assisted in Southwestern Monuments for a number of months. Bicknell relieved the critically understaffed situation at Casa Grande while Erskine tided us through the months of lean travel but of greatest danger of vandalism at Walnut Canyon.

Looking over the protectional personnel situation as we go into the new fiscal year, we are going to be able to give better visitor service and protection in 1937 than heretofore. (1) The period of service of the first temporary ranger at Bandelier has been increased from 4 months to 8 months; (2) a second temporary ranger position for 4 months is approved for the new year; (3) the Canyon de Chelly position formerly holding for 4 months has been extended to 6 months; (4) a 4 months' seasonal

## ADMINISTRATION (CONT.)

ranger-historian position which has been critically needed for a number of years at Casa Grande has been approved; (5) the 4 months' seasonal ranger position at Chaco Canyon has been reallocated to the grade of ranger-historian for 4 months; (6) a full time permanent custodian is provided at Chiricahua in lieu of the 5 months seasonal position of previous years; (7) a position of full time custodian at El Morro is approved in lieu of the 1/5 time custodian and 5 months seasonal ranger positions formerly obtaining there; (8) the 3 months seasonal ranger position at Navajo has been reallocated to seasonal ranger-historian for 5 months per year; (9) the seasonal ranger position at Saguaro originally provided for 5 months has been extended to 8 months; (10) the 4 months Tonto seasonal ranger position is now increased to 6 months; (11) likewise the Wupatki 3 months seasonal ranger position is now increased to 8 months; (12) the 5 months seasonal ranger post at Walnut Canyon will now hold for 8 months; (13) similarly, the "Roving Ranger" position set up formerly for 3 months is now extended to 6 months; and (14) one of the two junior park naturalists, Southwestern Monuments, is assigned to the field for many months of the year for relief duty. Approval of these changes was received during, and affected planning for fiscal year 1936, though they actually do not become effective until July 1, 1936.

While the above extensions provide for basic protection and visitor contacts, and are very encouraging, there are yet a number of critical situations which need to be remedied. (1) Until a temporary ranger position, at least, is provided for Arches that monument will continue to receive little maintenance and visitor service; (2) the situation at Capulin is similar to that at Arches but will be considerably corrected by the appointment of the present nominal custodian on a 1/5 salary, year-round, basis, approved for f.y. 1937; (3) the appointment of a full time custodian at Chiricahua merely alleviates the crisis at that monument and upon termination of CCC assistance in protection and maintenance, the custodian will have dire need of additional permanent and temporary help; (4) Saguaro merits a permanent position with temporary ranger assistance in winter months; (5) Sunset Crater is neglected without at least the services of one temporary ranger during the travel season; (6) Tonto cannot be cared for properly with anything less than one full-time custodian; (7) Walnut Canyon, operating now with one seasonal ranger as the only personnel, should have a full-time man plus one seasonal ranger; (8) the absolute minimum for satisfactory service at White Sands would be a full-time custodian with one seasonal ranger. We now have neither. These acute needs in personnel are listed to show that not all of our basic requirements were solved by the increases of the past fiscal year, and those provided for f.y. 1937.

### Signs:

During the fiscal year just closed, directional and informational signs have been erected at a number of monuments including Wupatki, Walnut Canyon, Bandelier, Sunset Crater, and Navajo National Monuments.

ADMINISTRATION (CONT.)

It is believed that directional signing now makes it possible for visitors to reach all monuments at which we are staffed to receive them, without confusion. Occasional complaints are received because of the condition of approach roads and the lack of directional signs to dormant monuments like Yucca House and Hovenweep where we have no personnel to afford protection and visitor service after visitors get to them. It is our belief, however, that visitors should not be induced to come to these unprotected monuments.

Sanitation:

Comfort station facilities have been provided during the year at Gran Quivira, Chiricahua, and Bandelier. Due to failure of the sewer system at Casa Grande a considerable menace to health of visitors and employees exists and makeshift methods are being resorted to in order to make the system function. Late in the fiscal year, however, an allotment of PWA funds was made to correct the trouble. Actual work will be performed in f.y. 1937.

Office Detail:

The following report is made of incoming and outgoing official mail and official telegrams handled by the Southwestern Monuments Headquarters office for the fiscal year 1936:

Incoming Mail -----	15,896 pieces
Outgoing Mail -----	<u>19,317 pieces</u>
Total pieces official mail handled -----	35,213
Incoming Telegrams -----	428
Outgoing Telegrams -----	<u>475</u>
Total telegrams handled -----	<u>903</u>
Grand Total Mail and Telegrams for Fiscal Year	36,116

By word of explanation, the above total count does not include personal mail and personal telegrams which are received and are dispatched from this office by virtue of its location on a rural route.

The following figures give additional indication of office volume:

Purchases completed and vouchers prepared	
Regular appropriations and PWA -----	1,555
Purchases completed and vouchers prepared	
Under ECW -----	<u>1,315</u>
Total	<u>2,870</u>

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ADMINISTRATION (CONT.)

These totals are indicative of an impressive volume of office work handled by a very small staff. The bare figures are sufficient to explain why large amounts of overtime were required of office personnel.

VISITOR CONTACTS

The travel year does not end until the close of September 30 and for that reason the visitor data submitted herewith hold true for only three quarters of the year. While the complete report for the travel year will appear in due time, visitor service totals for the nine months just elapsed are included in this report. This is the first year that field men have kept detailed daily records on visitor service and for that reason the nine months totals are highly significant. The following interpretations of the tabulation headings are made:

Field Trips:

"Field trips" in Southwestern Monuments include all trips made with groups of visitors under the guidance of custodians, rangers and others doing public contacts duty. Figures for the past nine months show the following:

10,559 trips ----- 60,809 attendance

Average attendance per group ----- 5.9

Museum lectures:

"Museum lectures" in Southwestern Monuments include groups of visitors personally guided through museums. Nine months figures:

4,478 groups ----- 27,592 attendance

Average attendance per group ----- 4.15

Museum Unattended:

"Museum Unatt'd." in Southwestern Monuments include groups of visitors who visited the museums without personal guidance by rangers, custodians and other personnel doing contacts duty. Figures for nine months:

1,048 groups ----- 9,260 approximate attendance

Average attendance 8.8 persons.

Lectures Outside:

"Lectures outside" include lectures given to schools, CCC Camps, scientific societies, civic clubs and others. Figures for nine months:

VISITOR CONTACTS  
NINE MONTHS TABULATIONS SUMMARY BY MONTHS  
OCTOBER 1935 - JUNE 1936 INCLUSIVE

MONTHS	FIELD TRIPS		MUSEUM LECTURES		MUSEUM UNATT'D.		LECTURES OUTSIDE		MISC.		TOTAL EDUC. CONTACTS	TOTAL TRAVEL
	NO	ATT.	NO	ATT.	NO	ATT	NO	ATT	NO	ATT		
OCTOBER	1045	6760	389	2805	175	1481	1	115	313	1157	12,318	12,608
NOVEMBER	1072	6354	295	1859	171	1365	7	485	156	584	10,647	11,309
DECEMBER	926	4769	284	1508	30	1793	1	20	70	402	8,492	8,525
JANUARY	964	6528	461	3008	128	1072	20	2283	289	1156	14,047	14,044
FEBRUARY	1141	7200	474	3369	81	711	11	1084	96	460	12,824	13,859
MARCH	1274	7328	535	3474	85	691	7	341	180	931	12,785	15,379
APRIL	1486	8715	642	4310	185	1100	0	0	25	79	14,204	18,830
MAY	1095	5972	614	3222	139	775	5	531	27	156	10,656	22,833
JUNE	1555	7124	784	4037	54	272	1	35	206	902	12,370	23,838
TOTALS	10558	60770	4478	27592	1048	9260	53	4894	1362	5827	108,343	141,225

Lectures Outside (Cont.)

53 lectures ----- attendance 4,894

Average attendance ----- 92 each lecture

Miscellaneous:

"MISC." indicates contacts made through informal talks at ranger stations, in official offices, at lookout points and under other conditions where educational services not covered by the headings are provided. For nine months:

1,362 groups ----- 5,827 attendance

Average attendance ----- 4.3

Total Contacts:

"Total Contacts" include the total attendance under all of the above headings. Obviously, many of the same people who are counted in field trip attendance visit the museums and are counted in the Museum Lecture totals and in the "contacts totals" are thus counted twice. Adjusting the figures to eliminate the "double contacts" the following computations are necessary:

Total visitor contacts for nine months ----- 108,392  
Less Museum lectures; "Museum Unatt'd"; lectures  
outside; and "Misc" (except at White Sands) 44,452

Total different people contacted ----- 63,930

VISITOR CONTACTS (CONT.)

Total contacts percentage ----  $\frac{\text{total contacts } 108382}{\text{Total travel } 141215} * 77\%$

Percent of total individual visitors

contacted:  $\frac{\text{Total Diff. People served } 63930}{\text{Total visitors } 141215} = 45.5\%$

To derive the number of visitors who received no services:

Total visitors for nine months ----- 141,215 --- 100%  
Less--Total individual visitors served ---- 63,930 --- 45.5%

Total obtaining no contacts service--77,285 --- 54.5%

The conclusion to draw from the above figures is that we are yet unable to deliver service to more than half of our total number of visitors. The remaining three months of the travel year will not materially change these percentages because during those months travel increases while number of visitors contacted remains about the same as for June. A further observation is that the nine months travel figure is 141,215. The period for the last travel year corresponding to the remaining three months of the current travel year gave a visitor count of more than 20,000 per month for those months. If the remaining quarter of the travel year averages as well - and there is every indication that it will do so - Southwestern Monuments will set a new travel record at more than 200,000 visitors.

Improvements contemplated:

It is believed that in general the quality of contacts work done has improved considerably over that of past years. The following factors contributed to this improvement: (1) The Monthly Report, particularly the Supplement, and the various Special Reports are effective in supplying custodians, rangers, ranger historians and others with important information on their monuments as well as the system as a whole; (2) nine leaflets and pamphlets containing popularized articles on monuments have been prepared for distribution to visitors and these serve to familiarize new men with basic facts; (3) the Headquarters Library has been organized and a loan system is functioning whereby important reference books have been circulated on loan among the monuments; (4) better visitor service records have been kept by field men during the year, resulting, it is believed, in each man giving a little better and more consistent type of visitor service; and (5) a system of individual monuments inspections has been devised which results in field men making conscious efforts to improve all phases of management of their monuments including public contacts.

Desirable improvement is planned in the matter of personal observation and guidance of new men entering on duty at the various field stations. It is hoped that monuments can be visited early in the season by

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PUBLIC CONTACTS (CONT.)

headquarters personnel, for the purpose of giving the newly appointed temporary men some assistance in the technique of conducting guided trips. During such inspections, faulty habits of English; availability of basic information; objectionable mannerisms; matters of tact and group leadership, can be made the subject of frank discussions and definite improvement initiated. This matter, fortunately, has been given some attention in the regular inspections of monuments made during the past fiscal year.

Another opportunity for improvement lies in devising more convenient forms for visitor service tabulations. Blank forms for the summarization of visitor service are now being made and will be supplied to the various monuments. Improvements along this line are reducing the time required for tabulation of visitor data in the headquarters offices.

The problem of visitor service at Walnut Canyon, Bandelier, Saguaro and Chiricahua will be made the subject of more careful study. The present staff provided at these monuments cannot handle the situation adequately, but the most effective methods of visitor contacts possible with the personnel available should be worked out.

MUSEUM PLANS AND EXHIBITS

Exhibits for the new museum at Aztec Ruins National Monument were prepared by the Field Division of Education and installed during the year. An allotment of PWA funds has been made available to the Field Division of Education for purchase of additional cases and the completing of the Aztec exhibits.

An acceptable exhibits plan for the Bandelier Museum prepared by the headquarters staff, cooperating with the custodian, has received the necessary approvals and preparation of exhibits is now in progress.

A preliminary plan on the proposed Tumacacori Museum prepared by Field Naturalist C. P. Russell has been revised by Arthur Woodward of Field Division of Education and sent through for necessary approvals. A small allotment of funds is available to the Field Division for purchase of cases and preparation of exhibits.

The headquarters staff prepared a preliminary museum plan on Montezuma Castle. This plan, revised by the Field Division of Education, has been approved and a small allotment of funds is now available to the Field Division of Education for preparation of exhibits and purchase of cases.

Another allotment is set up to the Field Division of Education for the purchase of museum cases for Casa Grande National Monument. Just as soon as dimensional details are decided upon the order will be placed.

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MUSEUM PLANS AND EXHIBITS (CONT.)

Gifts and Accessions:

Educational activities have been facilitated by the receipt of equipment, supplies and materials listed as follows:

From the Field Division of Education:

- 25 botanical presses
- 225 stack trays for museum storage
- 7 study skin cases used also for perishable materials of all kinds
- 8 government sparrow traps
- 6 woodpecker traps
- 3 wax feet for footgear displays
- 1100 aluminum labels for cacti
- 2000 metal stands for mounting labels
- 1 set of pyrite mirror reconstructions
- 162 lantern slides on monuments and parks subjects.
- 150 colored lantern slides on Kino Chain of Missions
- 300 enlargements of missions pictures
- 500 fillers for photo album

From other sources:

- 1 Hohokam Pithouse model from Grand Canyon
- 25 Tuzigoot Ruin reports by Caywood and Spicer, bound by Field Division of Education.
- 36 Valuable volumes of University of California Publications from the University Press.
- 57 Annual Reports and Bulletins of the B.A.E. received from the Bureau of American Ethnology and from Dr. H. C. Bumpus.
- 9 publications from the University of Arizona

A consignment of new bookcases equivalent to about 100 running feet of shelf space has been ordered for the Headquarters Library. Books now subject to loss and deterioration will be properly cared for while control of the loan system will be greatly facilitated. A great many valuable volumes are now accumulating and the loan library is becoming a most important phase of the educational program.

Other improvements made in the headquarters office for the year include (1) perfecting of subjectively classified pamphlet filing system; (2) organization of files and forms for keeping visitor service records; (3) the development of a photographic enlargements file; (4) preparation of an album of Kino Missions enlargements for use in the educational program at Tumacacori; (5) organization of a most efficient record system in keeping bird banding data; (6) perfection of the loan card file system for library; (7) library cataloguing; (8) cataloguing of the Tonto Museum; (9) cooperation with the Boyce Thompson Arboretum, the University of California and other institutions in obtaining identifications of botanical

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## MUSEUM PLANS AND EXHIBITS (CONT.)

and other specimens; (10) extension of bird banding to a number of monuments; and (11) completion of tree planting projects at Casa Grande for ultimate screening of residence area from ruins and a similar project of planting for screening and beautification at Tumacacori. There is noted also a material increase in outside lecture contacts made possible by our increased supply of lantern slides.

### Bird Banding:

During the fiscal year 1936 bird banding projects in cooperation with the Bureau of Biological Survey were carried on in nine of the 25 national monuments administered by this office. Values gained from these banding activities are threefold: (1) custodians, rangers, and naturalists become increasingly familiar with the avifauna of their region and can more efficiently answer visitor questions and prepare museum exhibits; (2) the accumulating bird records at a monument in time assume importance to visiting scientists and the monuments in time become valuable "scientific sub-stations"; and (3) the normal work of a cooperating government bureau, the Biological Survey, is advanced, and knowledge is accumulated concerning the somewhat incompletely studied ornithology of the Southwest. Southwestern Monuments are understaffed and for that reason banding activities have been carried on as a personal hobby by men while off duty. Only the most highly interested members of our personnel were recommended by our office.

A total of 1,547 birds of 63 species were banded at the nine stations. Seventeen of the species banded by the monument stations were not represented in the Biological Survey totals of 1935, indicating that our work is being done in an area needing more study along these lines. As these birds return to the stations year by year it is certain that the data will become increasingly valuable.

### NEW CONSTRUCTION

A great amount of useful construction has been accomplished at Chiricahua and Bandelier National Monuments under the ECW programs while under PWA some accomplishments are noted at a few others. Listing the new construction by monuments will assist in getting a quick survey of all new work:

#### Chiricahua:

Under ECW we note the following projects completed except where otherwise specified: (1) 10,000 feet of Echo Park Trail; (2) 2,000 feet of Massai Point-Balanced Rock Trail; (3) all poles in place and six miles of wire up for Massai Point-Portal telephone line; (4) grading of service road and utility area 85% complete and surplus material being used to obliterate borrow pits on Bonita Canyon Highway; (5) utility area wall 35% complete; (6) topographic mapping within two months of finished; (7) Ranger Station;

## NEW CONSTRUCTION (CONT.)

(8) Bathhouse; (9) several fireplaces and tables for Massai Point; (10) 5,400 feet of Sarah Deming Trail; (11) headquarters area comfort station; (11) camp ground dip; (12) spring development; (13) Echo Canyon Trail; (14) Water system and reservoir; (15) Bonita Canyon camp ground including fireplaces and dips; (16) Rustler Park Forest Service cabin; (17) nine stall garage and machine shop for ECW equipment; and (18) planting project carried out under direction of forestry foreman.

### Bandelier:

At Bandelier the following work indicates projects completed except as otherwise specified: (1) headquarters comfort station; (2) utility area walls, warehouse and gasoline station building; (3) tent caterpillar eradication; (4) some 600 feet of guard rail on entrance road; (5) camp ground fireplaces and tables; (6) garage building; (7) grading and planting of headquarters area; (8) Frijoles Canyon-Alamo Canyon fire trail; (9) offices unit; (10) museum unit; (11) water system headquarters and camp ground; (12) two residences; (13) conduited power lines; (14) project on sign making in progress; (15) residence area equipment shed; and (16) 1200 feet extension of headquarters sewer system.

### Aztec:

At Aztec a small ECW project has been in progress with labor supplied by neighboring CCC camps at Durango, Colorado, and Mesa Verde National Park. Sheds have been torn down, patio work completed at the rear of the Administration and Museum Building and much clean-up done.

### Canyon de Chelly:

Under PWA a new Custodian's residence and water system have been completed and it is expected that the sewer system will be finished early in the new fiscal year.

### Chaco Canyon:

At Chaco Canyon, under PWA, a boundary fence has been completed. This project required 12,672 rods of fence, 18 gates, two cattle guards and 107 cubic yards of concrete.

### Gran Quivira:

A pumping plant and pump house have been completed under PWA at Gran Quivira.

## MINOR PROJECTS, MAINTENANCE AND REPAIRS

During the year the usual maintenance concerned with repairs to buildings, operation of automotive equipment and the upkeep on small

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## MINOR PROJECTS, MAINTENANCE AND REPAIRS (CONT.)

unit light plants has been performed. These small items, in the aggregate quite important, will not be treated in detail here. Aside from routine current maintenance, repairs and minor projects there are some unusual items worthy of mention. Among these are (1) clearing of rock slides on Bonita Canyon Highway in Chiricahua National Monument; (2) continued maintenance of Bandelier entrance road and Bonita Canyon Highway with ECW labor augmented with special roads and trails equipment; (3) maintenance of White Sands entrance road under special roads and trails project; and (4) trails improvement work at Walnut Canyon, Wupatki, Navajo, Tonto and Saguaro National Monuments.

The small two kilowatt kohler plant at Casa Grande has been failing rapidly for the past several months and the expense of maintaining it has been all out of proportion to the benefits derived. Accordingly, the U.S. Indian Irrigation Service was consulted on the possibility of our contracting for electric power from their lines which run along the monument boundary about a quarter mile from our residential section. A contract was agreed upon and the necessary transmission line from the boundary constructed. Just as soon as certain direct current equipment is replaced with AC, the transfer to this power will be made. Material saving to the government together with greatly improved service will result.

Among other minor projects worthy of note we find (1) completion of the survey and topography on 22 acres of headquarters area at Chaco; (2) Walks and camp ground development at Pipe Spring by CCC labor from a Grazing Division camp;

Items along this line needing attention badly but for which no program exists from which labor and materials can be procured are: (1) improvement of some three miles of spiral road to the summit of Capulin Mountain; (2) improvement of one mile of entrance road at Tonto; and (3) an equipment shed at headquarters, Southwestern Monuments, to house a headquarters equipment pool.

### Expeditions and Research:

An investigation of proposed national monuments was made during the last eight days of June, 1935, which was not adequately treated in the report for fiscal year 1935. It had been considered desirable for a number of years to reserve as national monuments and game reserves two areas in Arizona; one of them the so-called Kofa Mountains area in which occur native palms and the other an area along the International Boundary containing fine stands of Organ Pipe Cactus. Seven days were spent visiting these areas by car and afoot. On June 30, 1935, the assignment was completed by an airplane reconnaissance. Various reports were consolidated in this office, definite boundary recommendations made, and the report with recommendations forwarded to the Washington office and to the late Roger W. Toll.

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MINOR PROJECTS, MAINTENANCE AND REPAIRS (CONT.)

During October, 1935, a reconnaissance party was organized for the purpose of obtaining photographs, architectural drawings, ground plans and historical data on the Kino Missions of southern Arizona and northern Sonora, Mexico. A considerable amount of information, together with nearly 400 photographs, was obtained, all of which will be of value in the preparation of plans and exhibits for the proposed Tumacacori Museum.

Betty Jackson, wife of Custodian Earl Jackson of Bandelier, discovered a small six-room cliff dwelling in Frijoles Canyon about one mile above Ceremonial Cave. To Mrs. Jackson also goes the credit for a second discovery, not so important, perhaps, to the outside world, but one which clears up a bit of puzzling archeology at Montezuma Castle. While inspecting the various rooms of the Castle she observed a blocked doorway which was not previously known. The room had smoke-blackened walls typical of a living room but without evidence of a doorway it was not understood just how the room could have served such purpose. Mrs. Jackson's discovery makes it very clear now how the room could have been used for habitation.

Dr. Chas. B. Lipman, Dean of the Graduate Division, University of California, has been conducting research on dormant bacteria contained within the mud walls of ancient ruins constructed 600 to 800 years ago. Dean Lipman announces that the bacteria come to life after centuries of dormancy when subjected to proper culture.

Of unusual interest to our organization is the excavation of a group of ruins at what is known as Snaketown some 35 miles northwest of Casa Grande National Monument. Excavations are under the direction of the Gila Pueblo, Globe. Actual digging was completed in the spring of 1935 and since that time cleaning and study of materials and the preparation of a report have gone forward in the laboratories of the Pueblo. Particularly important is the fact that the work adds an earlier chapter to Lower Gila Valley archeology and materially augments the story to be told in the ruins and in the museum at Casa Grande National Monument.

During the summer of 1935 the School of American Research and the University of New Mexico conducted their field school in Chaco Canyon National Monument. At the start of the new fiscal year we find them prepared for the 1936 term of the field school.

The Rainbow Bridge - Monument Valley Expedition sponsored jointly by the National Park Service, the Museum of Northern Arizona and the University of California, was in the field in the summer of 1935. The expedition at this writing is in the field ready to begin its work of the summer of 1936. A project of special value is the mapping of some of the unmapped area about Navajo National Monument.

ECW Regional Geologist Vincent Vandiver has given attention to White Sands, Walnut Canyon, Navajo and Sunset Crater National Monuments and as

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MINOR PROJECTS, MAINTENANCE AND REPAIRS (CONT.)

a result of his studies geological reports of basic importance to us have been prepared. These have been published as a series of Special Reports from this office.

RECOMMENDATIONS AND CONCLUSIONS

Southwestern Monuments for the nine months of the travel year now elapsed, have had 141,215 visitors. If the remaining three months show more than 20,000 visitors per month, as they have in past years, we are going to be able to report a record year of more than 200,000 visitors at the close of September 30.

In the same nine months, records reveal 108,382 contacts, some 35,000 of which are "double contacts" and 5,000 outside lecture contacts, leaving 63,930, or 45.5%, as the number of individual visitors actually contacted out of a travel of 141,215 - less than half. This gives 77,285 as the number receiving no services - 54.5% - over half the total visitors. Additional permanent and temporary personnel must be approved for Southwestern Monuments before we can correct this situation. Under "Administration" has been listed at least eight instances of acute personnel needs. If these are met the result will be more effective protection and increased thousands of visitors receiving the personal attention which they are led to expect when visiting a national park or monument.

Museums probably occupy a more important place in historical and archeological areas than they do in the scenic parks and monuments. Museum units are needed badly at approximately nine Southwestern Monuments and would materially augment the educational program at several more. Particularly acute is the need for museums at Tumacacori, Montezuma Castle, White Sands, Walnut Canyon, Wupatki, Chaco Canyon, Chiricahua, Gran Quivira, and Tonto.

There is still critical need for a comprehensive ruins stabilization program among Southwestern Monuments. The initial allotment would have to be large compared with the continuing appropriation needed to maintain the work, once it is done. It is hoped that under some of the programs this important matter can be given consideration.

An enormous amount of good has resulted through the ECW and PWA programs in Southwestern Monuments. I do not wish in the least to discount this good or to show lack of appreciation but I am compelled to point out that, except for about three national monuments, these programs have been lean on items of construction such as residences, equipment sheds, garages, museums, administration buildings, ranger stations, etc. In past years these items were justified under the regular appropriations. Then came instructions to strike them from the regular list and place them in the PWA submissions. This was done. Now with but a few monuments satisfied as to construction needs we are still in about as bad shape as ever in the others. Hence the old cry for more construction in most of the South-

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RECOMMENDATIONS AND CONCLUSIONS (CONT.)

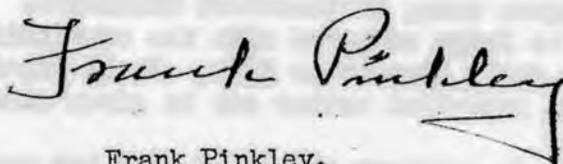
western Monuments must needs still persist. The ECW programs in Bandelier and Chiricahua have satisfied most urgent needs at those units. However, it must be emphasized that where the needs at two monuments are being rather well met, there are perhaps twenty others in our system unable, except in a very minor way (Aztec and Pipe Spring), to take advantage of the ECW programs.

Closing:

I believe a study of this report will reveal that material progress has been made during the past fiscal year. Road conditions in some of the monuments show improvement; new permanent and temporary positions have been approved while terms of employment have been extended in others; a series of popular articles and technical bulletins are providing a fund of valuable information for employees doing contacts work as well as for visitors; more effective protection has been given to many of our monuments; progress is noted in directional and informational signs projects; better visitor service records are kept by monuments resulting in more consistent service; definite advance in museum planning is observed; bird banding results of value to naturalists and ornithologists have been achieved; new construction, though lean, has given us needed items at several monuments; and along lines of research and investigation, valuable contributions have been made by our own men.

All in all, fiscal year 1936 has been one of considerable achievement along several lines. In closing I wish to express my appreciation for the cooperation and loyalty of our field men and of the headquarters staff for their part in making fiscal year 1936 one of most successful in the history of the Southwestern Monuments organization.

Cordially,



Frank Pinkley,  
Superintendent.

# 1936 TRAVEL FIGURES

## By Monuments

For Nine Months of the Travel Year elapsed at the Close of  
the Fiscal Year 1936.

(1935 Travel Year figures entered for Comparison)

MONUMENT	1935 (Full Year)	1936 (Nine Months)
Arches	500*	(No Report) **
Aztec Ruins	10,738	6,265
Bandelier	12,381	5,637
Canyon de Chelly	988	541
Capulin Mountain	24,000*	8,450
Casa Grande	27,345	23,070
Chaco Canyon	6,565	4,495
Chiricahua	6,420	3,158
El Morro	2,475	676
Gila Cliff Dwellings	100*	(No Report) **
Gran Quivira	4,649	2,460
Hovenweep	200*	(No Report) ***
Montezuma Castle	14,919	6,444
Natural Bridges	700	276
Navajo	446	214
Pipe Spring	4,896	2,457
Rainbow Bridge	430*	66 **
Saguaro	9,900*	6,000
Sunset Crater	5,638	1,240
Tonto	5,350	4,959
Tumacacori	13,081	11,171
Walnut Canyon	11,328	4,372
White Sands	33,912	47,599
Wupatki	1,369	1,115
Yucca House	300*	52 **
	198,480 (Travel Year 1935)	141,215 (9 Months of '36)

\* Estimated at close of Travel Year.

\*\*\* No estimate made for nine months; to be made at close of Travel Year.

\*\* Accurate check for only part of period.

$$\frac{141,215}{198,480} \quad 71\%$$

We have had the equivalent of 71% of last year's travel in the 75% of the current travel year that has elapsed. Three of the heaviest travel months of the 1936 Travel Year are yet to come.

Appointive Positions Southwestern Monuments

Approved as of June 30, 1936

Name of Position	Unit
Superintendent	Headquarters
*Assistant Superintendent	Headquarters
Chief Clerk	Headquarters
Clerk-Stenographer	Headquarters
Assistant Park Naturalist	Headquarters
Junior Park Naturalist	Headquarters
Junior Park Naturalist	Headquarters
Custodian (nominal)	Arches National Monument
Custodian	Aztec Ruins National Monument
Ranger-Archeologist	Aztec Ruins National Monument
Custodian	Bandelier National Monument
Park Ranger (Seasonal)	Bandelier National Monument
Park Ranger (Seasonal)	Bandelier National Monument
*Operator, grader equipment	Bandelier National Monument
Custodian	Canyon de Chelly National Monument
Park Ranger (Seasonal)	Canyon de Chelly National Monument
Custodian (part-time)	Capulin Mountain National Monument
Custodian	Casa Grande National Monument
Park Ranger	Casa Grande National Monument
*Historian	Casa Grande National Monument
Custodian	Chaco Canyon National Monument
Park Ranger-Historian (seasonal)	Chaco Canyon National Monument
*Custodian	Chiricahua National Monument
Custodian	El Morro National Monument
Custodian	Gran Quivira National Monument
Custodian	Montezuma Castle National Monument
Park Ranger	Montezuma Castle National Monument
Custodian	Natural Bridges National Monument
Custodian (Nominal)	Navajo National Monument
*Park Ranger-Historian (Seasonal)	Navajo National Monument

Appointive Positions, Southwestern Monuments (Cont.)

<u>Name of Position</u>	<u>Unit</u>
Laborer (Acting Custodian)	Pipe Spring National Monument
Park Ranger (Seasonal)	Saguaro National Monument
Park Ranger (Seasonal)	Tonto National Monument
Custodian	Tumacacori National Monument
Park Ranger	Tumacacori National Monument
Park Ranger (Seasonal)	Walnut Canyon National Monument
Custodian (part-time)	White Sands National Monument
Park Ranger (Seasonal)	Wupatki National Monument
Park Ranger (Seasonal)	Yucca House National Monument

\* Approved prior to June 30, 1936, but funds not available until July 1 (f.y. 1937).